

The Bulgarian Life Insurance Sector: Review and Analysis of Investments



A. Filipova-Slancheva

Abstract The aim of the study is to review and analyze the investment portfolios of life insurance companies in Bulgaria in view of the new regulatory requirements, actual business model trends, and current financial market environment. Investments are an integral part of the life insurance business model. In the study, Bulgarian life insurance sector is examined—regulations on investments, investment policy, and type of investments. Along with this, the accounting approach, accounting treatment, applicable accounting standards, and specific characteristics of all the financial instruments included in the portfolios of Bulgarian life insurance are examined. Last but not least, the paper also investigates whether asset allocation trends for Bulgarian life insurance companies are similar to the trends for European insurance sector.

Data for life insurance companies' investments are obtained from publicly available sources and include five-year period 2014–2018. Respective literature related to life insurance, financial instruments, investments, and accounting standards is reviewed. It is worth mentioning that life insurers are among the largest institutional investors in Bulgaria. Findings show that there have been new specific trends for Bulgarian life insurance companies, in terms of their investment portfolios, list of involved financial instruments throughout recent years. General conclusion is that investments of life insurance companies are changing and rebalancing is experienced with major factors strict regulatory investment limits, low yield environment, change of business model, and conservative risk management approach.

Keywords Life Insurance · Financial Statements · Investments · Accounting · Bulgaria

A. Filipova-Slancheva (✉)

Financial and Accounting Faculty, University of National and World Economy, Sofia, Bulgaria

e-mail: afilipova@unwe.bg

1 Introduction

The insurance business is a business, where insurance companies receive premiums and invest these premiums until claims or benefits become due. In terms of life insurance, it provides an extensive selection of savings and retirement products, through which individuals and businesses can invest for the future. Investments are an integral part of the insurance business model and life insurance business model in particular. Based on the operating strategies of life insurers (claims toward life insurers are generally better estimated) enables life insurers to invest in less liquid assets and long-term assets, while following a buy-and-hold investing strategy. Accumulating long-term funds, in order to match assets and liabilities life insurance companies can provide long-term financing. It is worth mentioning that by long-term financing, they fulfill an important role in the real economy. For example, European institutional investors (pension funds, insurance companies) hold almost 30% of the outstanding European corporate bonds. Hence, their investment behavior could impact market price stability and funding for governments and companies. Academics and policy makers (Borio et al. (2001); Joint FSF-CGFS working group 2009; Papaioannou et al. 2013; Claessens and Kose 2013 and Houben and van Voorden 2014) confirm that procyclical investment behavior (sell assets as prices fall and buy as prices rise) by institutional investors (pension funds, insurance companies) hurts the stability of the overall financial system.

In terms of Bulgaria, the life insurance sector, being a part of insurance sector, is a crucial component of the financial system. This stems from the amount of premiums it collects, the scale of its investment, long-term investments along with the essential social and economic role it plays in covering individual and business risks. Bulgarian life insurance business comprises of life insurance companies, which are registered as a joint stock companies and are regulated by Financial Supervision Commission (FSC). Branches of foreign life insurance companies also operate on the Bulgarian life insurance market, which are not the subject of this study, as they are not supervised by local regulators and they are not included in the statistical forms. At the end of 2018, 16 life insurance companies were operating (11 are regulated and 5 are branches), with total assets EUR 844 mln. From this figure, total investments of life insurance companies are EUR 639.4 mln. (75% of total assets of life insurers), slight decrease compared to December 31, 2017—EUR 644 mln. and 79% of total assets.

