

# Bulgarian Pension Funds' Assets Review

FINAL REPORT

February 2017

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# 1. Introduction and Background

## 1.1 Background for the PFAR

On 26 February 2015, the European Commission (EC) published its Country Report for Bulgaria. The analysis of EC gave grounds to conclude that there are macroeconomic imbalances in Bulgaria. A part of country specific recommendation required performing a portfolio screening for the pension funds sector.

With a view to guarantee efficient functioning for the financial system and the need to ensure better transparency of transactions on the local financial market and in accordance with the National Reform Program - 2015 update to reach the objectives of Europe 2020 strategy adopted with the Council of Ministers decision No. 298 of May 2015 and on the grounds of § 10 of the Transitional and Final Provisions of the Law on Recovery and Resolution of Credit Institutions and Investment Firms (LRRCIIF), the Financial Supervision Commission (FSC) organized a review of the pension funds' assets ("PFAR") with the participation of independent external parties (e.g. "independent external reviewers"/IER) and institutions of high professional reputation.

The review was overseen by a Steering Committee (SC) that included representatives from the FSC, (member of the SCI) the Bulgarian Ministry of Finance (Observer), the Bulgarian National Bank (Observer) the European Commission (Observer) and the European Insurance and Occupational Pensions Authority (EIOPA; member of the SC). The FSC had selected a consultant, hereinafter referred as Project Manager (PMO) to provide support in organizing and coordinating the PFAR, as well as support in the quality assurance process. This support included drafting the PFAR methodology further approved by the SC, and ensuring a harmonized application of the review's methodology by the IER performing the reviews as well as a similar treatment of the participating pension funds by the respective IER.

The review covered the universal, professional and voluntary pension funds in Bulgaria. The voluntary pension funds with occupational schemes did not participate in the review.

The review of the assets of the pension funds was carried out by 3 independent external reviewers ("IER"), which were selected according to the criteria included in the terms of reference for the PFAR, as follows: KPMG Audit SRL, PricewaterhouseCoopers Audit OOD, HLB Bulgaria OOD. One IER was initially selected and subsequently rejected from the exercise due to irregularities found (RSM Bulgaria OOD).

A number of 27 PFs including universal, professional and voluntary pension funds participated in the exercise (please find the list in Appendix I).

The implementation of the review included the following steps:

- ▶ In January 2016 the Terms of Reference for the review was approved by the SC and the FSC.
- ▶ As a result of the public procurement, conducted in 2015, a contract was concluded with the PMO for preparing the methodology for the review and for carrying out the project management.
- ▶ On 15 February 2016 the Follow-up actions to be taken by FSC towards strengthening the supervision and legislation of the pension funds, following the results of the review of the assets of the pension funds, were published on FSC's website, as agreed in the SC.
- ▶ In March 2016 an invitation was published for the IER and in May 2016 the list of the eligible IER was approved.
- ▶ Also, in May 2016 the methodology for the review was approved and published on the website of the FSC.
- ▶ In June 2016 the IER for the respective PFs were appointed by the FSC.
- ▶ Following these organizational and preparatory steps the review of the assets of the pension funds commenced on 15 July 2016.
- ▶ In September 2016 (after the exclusion of RSM Bulgaria OOD from the list of the eligible IER) new IER were appointed for the PICs which had concluded contracts with this IER, which lead to prolongation of the implementation of the review.
- ▶ The review was finalized in January 2017 with the presentation of the IER's final reports and the preparation of this report summarizing the key findings of the review.

## 1.2 Purpose and scope of the PFAR

The main objectives of the review of the assets of the PFs were:

- ▶ To verify whether the assets of the PFs kept by the custodian banks exist;
- ▶ To perform a valuation of the assets in the PFs' portfolios in accordance with the provisions of Ordinance 9 of the FSC of 19.11.2003;
- ▶ To assess the appropriateness of the recognition and valuation principles of the assets in the pension funds' portfolios in accordance with the provisions of the applicable legal framework with a special focus on the impact of operations and transactions with natural or legal persons with close links to the funds and the companies managing the funds checking whether there are investments of the PFs in securities, issued by parties related to the PIC managing the fund within the meaning of par.1, sub section 2, item 3 of the Supplementary provisions of the Social Insurance Code;
- ▶ To review the risks of the pension funds in accordance with the provisions of the applicable legal framework and further identifying main risks not captured or not fully captured by the legal framework;
- ▶ To provide insight and raise awareness of the pension funds' sector risks and vulnerabilities including potential contagions to the rest of the financial sector and the real economy.

## 1.3 Context of this report and limitations

The PMO drafted this report, summarizing key findings identified by the IER and recommendations made by the IER as presented in their reports (hereafter called “the PMO report”). The PMO report was subsequently endorsed by the SC and approved by FSC. It was the responsibility of the IER to ensure that all procedures prescribed by the methodology have been carried out and the assumptions and the techniques used in the valuation of assets are adequate and accurate. In order to ensure timely execution of the project with high quality, the PMO in coordination with the SC carried out quality assurance to ensure oversight of the PFAR exercise, accurate and consistent application of the PFAR methodology. More information on Quality Assurance is presented in section 4 of this report.

As described in section 3 of this report, the IER carried out procedures of an audit nature which as a minimum were those described in the methodology, but also they were asked to exercise judgment, where necessary in order to report on factual findings and their overall conclusions. The findings refer to the financial information of PFs’ assets as well as to non-financial information relating to applicable regulatory framework and of the risks of the sector. Because the above procedures did not constitute either an audit or a review made in accordance with International Standards on Auditing or International Standards on Review Engagements or International Standards on Assurance Engagements (or relevant national standards or practices), the IER did not express any assurance on the financial statements of the PFs as of 30 June 2016. Had they performed additional procedures or had they performed an audit or a review of the financial or non-financial information in accordance with International Standards on Auditing or International Standards on Review Engagements, other matters might have come to their attention.

This PMO report includes the following:

- ▶ Background including overall objectives of the PFAR exercise
- ▶ Methodological Overview
- ▶ Summary of the Quality Assurance procedures performed by the PMO
- ▶ Description of the procedures performed by the IER, and summary of the IER’s findings and recommendations, as well as proposed adjustments on valuation of assets
- ▶ Summary of the procedures performed by the IER and their findings on investments in related parties
- ▶ Summary of the IER’s procedures and findings on risk assessment
- ▶ Consistency procedures performed by PMO

In this report the PMO have summarized the comments of the IER which the PMO considered more important and more relevant for the PF industry’s total assets valuation. In section 11-Appendix III of this report, the PMO presents in more detail the findings and recommendations for each PF and a summary of the adjustments reported by the IER.

The PMO report is intended for the information and use of the FSC and SC in connection with their specific requirements related to the PFAR and is not intended for any other purpose and should not

be distributed to other parties without our prior consent. Such consent, if given, may be on conditions including, without limitation, an indemnity against any claims by third parties arising from release of any part of this report. To the fullest extent permitted by law, PMO does not assume responsibility to anyone other than the FSC for this report.

This report has been prepared both in Bulgarian and English.