In order to measure the development of the insurance market, a gross premium income (GWP) figure is calculated. For 2018, GWP of life insurance companies is EUR 229 mln. vs. EUR 219 mln. in 2017 and EUR 218.9 mln. in 2016. Unlike GWP, which quantifies the amount of premiums written as absolute value, insurance penetration takes into account the change in the role of the insurance sector for economic development. It can be summarized that the insurance penetration in Bulgaria and for life insurance sector in particular is 0.41%—much lower than the average EU insurance penetration of 7%. In Table 1, GWP and Life Insurance

Table 1 GWP and Life Insurance Penetration in Bulgaria

	Gross Written Premium (in EUR mln.)	Life Insurance Penetration	Gross Domestic Product (in EUR billion)
2014	174.1	0.40%	42.75
2015	200.1	0.40%	44.16
2016	218.9	0.40%	47.36
2017	219.0	0.40%	50.43
2018	229.0	0.41%	55.20

Source: Financial Supervision Commission 2018; National Statistical Institute 2019

Penetration in Bulgaria, historical date with these figures is shown for the period 2014–2018 (FSC 2018; NSI 2019).

Life insurers are among the largest institutional investors in Bulgaria. Apart from their importance for the financial system, there is a limited number of articles and research papers on the Bulgarian life insurance market, investments of Bulgarian life insurance companies, investment policy, type of investments, and accounting standards prepared by Bulgarian researchers. Let alone the accounting approach, treatment, and specific characteristics of financial instruments included in the portfolios of Bulgarian life insurance companies. Along with this, from academic perspective, comparison of the Bulgarian case with other EU member state investment trends case is interesting to be explored. Hence, this paper is enriching the existing Bulgarian literature in the field of life insurance, financial instruments, and their accounting treatment, as also shedding light on the comparison of Bulgarian life insurers sector with EU one.

This paper is contributing to the literature with its in-depth review and investigation of the investment portfolios of Bulgarian life insurance sector within certain five-year time frame, where external factors along with new regulations are affecting their investment portfolio composition, while extensively reviewing accounting treatment of the financial instruments included in their investment portfolios. The paper also investigates whether asset allocation trends for Bulgarian life insurance companies are similar to the trends for European insurance sector.

Main findings show that there have been new specific trends for Bulgarian life insurance companies, in terms of their investment portfolios, list of involved financial instruments throughout recent years. Investments of life insurance companies are changing and rebalancing, with bonds and shares having highest share—81% out of total investments as of 31/12/2018. Due to strict regulatory investment limits, low yield environment, change of business model and conservative risk management approach, debt securities and other fixed-income securities (bonds) at the end of 2018 are 70% of total investments vs. 58% 3 years ago. On the contrary, bank deposits have experienced significant decrease throughout the last 3 years—from EUR 50 mln. as of 31/12/2015 to EUR 11.7 mln. as of 31/12/2018 (from 8% to 2% of total investments). Based on the list of financial instruments in their portfolios, life insurers applied the following accounting standards for investments, as issued by

International Accounting Standard Board (IASB)—IFRS 4 Insurance Contracts, which automatically defines IAS 40 Investment Property, IAS 28 Investments in Associates and Joint Ventures, IFRS 11 Joint Ventures, IFRS 10 Consolidated Financial Statements (for control), IAS 32 Financial Instruments: Presentation, IAS 39 Financial Instruments: Recognition and Measurement (respectively IFRS 9 Financial Instruments as of 2022, as IFRS 17 Insurance Contracts Allows Its Later Application), IFRS 7 Financial Instruments: Disclosures and IFRS 13 Fair Value Measurements.

The paper is structured in six parts. First two parts are introduction in Bulgarian life insurance—historic review, actual financial standing of the sector from investment perspective, regulatory and legal framework, and applicable local requirements. The third part is on characteristics of the investments of life insurance companies from accounting perspective. The fourth part is on selected methodology, stemming from the research objectives. In the study, the following objectives are set—review of the relevant literature related to investments of life insurers and more specifically investments which cover technical reserves, investment policy, and type of investments. Along with this investments in major assets that cover technical reserves of life insurers in Bulgaria (shares, bonds, deposits, etc) are reviewed from the accounting approach perspective, their characteristics, and applicable accounting standards perspective. Research objective is to compare and outline differences and changes in investment policy of Bulgarian life insurers before and after implementation of Solvency II, as well as investment trends for Bulgarian life insurance companies compared to EU ones. The fifth part is on findings and results, and the last part is conclusion. The paper is solely related to Bulgarian life insurance sector, its investment policy and type of investments, applicable regulatory framework, accounting approach, and accounting standards.

2 Investments and Investment Policy of the Bulgarian Life Insurers: Legal Framework and Type of Assets

Investments of the insurance companies are crucial business activity because consider management of technical and non-technical reserves of insurance companies. The regulation of the investment activity of the insurers in Bulgaria is based on the Insurance Code 2019, which governs the investment risk management system, competences, functional relationships, and risk management responsibilities, in accordance with the applicable regulatory requirements, including Council Directive 2009/138/EC (2009) or Solvency II Directive and Commission Delegated Regulation (EU) 2015/35 (2015) (hereinafter referred to as Directive 2009/138/EC and Regulation (EU) 2015/35).

The Solvency II Directive introduces a major change in the way insurance companies operate. It should be clear that directive and regulation require greater focus on the investments (assets) part of insurers' portfolios, as well as the risks they

entail. Key principles in Solvency II are the introduction of risk-based capital requirements and the mark-to-market approach for balance sheet items. Also in this context, Solvency II is a completely new risk-oriented approach for measurement and evaluation of the financial position and strength of the EU insurance companies (Chobanova 2015). It is considered that the practical application of Solvency II will impose significantly higher capital to insurance companies. These requirements are expected to prevent the entities from the effective allocation of their own funds.

2.1 Solvency II and Local Legal Framework for Investments of Life Insurers

All investments held by insurers should be managed in accordance with the “prudence principle.” The insurer should have at its disposal an adequate structure of liquid assets (investments/resources) at all times in its activity against commitments under insurance contracts. European directives require a direct link between insurance liabilities and assets. In summary, “prudent investor” principle is required from each insurer in its investing decision, i.e., to invest the allocated insurance reserves (technical reserves) and own funds from the position of the prudent investor.

Conservative regulation predetermines the insurer’s investment policy by obliging it to cover the gross amount of technical provisions and the reserve fund so that the relative share of investments by type of insurance and its insurance portfolio structure ensures security, profitability, and appropriate liquidity for the specific insurance. In addition, the assets in which the insurer invests its technical reserves, and as such an investment they serve to cover them, should be diversified and allocated so that “no category of assets, investment market, or individual investment has a significant share.”

Bulgarian Life Insurance Code strictly defines which assets are allowed to cover the technical reserves of life insurance companies, along with specific limits per asset class. These assets, apart from its broad legal definition and restrictions, basically include as follows: government bonds; other type of bonds—corporate, municipal; shares or equities, units of collective schemes, property; cash; deposits; receivables; other assets. For every asset class, there is strictly specified limit.

3 Characteristics of the Investments of Life Insurers from the Accounting Perspective

The economics of insurance transactions is completely different from other enterprises. A major problem in insurance contracts accounting is to appropriately determine a way of reflecting the risk of insurance activities in published financial

statements. In this respect, as outlined by Klumpes and Morgan (2008) accounting standard setters should ensure that these treatments are broadly consistent with both their conceptual frameworks and similar non-insurance transactions that are entered into by these same enterprises.

Bulgaria as a European Union (EU) member state applies the International Financial Reporting Standards (IFRS) as the basis for presenting their consolidated financial statements for fiscal years beginning on or after January 1, 2005. In terms of insurance and insurance contracts, the International Accounting Standard Board (IASB) established a two-phase project. In 2004, the IASB issued IFRS 4 Insurance contract as the result of phase I of the project on insurance contracts. For Meyer (2005), the aim of the standard is to achieve high comparability and assist the decision-making process on capital markets. On May 18, 2017, the IASB published IFRS 17 Insurance Contracts. Apart from the predecessor standard—IFRS 4 Insurance Contracts, which set out a limited number of high-level guidelines and disclosure requirements for the accounting of insurance contracts, IFRS 17 introduces a significant change to insurers' and reinsurers' accounting and consequently their financial statements. IFRS 17 is expected to provide greater consistency.