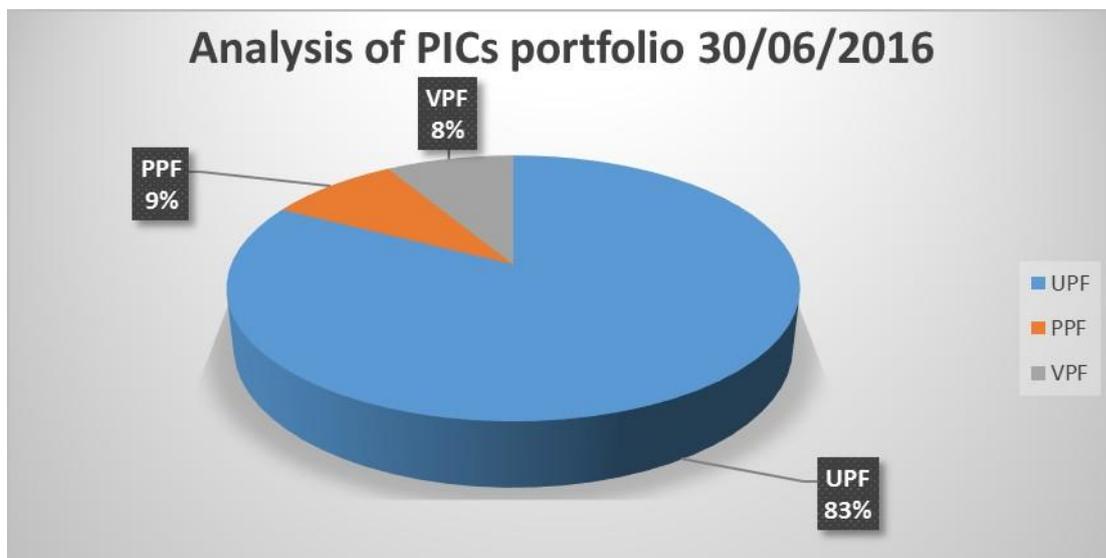
In accordance with the terms of reference, the PMO additionally prepared a summary report which can be used by FSC or/and SC in communications with the market.

## 1.4 Background for the Pension Funds market in Bulgaria

The social insurance market in Bulgaria encompasses 27 PFs managed by 9 pension insurance companies (PICs), which were subject to this PFAR.

Comparatively, Doverie and Allianz Bulgaria are the larger PICs, while NN, DSK-Rodina, Saglasie and CCB-Sila are medium-sized, and Badeshte/Future, Toplina and Pension Insurance Institute (POI) are the smaller PICs.

The majority of the PICs' portfolio (taking into account the PFs under review) has been invested in UPF and less in PPF and VPF, as can be seen from the below share of total assets as of 30 June 2016:



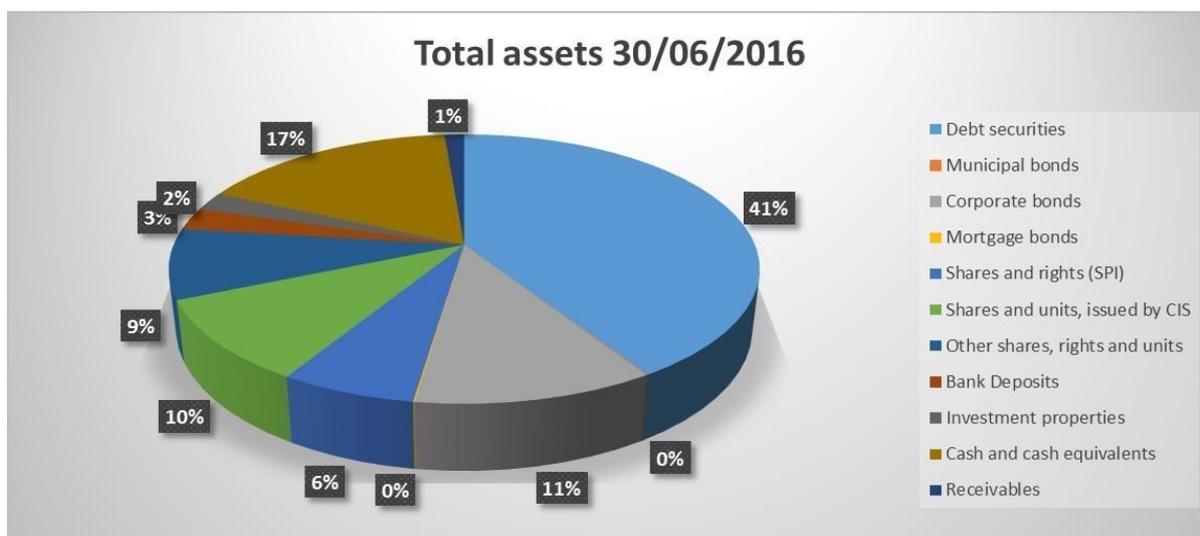
An analysis of total assets by PF managed by each PIC is presented in the table below:

(in '000 BGN)

PIC	UPF	PPF	VPF	Total assets 30/06/2016	Total assets 31/12/2015
Doverie	2.266.708	216.091	132.254	2.615.053	2.492.751
Saglasie	936.548	153.816	67.592	1.157.956	1.130.733
DSK-Rodina	1.159.743	112.730	68.338	1.340.811	1.241.264
Allianz Bulgaria	1.741.668	153.476	382.606	2.277.750	2.177.555
NN	847.152	62.368	109.986	1.019.506	974.794
CCB-Sila	814.321	99.528	70.353	984.203	944.845
Badeshte/Future	185.070	11.876	2.775	199.721	188.939
Toplina	91.739	41.780	10.272	143.791	136.490
Pension Insurance Institute	89.362	16.482	737	106.581	96.368
<b>Total</b>	<b>8.132.312</b>	<b>868.146</b>	<b>844.914</b>	<b>9.845.372</b>	<b>9.383.739</b>

Source R2 (pls see section 3.10) and FSC statistical data

The majority of the total assets in the pension fund sector have been invested in debt securities (41%), cash and equivalents (17%), corporate bonds (11%) and shares issued by Collective Investment Schemes (10%), as of 30 June 2016.



For more detailed information by PF, please refer to Appendix III of this report.

The analysis of total assets as of 30 June 2016, based on the categorization used for providing information to the FSC (same categorization was used by the IER to select their sample per R2-PFAR\_Materiality template) is as follows:

(in '000 BGN)

Categories of total assets	Doverie	Saglasie	DSK-Rodina	Allianz Bulgaria	NN	CCB-Sila	Badeshte/ Future	Toplina	Pension Insurance Institute	Total
1. Debt securities:	1,227.113	658.184	694.287	1.179.607	512.262	638.640	77.262	104.425	58.310	5.150.089
1.1. Debt securities, issued or guaranteed by EU MSs, EEA Countries and countries, specified in Ordinance 29 of the FSC, and their central banks, as well as by the ECB and the EIB	921.615	505.613	661.913	787.271	490.945	514.755	18.797	80.084	58.310	4.039.301
1.2. Municipal bonds	2.632	-	-	-	-	-	3.960	429	-	7.021
1.3. Corporate bonds	295.814	152.571	32.374	392.335	21.317	123.885	54.505	23.912	-	1.096.714
1.4. Mortgage bonds	7.052	-	-	-	-	-	-	-	-	7.052
2. Shares, rights and units:	727.742	361.392	278.073	405.888	289.858	242.188	68.348	29.725	24.854	2.428.068
2.1. Shares and rights with regard to shares of special purpose investment companies	324.012	30.389	207.587	3.202	18.211	28.925	8.112	30	2.069	622.537
2.2. Shares and units, issued by collective investment schemes	310.792	158.735	68.598	147.494	124.814	100.400	29.669	18.961	14.606	974.069
2.3. Shares, rights and units apart from the ones in 2.1. and 2.2.	92.938	172.269	1.888	255.192	146.833	112.863	30.567	10.734	8.179	831.463
Financial instruments	1.954.855	1.019.576	972.360	1.585.495	802.120	880.828	145.610	134.149	83.164	7.578.157
Bank Deposits	73.828	-	60.979	97.263	-	561	8.502	4.231	17.491	262.855
Investment properties	81.460	44.105	-	40.140	-	45.884	7.010	3.051	-	221.648
Other assets, including:	504.911	94.276	307.473	554.852	217.386	56.930	38.599	2.360	5.926	1.782.712
Cash and cash equivalents	465.901	49.378	304.481	548.288	215.963	37.527	27.274	2.228	5.587	1.656.627
Receivables	39.010	44.898	2.992	6.564	1.423	19.403	11.325	132	339	126.085
Total assets	2,615.053	1,157.956	1,340.811	2,277.750	1,019.506	984.203	199.721	143.791	106.581	9,845.372

Source: R2 submitted templates by IER (pls see section 3.10)

#### Notes:

1. The data in the above table is presented cumulatively for the PFs under review that are managed by each PIC
2. Comparing the data in the above table and pie-chart, which are based on data reported by IER, with the information reported to FSC by the PFs, certain inconsistencies are identified at sub-category level (due to reclassifications). Moreover, in respect of the PFs managed by PIC DSK – Rodina, IER have included derivatives in category shares, rights and units, whereas PFs have reported derivatives to FSC as other assets.

## 2. Executive Summary

### 2.1 Proposed adjustments under Ordinance 9

The results of the PFAR exercise, as proposed by the IER, had an effect of 0,3% reduction in the total assets of the Pension Fund sector, which amounted to BGN 9.845m as of 30 June 2016. The adjustments proposed by IER per PF ranged from 0% to 3,4% of their total assets. More information on the proposed adjustments are included in section 5 of this report.

### 2.2 Results of the PFAR exercise per topic

The PMO summarizes below the key conclusions / findings for each topic included in the methodology. These statements are based on the results of the procedures performed and communicated to the PMO by the IER:

#### Corporate Governance, processes and internal control framework, accounting policies

On a general basis, the IER concluded that the system of corporate governance in the PFs is appropriate and controls are in place and operate effectively. The IER identified that the accounting policies were general and in some cases quite brief and do not fully capture the policies followed by the PFs, especially for their IFRS financial statements. The IER recommended that the accounting policies be updated to include more detail particularly regarding the valuation of the assets. In some cases, the IER identified some deficiencies in the implementation and operation of the IT and entity level controls and recommended implementation of Code of Ethics and a change management policy and test recoverability back-ups.

#### Reliability, quality, sufficiency and relevance of data

The IER concluded that the data used for the PFAR exercise was reliable, sufficient and relevant.

#### Valuation (Ord.9) and Existence of financial instruments

The IER identified no issues with the existence of financial instruments.

The IER concluded that, although the valuations are in compliance with Ordinance 9, certain PICs applied less conservative risk premium in their DCF valuations for corporate bonds, as a result, the IER proposed adjustments for the corporate bonds. A reduction in the total assets of BGN 10.200k was proposed by the IER as a result.

The SC decided to enforce the results post PFAR considering the consistency checks made by the PMO and taking the adjustment with the most favourable impact among IER for the same equity or bond (please see more details in section 6).

## Valuation (ord.9) and Existence of investment properties

The IER identified no issues with the existence of investment properties.

The IER concluded in general that the PFs have appropriately valued the investment properties with certain exceptions. In general the IER used the market approach, while in certain cases, the PFs had used a combination of income and cost approach or did not use comparable properties for the valuation, which resulted in proposed adjustments by the IER. The reduction in the total assets of the Pension Fund sector as a result was BGN 22.740k.

## Valuation and Existence of other assets

The IER identified no issues with the existence and valuation of other assets.

## Investments in related parties

The IER concluded based on the procedures performed that there are no investments in related parties as of 30 June 2016 per the definition of SIC. The IER performed specific procedures, however, in certain cases the entities and persons associated were significant in number, thus there were limitations in identifying possible other related parties, other than the ones disclosed by the PFs, as identifying a related party requires a broader set of information to be analysed. Refer also to risk assessment section below.

## Risk Assessment

### Risk assessment - provisions of the current legal framework

No issues were reported by the IER regarding the monitoring by the PFs of compliance with the quantitative restrictions regarding investments categories, as provided by the SIC.

### Risks not captured or not fully captured by the current legal framework

#### Synchronization of assets and liabilities

The scope of the PFAR included only the total assets of the pension fund sector. As the pension liabilities, which are reported by the Pension Insurance Companies were not in scope, there is the risk that there is no synchronization of assets and liabilities, which is an additional potential risk of the sector.

#### Different valuation approaches between IFRS and Ordinance 9

The valuation of financial instruments under IFRS differs from that reported for Ordinance 9, for a number of PFs. As regards the valuation of financial instruments under IFRS, the IER proposed adjustments to bonds admitted and not admitted to trading, identical to those proposed for Ordinance 9 (mainly due to understatement of the risk premium used in DCF valuations). In addition, they proposed adjustments to shares and rights admitted to trading, due to different valuation approach used for IFRS compared to Ordinance 9. More information is presented in section 10.

#### Active market of investments

Certain inconsistencies were identified among IER in the classification of a security as being traded on an active vs inactive market, which resulted in inconsistencies in values reported under IFRS. Under IFRS there is guidance however, no hard rules to assess an "active market", which leaves room for interpretation and different judgment. Moreover, the investment environment in Bulgaria poses challenges to the assessment of fair value of investments, due to the following reasons: most

securities on Bulgarian Stock Exchange are thinly traded; several small transactions might be sufficient to maintain relatively high stock price on the stock exchange; transactions between related parties are not easily identifiable in order for their effect on the price to be considered; there are few active investors on the Bulgarian Stock Exchange, as well as on the government bonds market and trades are not frequent. At the same time there are challenges for the use of alternative valuation techniques, in identifying available relevant market information to be used.

#### Low yield environment

Yields in Bulgaria and generally in Europe remain at historical lows and risks concerning the low profitability of financial entities pose key concerns to the financial system. Financial institutions intend to reduce costs and adjust their business models which may bring threats to the sustainability of the business model.

#### Concentrations of risks

Overall, no significant concerns were reported concerning the potential exposure of the PFs to excessive credit risk, interest rate risk, liquidity risk, or foreign exchange risk. In the majority of PFs, the concentration is in investments in the Government sector (53% in total PF sector), in investments denominated in Euro and BGN (87% of the total PF sector), and in terms of geographical sector in Bulgaria (45% of the total PF sector) and Western Europe (28%).

#### Related Parties

Differences exist in the definitions of related parties between IAS 24 and the SIC (which prohibits investing the assets of the PFs in securities issued by parties related to the PIC) and it is recommended that the definition of related parties under SIC be expanded to include the related parties defined under IAS 24, in order to eliminate any discrepancies, and monitor under a single definition.