The structure of the insurers' investments includes mainly shares, bonds and to a lesser extent investment property, investments in subsidiaries, associates, and joint ventures and deposits. The issues of insurer investments are not dealt directly in IFRS 4 Insurance Contracts, which automatically defines IAS 40 Investment Property, IAS 28 Investments in Associates and Joint Ventures, IFRS 11 Joint Ventures, IFRS 10 Consolidated Financial Statements (for control), IAS 32 Financial Instruments: Presentation, IAS 39 Financial Instruments: Recognition and Measurement (respectively IFRS 9 Financial Instruments as of 2022, as IFRS 17 Insurance Contracts Allows Its Later Application), IFRS 7 Financial Instruments: Disclosures and IFRS 13 Fair Value Measurements, as determining in respect of accounting of the investments of the insurers. IFRS 17 Insurance Contracts—together with IFRS 9 Financial instruments—are anticipated to bring further consistency and transparency to European insurers (EIOPA 2018).

3.1 Characteristics and Accounting of the Investment Property of Life Insurers

The reporting of investment property by insurers is carried out in accordance with the provisions of IAS 40 Investment Property. By their nature, purpose, and affiliation to the investment policy of the insurers, the investment property is a long-term investment in land and/or building or parts thereof (or both), which are held rather for long-term rental income and/or to increase the equity of the insurer, or both, than to be used in the principal business of the insurer or for administrative purposes. One of the major differences between an investment property and property for own

purposes is the ability of the investment property to generate cash flows relatively independently of other assets.

Paragraph 8 of IAS 40 Investment Property lists the following as examples of investment property: Land owned for the purpose of raising capital over the long term, and not for the purpose of short-selling in the ordinary course of business; land held for indefinite future use (if the entity has not determined that it will use the land either as owner-occupied property or for short-term sale in the ordinary course of business, the land is considered to be held for capital appreciation.); a building owned by the entity (or a usable asset related to a building held by the entity) and leased under one or more operating leases; a building that is not used but owned to be leased out under one or more operating leases; property under construction or construction for future use as an investment property.

In order to recognize an investment property in the balance sheet of an insurer as an asset, the following two conditions must be fulfilled cumulatively: it is probable that the reporting entity will receive future economic benefits from the investment property, and the cost of acquiring this investment property can be fairly estimated.

3.2 Characteristics and Accounting of Investments in Subsidiary, Joint, and Associated Undertakings and Other Undertakings in which the Life Insurer has a Stake

Upon initial recognition, an investment by the insurers in shares/units of an entity is classified according to the relevant class—an investment in a subsidiary, associate, joint venture, or financial asset. The requirements of the relevant accounting standard should apply—IFRS 10 Consolidated Financial Statements (for control), IAS 28 Investments in Associates and Joint Ventures (for Significant Impact), IFRS 11 Joint Ventures (for Joint Venture), IFRS 12 Disclosure of Interests in Other Entities. If an investment does not provide control, significant influence, or joint control, it is treated as a financial asset in accordance with IAS 39 Financial Instruments: Recognition and Measurement (IFRS 9 Financial Instruments, respectively).

Depending on the size of the investment, the insurer acquires a holding in which it obtains control, significant influence, or joint control over the entity in which it invests. This is one of the most important characteristics of investments. The influence of which or involvement is also determined by the relationships between the two entities.