Moreover, it is recommended to some PICs to implement procedures for identification of close members of the family of all of the members of the Board of Directors, the PIC and the parent company of the PIC and subsequent identification of entities controlled or jointly controlled by those persons. Since that kind of information is not publicly available, the IER were not able to perform an independent examination for existence of investments in entities controlled or jointly controlled by such close family members.

Certain PICs have no formal procedure for maintaining a complete list of related parties, as well as for providing formal trail that newly created exposures or existing ones are not to related parties. Certain IER reported high concentration in certain groups of companies. In general, the IER suggest that the PIC conduct and document more in-depth research into the persons that actually exercise control over these issuers.

The IER were also asked to examine whether there could be differences in the related parties identified arising from the amendments in the definitions for related parties in the SIC that entered into force on 12 August 2016. The IER did not identify circumstances that indicate investments of the PFs in securities, issued by related parties to the respective PIC.

#### Minimum credit ratings

Certain IER identified that there were no restrictions relating to minimum credit ratings of the issuers of debt securities. The IER recommended the PFs should consider the enforcement of minimum credit ratings of financial instruments in which the PFs are allowed to invest in order to avoid the exposure to undue high risks.

## 3. Methodological overview and approach

### 3.1 Methodology

The methodological guidance for the PFAR, which was published by the FSC, describes the main assumptions and parameters (including reference date and applicable framework, planning materiality and sampling criteria), the key tools and deliverables and the detailed procedures to be applied by the IER to conclude on each area.

The methodology described the minimum procedures to be followed by the IER and the IER were requested to use their professional judgment to determine the extent and nature of any additional procedures or information considered appropriate taking into account the scope of work requested in this exercise and their assessment of the specific characteristics of the respective pension funds under review.

After the publication of the methodology and the appointment of IER, there was a joint meeting to clarify aspects of the methodology, the timeline and deliverables.

### 3.2 Reference Date

The reference date for the PFAR exercise was 30 June 2016. The IER were requested to consider any subsequent event relevant to the analysis performed, including application of supervisory measures or provision of recommendations by the FSC or any other relevant information as applicable. Subsequent events were included in the IER's reports together with an analysis of their impact over findings.

### 3.3 Applicable Framework

For the performance of the review of pension funds' assets, the relevant regulatory framework applied and in particular the Social Insurance Code, Ordinance No. 9 of the FSC, Ordinance No. 29 of the FSC, the Accounting Act, and Ordinance No. 36 of the Bulgarian National Bank on the custodian banks pursuant to the Social Insurance Code.

The IER were requested to consider the applicable legal framework and the applicable International Standards on Auditing ("ISA") for the performance of the review of the financial and non-financial information.

### 3.4 Corporate Governance, processes and internal control framework, accounting policies

This topic in the methodology included the review of the appropriateness of the system of governance including the internal control mechanisms in place commensurate to the risks and complexities of the

PFs, according to the legal framework. The PFs were expected to have in place an internal control framework commensurate to the risks arising from the activities and processes to be controlled. The IER also focused on whether the PFs had a robust set of clearly defined policies and processes for the correct interpretation of accounting rules as imposed by the relevant legal framework and best market practices in the pension fund sector. Significant processes for which understanding and testing of controls was performed by the IER, included at a minimum the selection of new investments, monitoring performance and risks of the investment portfolio, investments in securities issued by related parties with the PIC, monitoring restrictions on investments according to the regulatory framework, and valuation of pension funds' assets.

### 3.5 Reliability, quality, sufficiency and relevance of data

An objective of the PFAR was to ensure in general that the medium of keeping the information on prices and their sources used as a basis for measuring the assets (valuation), is appropriate and in line with the requirements of Ordinance 9. The IER documented the process for collecting and processing of data and checked completeness and accuracy of data used in the valuations.

### 3.6 Valuation and Existence of Assets

The methodology required IER to follow specific procedures per main category of the pension funds' assets in order to examine their existence and their valuation. The IER were asked to perform additional procedures to the extent necessary, based on their judgment. The main categories of the pension funds' total assets as of 30 June 2016 are financial instruments (mainly debt securities, corporate bonds and equity investments), bank deposits, investment properties and other assets.

As regards financial instruments, the IER were requested to select a sample, per category of financial instruments, covering at least 90% of the value of the category, and perform procedures to assess valuation performed by the PF. The IER were asked to analyse all types of financial instruments and understand and comment on the valuation approach followed by the PFs, per guidance of Ordinance 9. In each case, the IER were requested to provide comments as to whether the valuation approach was appropriate and in line with Ordinance 9, as well as whether a proper hierarchy was followed, in all cases explaining their rationale. In cases where a valuation technique was used by the PFs, the IER were requested to review (using licensed appraisers as considered appropriate), other than the methodology, also the inputs and comment on their reasonability, by making also reference to the IFRS guidance and fair value hierarchy. Where (further to the above procedures), deviations to the valuation method selected were identified, the IER were requested to quantify the effect, to the extent possible.

For investment properties, the IER were requested to examine whether, after initial acquisition, the investment properties were measured at fair value as required by article 10 of Ordinance 9. Based on a selected sample the IER reviewed supporting documents in respect of ownership and valuation. For the selected sample, the IER reviewed the valuation report obtained by the PF (from a qualified valuer), including the valuation methodology and assessment in respect to the market value considering the applicable framework. The IER were asked to use independent valuers with the necessary capacity under the Independent Valuers Act, either employees of the IER or subcontractors, to perform the assessment in order to evaluate the methodology and the assumptions used by the PF's valuer.

For both financial instruments and investment properties the IER were requested to perform specific procedures to ensure their existence.

In accordance with the methodology, the IER were asked to determine Planning Materiality (PM) as a percentage of total assets (1%), and use this to select asset classes to be reviewed by the IER and to evaluate the effect of identified misstatements. Per the methodology, the following were to be reviewed, irrespective of materiality: financial instruments, investment properties and balances with related parties. In addition, the reporting threshold was defined as 5% of PM, to be used for proposing adjustments identified by the IER. Any differences below this threshold was considered trivial, therefore not reported. The methodology also highlighted that the determination and use of materiality should not be only a mathematical exercise but would also require professional judgment in assessing risk and hence, excluded classes of assets may be included in the review where considered appropriate by the IER.

### 3.7 Review of investments in related parties

The scope of the PFAR included a review of the process the PICs have in place, for identification of investments in related parties to the PIC managing the pension fund, as well as of the nature of the relationship between the PFs and these related parties, and inspection of whether there are investments of the pension fund in securities issued by parties related to the PIC. Related parties are defined in accordance with par. 1, sub-section 2, item 3 of the Supplementary provision of the Social Insurance Code.

### 3.8 Risk assessment

One of the additional key objectives of the Pension Funds' Assets Review (PFAR) was the review of the risks of the pension funds in accordance with the provisions of the applicable legal framework and the identification of main risks not captured or not fully captured by the legal framework.

In this respect, the identification of investments in securities issued by parties related to PIC managing the PFs was very important. The IER were requested to examine whether there are investments of the pension fund in securities issued by parties that may not qualify as a related party to the pension insurance company under par. 1, sub-section 2, item 3 of the Supplementary provision of the Social Insurance Code but may qualify as a related party under IAS 24. The IER were also asked to check whether there could be differences in the related parties identified arising from the amendments in the definitions for related parties in the SIC that entered into force on 12 August 2016.

As an additional assessment of risk, the IER were asked to comment based on the procedures performed for the valuation of financial instruments, to what extent the policies selected for the valuation of the instruments are in line with the provisions of IFRS 13 in relation to fair value measurement. The IER were asked to comment on the differences identified between current policies for the valuation of financial instruments and IFRS, taking into account the IFRS 13 fair value hierarchy. For assets which according to the IER were not valued in accordance with IFRS, the IER was asked to perform an IFRS-compliant valuation and document the valuation technique used (including assumptions used and their justification) and the rationale behind selecting the specific technique.

In addition, the IER were required to perform procedures, for securities admitted to trading on Bulgarian market, to identify any deals made with related parties, and ensure that these deals are

disregarded in considerations for valuation method.

Another objective of the exercise was to ensure consistency, to the extent possible, of the valuation principles followed across the different participating companies, for same/similar instruments.

Therefore, the IER were requested to determine adjustments, as a result of an assessment of active/inactive markets, including in terms of frequency and volume of transactions.

### 3.9 Final Reports

The type of report provided by the IER was an Agreed-Upon-Procedures report in accordance with ISRS 4400.

The IER carried out procedures of an audit nature which as a minimum were those described in the methodology, but also were asked to exercise judgment, where necessary, in order to report on factual findings and their overall conclusions. The findings refer to the financial information of pension funds' assets as well as to non-financial information relating to applicable regulatory framework and of the risks of the sector.

The IER, considering the ISAs, were requested to prepare a documentation for the review and obtain sufficient and appropriate evidence to support the findings and to draw reasonable conclusions to base their report. A separate report was prepared by the IER for each PF, the main findings of which are summarized and presented in Appendix III of this report. The IER's reports include specific templates in which comments, conclusions, as well as judgment exercised over the different findings and the necessary quantitative assessments are incorporated.

Specifically, the following templates have been used by the IER in the PFAR:

R2: Materiality template (calculation of planning materiality, significant threshold and reporting threshold)

R4: Proposed adjustments template (adjustments for Ord. 9 purposes)

R5.1: Existence and Valuation template analysis of the investment portfolio per security (including sensitivity analysis of credit, exchange, interest and liquidity risks)

R5.2: Existence and valuation template analysis of the investment properties

## 4. Quality Assurance

The achievement of standardized quality requirements of the PFAR exercise required an integrated approach. Quality assurance and progress tracking were two complementary processes with a joint goal to ensure accurate and timely delivery of the PFAR results in a standardized manner across all the parties involved.

Particular attention was focused on the following quality issues during the PFAR:

### Monitoring and evaluation system

During the PFAR exercise, the PMO shared with the Steering Committee frequent updates on the overview and monitoring of the project progress against work plan.

The monitoring and evaluation system was a management tool ensuring in particular efficient management of activities. The monitoring and evaluation system contributed to:

- ▶ Monitoring the project management cycle so project goals are met; (e.g. progress reports submitted by IER to inform the SC and PMO about the status of their work, as a result the SC and PMO could support IER timely by providing feedback comments)
- ▶ Transparency and responsibility in implementing the project;
- ▶ Integration of the information collected as the project was implemented

The monitoring and evaluation system made it possible to improve performance of activities:

- ▶ Through increased awareness of the problems of stakeholders
- ▶ By identifying good practices

It ensured a rapid and tailor-made response with:

- ▶ Activity results and deliverables (e.g. the SC and the PMO provided clarifications to any questions that arose by the IER, using the Q&A tool);
- ▶ Solutions adapted to the needs of the different participants in the project (e.g. detailed guidance provided in related parties, in corporate bonds' valuations, active/inactive market).

The above was achieved through the following commitments:

- ▶ Presence of experienced staff to evaluate the quality of implementation;
- ▶ Providing a clear view of project execution by emphasizing both its strong points and its weak points.

## Definition of a quality assurance plan

The quality assurance plan focused on processes, by identifying the levels and stages relevant to project implementation. This made it possible to intervene in each process, if necessary, to guarantee its quality.

The quality assurance plan included the following stages, which were intended to ensure high quality both in the administrative implementation of the project (preparatory work, reports, information and communications) and in carrying out project activities (experts, working tools, etc.):

- ▶ Definition of the phases in activity implementation (standard timeline communicated to the IER from the starting date of the project setting the deadlines of the deliverables);
- ▶ Definition of norms and standards (specific guidance provided in IFRS 13 in methodology);
- ▶ Definition of indicators/sources of information (it was communicated to the IER to consider in their procedures publically available sources such as the Apis, bse-sofia site for prospectus);
- ▶ Discussion and integration of results for immediate and long-term corrective steps for meeting the preset deadlines in case of unforeseen circumstances, through:
  - § Timely identification of unforeseen events and circumstances (e.g. inconsistencies identified among the IER and discussed in SC meetings)
  - § Understanding and quantification of impact on specific cases and consideration of global impact, if any, on all PFs under review (e.g. quantification of the impact of the inconsistencies)
  - § Early communication with all stakeholders of the PFAR exercise to reach decisions on Ad-hoc basis.

## Communication and coordination

Regular conference calls were arranged between PMO and the IER and SC for timely resolution of issues. Key experts also participated to SC meetings, as considered necessary.

## Evaluation and reports

Each report was subject to quality control to check its content, language and form (consistency checks performed among all final reports and feedback comments provided to the IER how to proceed with open items by providing guidance, e.g. risk assessment, related parties).

The PMO and the SC ensured that there is consistency in the application of the methodology by all IER through:

- ▶ Reviewing the Blueprints and progress reports and providing timely feedback

- ▶ Reviewing the IER's progress and final reports and provide feedback
- ▶ Performing consistency checks
- ▶ Assessing significance of issues reported by the IER and the remedial actions proposed
- ▶ Delivering answers through the Q&A tool

The SC discussed the interim results during the monthly meetings and conference calls. In addition, several meetings and conference calls were organized between the SC, PMO and the IER with a view to address concerns, questions, limitations and proposed alternative approaches.

The IER were expected to design quality assurance and control procedures to ensure that the intended results are achieved to the satisfaction of the FSC and SC. The ultimate goal was a consistent application of the methodology to achieve to the greater extent a similar treatment of participating PFs by the respective IER. IER were asked to comply with the procedures and guidelines established in the methodology; in case of deviations, these issues were addressed and discussed by the PMO, with the involvement of the SC.