Disclosure of information about interests in subsidiaries, associates, and joint ventures is carried out in accordance with the requirements of IFRS 12 Disclosures of Interests in Other Entities. The purpose of the standard is to provide greater transparency, comprehensibility, and the ability to make informed decisions by users of summarized financial information regarding: the interests of insurers in other

enterprises, the nature of those interests, the risk profile, and parameters of the return on each participating interest, as well as their impact on the financial position, results achieved, and changes in the cash flows of the insurers.

3.3 Characteristics and Accounting of the Financial Assets of the Life Insurers

Investments in financial assets are comprised of two large groups: investments in securities (stocks and bonds) and investments in deposits. Investments in shares/units that do not provide control, joint control, or significant influence of the investor, generally with a holding of less than 20% of the voting rights, are accounted for in accordance with IAS 39 Financial Instruments (respectively the new IFRS 9 Financial Instruments). IAS 32 Financial Instruments: Presentation clarifies the nature of financial assets. In their composition, financial assets include initial instruments—equity securities (stocks), debt securities (bonds), receivables, and derivatives and complex instruments allowing insurers to manage and reduce their economic and financial risks associated with his activity.

The insurer is entitled to invest in various securities subject to certain conditions. There are two major types of securities—stocks and bonds. These securities may be traded on the stock exchange or may not be traded on an active market. Typically, the market price of these financial instruments depends on their liquidation value and the income they incur (the amount of stock dividends, interest, and/or discount on bond denomination).

IAS 39 Financial Instruments: Recognition and Measurement overlaps on the following two characteristics: identifying the category to which an asset is assigned and determining its initial valuation. According to the standard, financial assets are classified in four categories: financial assets at a fair value through profit or loss, held-to-maturity investments, available-for-sale financial assets, and loans and receivables.

3.4 Characteristics and Accounting of the Investments in Deposits

Insurers accumulate enormous liquidity, where its management requires diversification. This diversification involves three major financial assets: cash invested in deposits, cash invested in equity securities, and cash invested in debt securities. Bank deposits are presented in the statement of financial position of the insurers at cost, including accrued interest.

With respect to deposits, whether denominated in BGN or in foreign currency, yields originate mainly from interest rates, and if they are denominated in foreign

currency, yields may flow from exchange rates. Foreign currency deposits in accordance with IAS 21 Exchange Rate Effects are monetary items and as such, any change in the exchange rate of the currency in which the deposit is denominated against the functional currency (or presentation currency) is recognized for the period to which it relates.

4 Research Method

In first part of the study, literature related to life insurance business models, investments of life insurance companies, EU initiatives Solvency II, legal framework and the Bulgarian perspective, investment policy, financial instruments, and type of investments, along with the accounting approach and accounting standards are examined.

There is a limited number of articles and research papers on the Bulgarian life insurance market, investments of Bulgarian life insurance companies, investment policy, type of investments, and accounting standards prepared by Bulgarian researchers. Hence, this paper tries to shed light in respect of investment policy of life insurance companies from an accounting perspective.

Data for life insurance companies' investments are obtained from publicly available sources (website of the respective company, Bulgarian National Bank - BNB and Financial Supervision Commission—FSC) and financial publications by FSC and BNB. Data concern 5 (five)-year period—2014 to 2018.

5 Results and Findings

Findings show that there are specific and new trends for Bulgarian life insurance companies, in terms of their investment portfolios, and the list of involved financial instruments over recent years. Investments of life insurance companies are changing and there is rebalancing in asset allocation, with other financial investments having highest share—62% of Total assets and 83% out of Total investments as of 31/12/2018. Due to strict regulatory investment limits, low yield environment, change of business model, and conservative risk management approach, debt securities and other fixed-income securities at the end of 2018 are 52% of Total Assets vs. 58% 3 years ago and 70% of Total Investments, respectively, vs. 58% 3 years ago. On the contrary, bank deposits have experienced significant decrease throughout the last 3 years—from EUR 50 mln. as of 31/12/2015 to EUR 11.7 mln. as of 31/12/2018 (from 7% of Total Assets to 1% and from 8% to 2% of Total Investments, respectively). In Tables 2 and 3, Total Investments of Bulgarian Life Insurance Companies 2014-2018Y and Structure of Total Investments of Bulgarian Life Insurance Companies 2014–2018Y are presented, respectively. Data is extracted from official statistic forms published by Financial Supervision Commission (FSC 2014, 2015,