## 5. Existence and Valuation of total assets - results

The results of the PFAR, as outlined below, are summarized from the individual reports of the IER by the PMO, without however, performing an independent review of the work done by the IER:

(in '000 BGN)

Pension Fund	Total assets	Financial instruments adjustments	Investment properties adjustments	Total proposed adjustments	Total Assets after adjustments	% per total assets
Doverie Universal Pension Fund	2.266.708	-	(10.912)	(10.912)	2.255.796	-0,5%
Doverie Professional Pension Fund	216.091	-	(2.441)	(2.441)	213.650	-1,1%
Doverie Voluntary Pension Fund	132.254	-	(1.866)	(1.866)	130.389	-1,4%
Saglasie Universal Pension Fund	936.548	(2.349)	-	(2.349)	934.199	-0,3%
Saglasie Professional Pension Fund	153.816	(174)	-	(174)	153.642	-0,1%
Saglasie Voluntary Pension Fund	67.592	(42)	-	(42)	67.550	-0,1%
DSK - Rodina AD Universal Pension Fund	1.159.743	-	-	-	1.159.743	0,0%
DSK - Rodina AD Professional Pension Fund	112.730	-	-	-	112.730	0,0%
DSK - Rodina AD Voluntary Pension Fund	68.338	-	-	-	68.338	0,0%
Allianz Bulgaria Universal Pension Fund	1.741.668	-	-	-	1.741.668	0,0%
Allianz Bulgaria Professional Pension Fund	153.476	-	-	-	153.476	0,0%
Allianz Bulgaria Voluntary Pension Fund	382.606	-	(3.563)	(3.563)	379.043	-0,9%
NN Universal Pension Fund	847.152	-	-	-	847.152	0,0%
NN Professional Pension Fund	62.368	-	-	-	62.368	0,0%
NN Voluntary Pension Fund	109.986	(105)	-	(105)	109.881	-0,1%
CCB-Sila Universal Pension Fund	814.321	(994)	(2.698)	(3.691)	810.630	-0,5%
CCB-Sila Professional Pension Fund	99.528	(152)	(472)	(624)	98.904	-0,6%
CCB-Sila Voluntary Pension Fund	70.353	(153)	(790)	(943)	69.411	-1,3%
Badeshte Universal Pension Fund	185.070	(4.525)	-	(4.525)	180.545	-2,4%
Badeshte Professional Pension Fund	11.876	(148)	-	(148)	11.728	-1,2%
Badeshte Voluntary Pension Fund	2.775	(95)	-	(95)	2.680	-3,4%
Toplina Universal Pension Fund	91.739	(927)	-	(927)	90.812	-1,0%
Toplina Professional Pension Fund	41.780	(439)	-	(439)	41.341	-1,1%
Toplina Voluntary Pension Fund	10.272	(96)	-	(96)	10.176	-0,9%
Pension Insurance Institute Universal Pension Fund	89.362	-	-	-	89.362	0,0%
Pension Insurance Institute Professional Pension Fund	16.482	-	-	-	16.482	0,0%
Pension Insurance Institute Voluntary Pension Fund	737	-	-	-	737	0,0%
<b>Total</b>	<b>9.845.372</b>	<b>(10.200)</b>	<b>(22.740)</b>	<b>(32.940)</b>	<b>9.812.433</b>	<b>-0,3%</b>

Source R4 template

The total amount of IER's proposed adjustments amounts to BGN 32.940k, which relates by BGN 10.200k to adjustments on the valuation of financial instruments and by BGN 22.740k to adjustments on investment properties' valuation.

Below the PMO summarized the procedures performed by the IER, based on the methodology and the findings they reported.

### 5.1 Existence and Valuation of financial instruments

#### Existence of financial instruments

IER have requested the PFs to prepare and submit a confirmation letter to the custodian bank, in order to verify the existence and the ownership of the investment portfolio's units as at 30 June 2016. The custodian bank confirmation letter referred to the following as a minimum:

- ▶ number of investment units;
- ▶ ISIN;

- ▶ face value of investments;
- ▶ currency;
- ▶ accrued interest income.
- ▶ financial instruments that are subject to any encumbrances (such as charges or pledges);
- ▶ financial instruments held as collateral for the honouring of commitments or undertakings given to the custodian bank;
- ▶ financial instruments held by the custodian for safekeeping.

IER have obtained and in some cases performed themselves the reconciliation of the investments portfolio analysis per pension fund with the general ledger of pension funds (Trial Balance) as at 30 June 2016.

IER have reviewed the confirmation letter received from the custodian bank and reconciled it with the data maintained by the PF. In cases where the reconciliation was not available under the data received by the custodian bank, IER performed alternative procedures (e.g. they proceeded in recomputation).

IER have confirmed that the custodian bank runs and maintains accounting records and a register for all assets for each individual pension fund separately from its own assets and from the assets attracted by other clients. Most of the IER reported that they have obtained the above representations from the custodian bank directly via the confirmation letter received and the contract signed with the Custodian bank. IER have obtained from the custodian bank the statement of the acquisitions and sales transactions of securities performed in respect of the PF during period 1 January – 30 June 2016. Most of the IER specifically reported that they have reconciled it with the list of acquisitions and sales transactions of securities obtained from the PIC in respect of the PF, in order to verify whether the securities are monitored by the custodian bank in a separate ledger from the custodian bank's own assets and the assets attracted from other clients.

IER have selected a sample of purchases of financial instruments for the period 01/01-30/06/2016, received the relative trade tickets, security description and other documentation related to these purchases and reconciled the information of the purchases to the investments portfolio analysis and verified that the financial instruments are owned by the PF. In respect of their sampling approach certain IER have followed their methodology for testing controls, other IER have followed the non-statistical sampling methodology and some other have followed both statistical and non-statistical sampling methodology. The separation of assets into categories as well as the sampling methodology followed per category were based on their professional judgement.

IER have verified (e.g. via the terms of the contract signed with Custodian Bank or the confirmation letter received by the Custodian Bank) whether the manner in which the specialized depository institutions store and report client accounts and registers of financial instruments owned by the pension fund, as well as documents certifying the financial instruments complies with the acting regulatory framework.

IER have checked whether all assets of the pension fund are kept at the custodian bank on the basis of a contract for custodian services concluded between the PIC and the custodian bank. They have confirmed that the custodian confirmation letter includes an analysis of investment titles held by the custodian bank on pension fund's behalf, specifying in any case if the titles: (a) are subject to any encumbrances (such as charges or pledges), (b) held as collateral for the honoring of commitments or undertakings given to the custodian bank, (c) held by the custodian for safekeeping.

In certain cases, IER were informed by the custodian bank that all portfolio with financial instruments related to the PFs as 30 June 2016 are "financial instruments held by the custodian for safekeeping". IER has made recommendations on the above procedure. In other cases, IER has confirmed that the assets of the PFs are not pledged or they stated that either "No encumbrances, such as charges or pledges, nor held as collateral, or held by the custodian bank for safekeeping exist" or excluded the a) and b) assertions. In certain cases, IER had no additional comments.

IER have checked (e.g. via the website of the Bulgarian National Bank or FSC) whether the respective custodian bank is included in the list of the authorized custodian banks of PFs. They have also obtained a complete list of bank accounts (debit and credit balances) of the pension fund. They have obtained, at a minimum, confirmations of bank balances for all depository and disbursement accounts, and bank accounts closed during the period, to confirm the relationship with the bank including contingencies, liens, pledges, restrictions on the entity's assets and guaranteed amounts.

Finally, IER have performed Analytical Review Procedures in the investments portfolio as at 30 June 2016 in comparison to the balances of 31 December 2015 and many of them provided explanations on large items identified.

Overall, based on final reports, all IER have performed the procedures outlined in PFAR methodology and they have not reported discrepancies on the financial instruments' existence.

## Valuation of financial instruments (Ord. 9)

The PMO outlines below the procedures required by the methodology with respect to testing for valuation of financial instruments supplemented by additional information obtained from the IER's reports to procedures performed as well as findings as they were reported in the final reports of the IER.

### General approach

The IER obtained the breakdown analysis of investments as of 30 June 2016 (which is summarised in the table below) and have selected a sample (based on the selection criteria analyzed in section 1.5.4 of PFAR methodology) to cover at least 90% of each category of the financial instruments (based on categorisation in R2 and R4 templates-refer to section 3 for templates) and performed procedures to ensure appropriate valuation.

The below table is prepared based on the data received by the IER in the final reports analyzing the financial instruments by category (presented cumulatively for PFs under review managed by each PIC):

Categories of total assets	Doverie	Saglasie	DSK-Rodina	Allianz Bulgaria	NN	CCB-Sila	Badeshte/Future	Toplina	Pension Insurance Institute	Total
1. Debt securities:	1,227.113	658.184	694.287	1,179.607	512.262	638.640	77.262	104.425	58.310	5,150.089
1.1. Debt securities, issued or guaranteed by EU MSs, EEA Countries and countries, specified in Ordinance 29 of the FSC, and their central banks, as well as by the ECB and the EIB	921.615	505.613	661.913	787.271	490.945	514.755	18.797	80.084	58.310	4,039.301
1.2. Municipal bonds	2.632	-	-	-	-	-	3.960	429	-	7.021
1.3. Corporate bonds	295.814	152.571	32.374	392.335	21.317	123.885	54.505	23.912	-	1,096.714
1.4. Mortgage bonds	7.052	-	-	-	-	-	-	-	-	7.052
2. Shares, rights and units:	727.742	361.392	278.073	405.888	289.858	242.188	68.348	29.725	24.854	2,428.068
2.1. Shares and rights with regard to shares of special purpose investment companies	324.012	30.389	207.587	3.202	18.211	28.925	8.112	30	2.069	622.537
2.2. Shares and units, issued by collective investment schemes	310.792	158.735	68.598	147.494	124.814	100.400	29.669	18.961	14.606	974.069
2.3. Shares, rights and units apart from the ones in 2.1. and 2.2.	92.938	172.269	1.888	255.192	146.833	112.863	30.567	10.734	8.179	831.463
Financial instruments	1,954.855	1,019.576	972.360	1,585.495	802.120	880.828	145.610	134.149	83.164	7,578.157
Bank Deposits	73.828	-	60.979	97.263	-	561	8.502	4.231	17.491	262.855
Investment properties	81.460	44.105	-	40.140	-	45.884	7.010	3.051	-	221.648
Other assets, including:	504.911	94.276	307.473	554.852	217.386	56.930	38.599	2.360	5.926	1,782.712
Cash and cash equivalents	465.901	49.378	304.481	548.288	215.963	37.527	27.274	2.228	5.587	1,656.627
Receivables	39.010	44.898	2.992	6.564	1.423	19.403	11.325	132	339	126.085
<b>Total assets</b>	<b>2,615.053</b>	<b>1,157.956</b>	<b>1,340.811</b>	<b>2,277.750</b>	<b>1,019.506</b>	<b>984.203</b>	<b>199.721</b>	<b>143.791</b>	<b>106.581</b>	<b>9,845.372</b>

Source: R2 submitted templates by IER (pls. see section 3.10)

#### Notes:

1. The data in the above table is presented cumulatively for the PFs under review that are managed by each PIC
2. Comparing the data in the above table and pie-chart, which are based on data reported by IER, with the information reported to FSC by the PFs, certain inconsistencies are identified at sub-category level (due to reclassifications). Moreover, in respect of the PFs managed by PIC DSK – Rodina, IER have included derivatives in category shares, rights and units, whereas PFs have reported derivatives to FSC as other assets.

All the IER have selected a non-statistical sample, thus no extrapolation of findings was performed.

The procedures outlined below have been performed on the valuations of the financial instruments in the selected sample from each of the PFs portfolios, with the purpose of ensuring conformity with the requirements of the applicable regulatory framework (Ordinance 9 of the FSC of 19.11.2003):

- ▶ IER have checked that the valuation of the investment instruments is performed based on the information on the assets' market price of the previous business day. The valuation of the assets of the pension funds as of 30 June 2016 is carried out by the pension insurance companies on 1 July 2016 on the basis of the data (information from the stock exchange, etc.) for 30 June 2016 (this is the previous business date to the 1 July 2016).
- ▶ IER have verified the key sources of price information used, as received by the primary dealers of government securities, newsletters of regulated markets, electronic quoting systems (Reuters and Bloomberg) and other official sources.
- ▶ Where the primary method for valuation of the respective asset prescribed by Ordinance 9 (mark-to-market price) was not be applied, IER have described the exception and commented whether there were grounds for switching to valuation according to a method specified in Ordinance 9. Where the valuation was done by reference to comparable prices method, IER have commented on the underlying securities being used and their comparability to the security under valuation.
- ▶ In accordance with the applicable regulatory framework, IER have not reported cases where it is impossible to apply the procedure and manner for valuation under Ordinance No. 9 (both the primary method mark-to-market and the methods prescribed by Ordinance 9).

- ▶ In cases where a valuation technique is used by the Pension Fund, IER have reviewed, other than the methodology, as explained above, also the inputs used and commented on their reasonability, having performed a comparison of inputs with available market data (reference to Appendix 9.2 of the methodology – section 3 – Inputs to Valuation Techniques).
- ▶ In cases of bonds, shares and rights, admitted for trading on a regulated securities market, if the valuation is based on a price that is not the close price produced officially by the regulated market, IER have obtained an understanding and commented on the reasons for this deviation, by considering also the guidance in para 79(b) of IFRS 13. In case, there is no valid reason for the deviation, IER have quantified the effect of taking the close price for the valuation, where this was significant.
- ▶ In cases where the “highest bid” price valid at the end of the trading session is used, IER have commented whether this was indeed an executable quote and not just an indicative quote. No issues were reported in this respect.

## Detailed approach and findings

Based on the analysis of the reports of the IER on the valuation of financial instruments, the PMO provides below a summary of the proposed adjustments by IER, approach followed and the IER's findings per category of financial instruments (based on R5.1 template categorization). Thresholds were agreed with the SC to be used during the above-mentioned consistency checks. These are 10% deviations in cases of bonds valued under DCF method and 2% deviations in all other cases.

### Proposed adjustments

The proposed adjustments by IER in respect of Ordinance 9 valuation are as follows per category of financial instruments:

(in '000 BGN)

Categories of financial instruments	Financial instruments before adjustments	Ordinance 9 adjustments	Financial instruments after adjustments	% per category
Bonds admitted to trading	617.397	(7.151)	610.247	-1,2%
Bonds not admitted and not traded on regulated securities market	24.293	(3.049)	21.244	-12,6%
Debt securities	3.850.156	-	3.850.156	0,0%
Locally issued government securities	658.242	-	658.242	0,0%
Foreign shares and rights admitted to trading	770.750	-	770.750	0,0%
Shares and rights admitted to trading	680.668	-	680.668	0,0%
Foreign shares/units issued by collective investment scheme	728.567	-	728.567	0,0%
Shares/units issued by collective investment schemes	246.194	-	246.194	0,0%
Derivatives	1.888	-	1.888	0,0%
<b>Total</b>	<b>7.578.157</b>	<b>(10.200)</b>	<b>7.567.957</b>	<b>-0,1%</b>

Source R5.1

### Approach followed and findings

The approach followed by IER in respect of Ordinance 9 valuation is as follows per category of financial instruments:

#### 1. Locally issued government securities

This category concerns Bulgarian governmental bonds which are traded on a secondary dealer's market (OTC) which is not regulated. The main dealers of such securities are the

Bulgarian banks. The valuation method which is adopted in Ordinance 9 by all IER is an average price of each issue on the secondary interbank market on 30 June 2016. The average price of an issue is formed as the arithmetic average of the buying and selling prices, announced by three or more (most IER stated at least six dealers) primary dealers of government securities and determined in a manner consistent with the rules for valuation of the assets of the PIC and of the pension funds it manages (rules for asset valuation) – Art. 5, par. 1 of Ordinance 9. IER have received the information from the dealers, as communicated by the Pension Fund Association (BADDPO), regarding the applicable prices for the valuation and recalculated the price which should be applied according to Ordinance 9 methodology. They have reported no differences between the PF's calculation and their recalculation, except from rounding differences which were considered insignificant.