Table 2 Total Investments of Bulgarian Life Insurance Companies 2014-2018Y

Amount (in 000 EUR)	31.12.2014	31.12.2015	31.12.2016	31.12.2017	31.12.2018
1. Total Investments	575,220	611,205	679,564	643,975	639,403
2. Investment property	18,440	19,163	17,460	18,926	17,742
3. Investments in subs., joint, and assoc. undertakings and other undertakings in which the insurer has a stake	54,165	54,213	62,038	84,390	84,390
4. Shares and other variable-income securities and stakes in investment funds	55,736	62,408	59,450	68,087	72,351
5. Debt securities and other fixed-income securities,	340,194	356,658	418,661	457,512	445,959
5.1. including securities issued and guaranteed by the government	252,736	274,928	358,088	387,428	372,579
6. Bank deposits	54,511	49,626	45,460	31,274	11,658
7. Other loans	51,576	67,830	75,790	2317	2483

Source: Financial Supervision Commission [2014](#), [2015](#), [2016](#), [2017](#), [2018](#)

Table 3 Structure of Total Investments of Bulgarian Life Insurance Companies 2014-2018Y in %

	31.12.2014	31.12.2015	31.12.2016	31.12.2017	31.12.2018
1. Investment property	3%	3%	3%	3%	3%
2. Investments in subs., joint and assoc. undertakings and other undertakings in which the insurer has a stake	9%	9%	9%	13%	14%
3. Shares and other variable-income securities and stakes in investment funds	10%	10%	9%	11%	11%
4. Debt securities and other fixed-income securities,	59%	59%	62%	71%	70%
4.1. including securities issued and guaranteed by the government	44%	45%	53%	60%	58%
5. Bank deposits	9%	8%	6%	5%	2%
6. Other loans	9%	11%	11%	0%	0%

Source: Financial Supervision Commission [2014](#), [2015](#), [2016](#), [2017](#), [2018](#)

Table 4 Investment of Bulgarian Life Insurers under Solvency I (2015) and Solvency II (2016 and 2018) in %

	2015	2016	2018
Investment property	3%	3%	3%
Investment in subsidiaries	9%	9%	14%
Shares	10%	9%	11%
Bonds	59%	62%	70%
Incl. Government bonds	45%	53%	58%
Bank deposits	8%	6%	2%
Other loans	11%	11%	0%

Source: Financial Supervision Commission 2015, 2016, 2018

2016, 2017, 2018) in order figures to be analyzed and respective developments outlined.

In order to compare the portfolio structure of Bulgarian life insurance sector, the author reviews also the structure before and after implementation of the new regulation Solvency II in 2016. In Table 4, Investment of Bulgarian Life Insurers under Solvency I (2015) and Solvency II (2016 and 2018) in %, concerns 3 years period- 2015, 2016, and 2018. The main reason for this comparison is to outline the changes of investments of Bulgarian life insurers before and after implementation of Solvency II (FSC 2015, 2016, 2018), reviewing data for investments from accounting perspective. Major changes are in the increased share of bonds, incl. Government bonds, and the plunge of the share of bank deposits.

EIOPA published an *Investment Behaviour Report* (EIOPA 2017) (for 2018, no new report was published), which analyses the investment behaviour of European insurers over the past 5 years (supervisory data from 87 large insurance groups and four solo undertakings across 16 EU Member States). The report identifies several trends in European insurance sector as the major ones are as follows: a trend toward lower credit rating quality fixed-income bonds; a trend toward more illiquid investments, including non-listed equity and loans and a decrease in property investments; average maturity of the bond portfolio is extended; the weight of new asset classes is increased—infrastructure, mortgages, loans, real estate; a small decrease in the debt portfolio and a small increase in “other investments” between 2015 and 2016; and the volume of non-unit linked and non-index linked assets has significantly increased in the last years.

Traditionally, in EU the largest part of total investments of insurance companies is in fixed-income securities. The bond portfolio comprises of government and corporate bonds, collateralized securities, and structured notes where government and corporate bonds are approximately 95% of the total size of the portfolio. Total bonds as a % to Total Investments are 83.5% in 2016 vs. 84% in 2015. The share of equity investments as a percentage of total investments is 8.9% in 2016 with same percentage—8.9% in 2015. For the period 2011–2016, this share stays almost the same.

As one of the objectives of the research is to investigate whether asset allocation trends in Bulgaria are similar to the ones in Europe and having outlined the trends summarized by EIOPA, the following is valid for Bulgarian life insurance sector: no

increase in lower credit rating quality fixed-income bonds; a slight trend toward more illiquid investments such as non-listed equity and loans and a decrease in property investments; an extension of the average maturity of the bond portfolio; no increase of the weight of new asset classes—infrastructure, mortgages, loans, real estate; a significant increase in the bond portfolio and an increase in government bond portfolio between 2015 and 2016, 2018; and the volume of non-unit linked and non-index linked assets has significantly increased in the last years. In summary, Bulgarian life insurance sector, being part of EU insurance sector and complying with the same regulatory EU requirements, has some investment specifics and not all investment trends relevant for the other major EU countries are valid in Bulgaria as at the date of this research.

6 Conclusion

The life insurance sector is a crucial component of the financial system in Bulgaria. This stems from the amount of premiums collected, the scale of investment, as well as the essential social and economic role it plays in covering individual and business risks. The Bulgarian life insurance business comprises of life insurance companies, which are registered as joint stock companies and are regulated by the Financial Supervision Commission (FSC). At the end of 2018, Total Assets of Bulgarian life insurance companies are EUR 844 mln. From this figure, total investments of life insurance companies are EUR 639.4 mln. (75% of total assets of life insurers), slight decrease compared to December 31, 2017—EUR 644 mln. and 79% of total assets.

Findings from the research show that there have been specific and new trends for Bulgarian life insurance companies, in terms of their investment portfolios, list of involved financial instruments throughout the last years. General conclusion is that investments of life insurance companies are changing and rebalancing in asset allocation took place, with other financial investments having highest share—62% of total assets and 83% out of total investments as of 31/12/2018. Due to strict regulatory investment limits, low yield environment, change of business model, and conservative risk management approach, debt securities and other fixed-income securities at the end of 2018 are 70% of total investments vs. 58% 3 years ago. The economics of life insurance transactions is completely different from other enterprises. A major problem for life insurance accounting is to determine an appropriate way of reflecting the riskiness of insurance activities in published financial statements.

This paper reviews applicable accounting standards for investments of life insurers, as issued by IASB—IFRS 4 Insurance Contracts, which automatically defines IAS 40 Investment Property, IAS 28 Investments in Associates and Joint Ventures, IFRS 11 Joint Ventures, IFRS 10 Consolidated Financial Statements (for control), IAS 32 Financial Instruments: Presentation, IAS 39 Financial Instruments: Recognition and Measurement (respectively IFRS 9 Financial Instruments as of 2022, as IFRS 17 Insurance Contracts Allows Its Later Application), IFRS

7 Financial Instruments: Disclosures and IFRS 13 Fair Value Measurements. However, Solvency II is targeted at assessing insurer solvency and so focuses on a firm's balance sheet, where International Financial Reporting Standards (IFRS) is also interested in reported profits.

Further research is needed to evaluate new standards IFRS 9 and IFRS 17 and their implications on Bulgarian life insurance sector and positive effects in bringing further consistency and transparency.

References

- Borio, C., Furfine, C., & Lowe, P. (2001). Procyclicality of the financial system and financial stability: issues and policy options. *BIS papers*, 1(3), 1–57.
- Chobanova, V. (2015). Bulgarian General Insurance Companies from Solvency II Perspective. *Economic Alternatives*, 2, 117–125.
- Commission Delegated Regulation (EU). (2015). *2015/35 of 10 October 2014 supplementing Directive 2009/138/EC of the European Parliament and of the Council on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) Text with EEA relevance*. Official Journal L12, pp. 1–797. Accessed Sep 17, 2019, from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0138&rid=1>
- Claessens, S. and Kose, M.M.A. (2013). *Financial crises explanations, types, and implications* (No. 13–28). International Monetary Fund.
- Directive 2009/138/EC. (2009). *Directive 2009/138/EC of the European Parliament and of the Council of 25 November 2009 on the taking-up and pursuit of the business of Insurance and Reinsurance (Solvency II) (Text with EEA relevance)*, 2009. Official Journal L335, pp. 1–155. Accessed Sep 17, 2019, from <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0138&rid=1>
- EIOPA. (2018). *EIOPA's analysis of IFRS 17 Insurance Contracts*. Accessed Aug 20, 2019, from https://www.eiopa.europa.eu/content/eiopa-analyses-benefits-ifs-17-insurance-contracts_en?source=search
- EIOPA. (2017). *Investment behaviour report, 2017*. Accessed Aug 20, 2019, from https://www.eiopa.europa.eu/content/investment-behaviour-report_en?source=search
- Financial Supervision Commission. (2014). Accessed July 26, 2019, from <https://www.fsc.bg/en/markets/insurance-market/statistics/life-insurance/2014/>
- Financial Supervision Commission. (2015). Accessed July 26, 2019, from <https://www.fsc.bg/en/markets/insurance-market/statistics/life-insurance/2015/>
- Financial Supervision Commission. (2016). Accessed July 26, 2019, from <https://www.fsc.bg/en/markets/insurance-market/statistics/life-insurance/2016/>
- Financial Supervision Commission. (2017). Accessed July 26, 2019, from <https://www.fsc.bg/en/markets/insurance-market/statistics/life-insurance/2017/>
- Financial Supervision Commission. (2018). Accessed July 26, 2019, from <https://www.fsc.bg/en/markets/insurance-market/statistics/life-insurance/2018/>
- Houben, A., & van Voorden, H. (2014). Insuring the Financial System against Insurers: A Macroprudential Framework. In *Macroprudential Supervision in Insurance* (pp. 66–84). London: Palgrave Macmillan.
- Insurance Code. (2019). Accessed Sep 16, 2019, from <https://www.fsc.bg/en/legal-framework/codes/>
- Joint FSF-CGFS Working Group. (2009). *The Role of Valuation and Leverage in Procyclicality*. CGFS papers, no. 34. Accessed Aug 16, 2019, from https://www.fsb.org/wp-content/uploads/r_0904h.pdf?page_moved=1

- Klumpes, P. & Morgan, K. (2008). Solvency II versus IFRS: Cost of Capital Implications for Insurance Firms. In *Proceedings of the 2008 ASTIN Colloquium*.
- National Statistical Institute. (2019). Accessed Aug 10, 2019, from <https://www.nsi.bg/en/content/5437/gross-domestic-product-gdp>
- Meyer, L. (2005). Insurance and International Financial Reporting Standards. *The Geneva Papers on Risk and Insurance*, 30, 114–120.
- Papaioannou, M. M. G., Park, M. J., Pihlman, J., & Van der Hoorn, H. (2013). *Procyclical behavior of institutional investors during the recent financial crisis: Causes, impacts, and challenges* (No. 13-193). In *International Monetary Fund*.