## 2. Debt Securities

In this category the PFs have mostly classified Bulgarian governmental bonds issued on foreign markets and foreign governmental bonds. The valuation is performed by all PFs by considering the last bid price on 30 June 2016 as announced by Bloomberg, after adjusting the accrued interest (first alternative valuation method). No differences were reported by the IER for this category.

One IER reported the following grounds for switching to the first alternative valuation method specified in Ordinance 9, as opposed to primary method:

- ▶ Data insufficiency - the Bloomberg system does not provide data related to the volume traded on the market as at a certain date (i.e. 30 June 2016), as a result the PFs and IER assessment is that the use of the last price published by the Bloomberg system as at a certain date may not be the most relevant price to be used for daily valuation of debt securities;
- ▶ Prudent approach - the valuation method based on the bid price is more prudent (the quotation being lower)

This IER also reported the effect of applying the primary method prescribed by Ord. 9 and they have verified a positive impact.

## 3. Corporate Bonds admitted to trading

This category includes municipal bonds, mortgage bonds, infrastructure bonds and other corporate bonds admitted on the Bulgarian regulated market. More than 53% of the financial instruments in this category are valued under the first alternative method stipulated in the Ordinance, which is based on bid offers existing with sufficient volume, and the rest are valued using a discounted cash flow (DCF) method.

- ▶ With regards to those valued under the first alternative method, the IER checked the officially published bid prices (i.e. Bloomberg) and due interest coupon and have performed recalculations of their value. The IER have identified no issues concerning the valuation of these financial instruments under the requirements of Ordinance 9. They have stated that the primary approach is not appropriate in cases where there is lack of concluded transactions on 30 June 2016 or/and the volume of daily trades of securities less than 3 per cent (3%) of the volume of the respective issue.

- ▶ With regards to the DCF valuations, the IER have reviewed the main assumptions of management, the mathematical accuracy as well as all the other relevant data such as cashflows, repayment schedules, coupon rates etc. to ensure that the data is accurate and in some cases have identified issues relating to either the future cash flows and / or discount rates.

The IER have also commented that the primary approach is not appropriate in cases where the requirement of 3% daily volume is not fulfilled, nor is the second approach requirement of 30 000 BGN total net value of orders or/and there is lack of concluded transactions on 30 June 2016.

#### Reported Findings:

Based on the analysis of the reports prepared by the IER on the valuation of financial instruments, issues were reported relating to understatement of the discount rate used in the DCF valuation of bonds admitted to trading and bonds not admitted and not traded on regulated securities market. IER commented that in many cases the PFs are not considering the specific information of the issuer of the bond (i.e. issuer industry, the capacity of the borrower to make its debt payments on time, the quality and value of the assets collateralizing the issue, the terms and conditions of the debt agreement, the quality of management), thus not all risks are captured and the bonds' value is usually overstated. In certain cases, the IER reported that the PFs use risk premiums that are not adequately supported by proper documentation for issuer/borrower's position.

During the performance of the PFAR exercise, the PMO had considerable interaction with the IER on this topic and through guidance, the IER had been requested to specifically consider:

- § The capacity of the borrower to make its debt payments on time
- § The quality and value of assets collateralizing the issue
- § The terms and conditions of lending agreements of the indentures
- § The quality of management.

The IER's assessment on these valuations was largely based on their judgement and their valuation specialists' assistance. More specifically, the nature of judgments, limitations and approaches included but are not limited to:

- § bond discount rate
- § average recovery rate (e.g. based on nature and quality of collateral)
- § time to sell the collateral
- § thresholds

Inconsistencies identified among PFs and the undertakings of IBSR exercise are summarized in section 6.

#### 4. Bonds not admitted and not traded on regulated securities market

This category includes municipal bonds, infrastructure bonds and secured bonds not yet admitted to trade on a regulated market. All IER used the discounted cash flows method and proposed adjustments similar to that described above.

No significant inconsistencies were identified among PFs in respect of “Bonds not admitted and not traded on regulated securities market” category of financial assets.

#### 5. Shares and rights admitted to trading

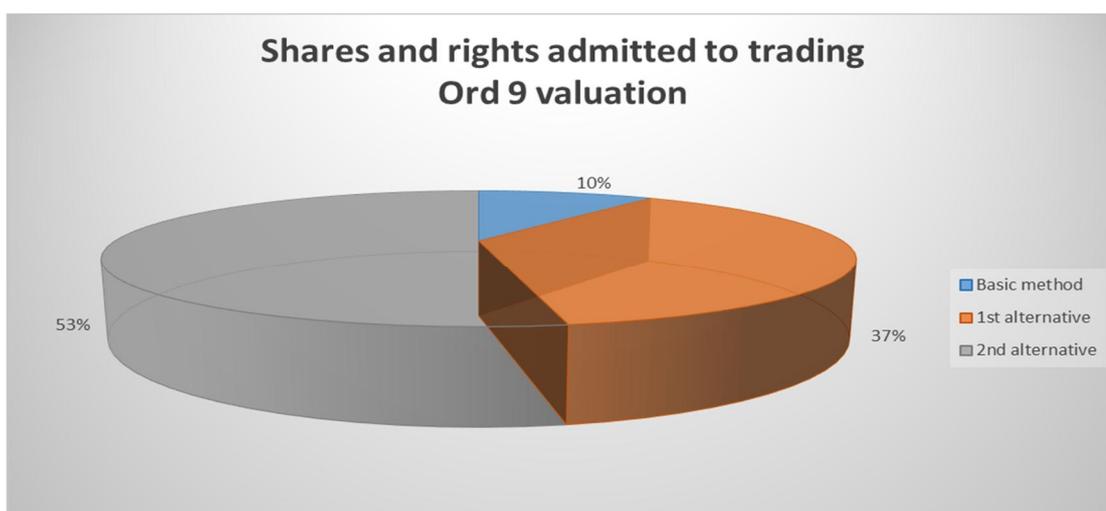
This category includes shares issued by Bulgarian companies, which are traded on the Bulgarian Stock Exchange. The IER have reviewed the valuation for Ordinance 9 purposes and found no discrepancies, thus proposed no adjustments. Depending on whether prescribed conditions are met per each ISIN, one of the following valuation methods, as prescribed by Ordinance 9, are applied:

Basic method (primary): the value of shares and rights is determined as the weighted average price of transactions concluded therewith on 30 June 2016 that has been announced in the stock exchange bulletin, considering that the volume of daily transactions therewith is no less than 0.01 per cent of the volume of the respective issue.

1<sup>st</sup> alternative: the value of shares and rights is determined as the average of the highest buying price of orders valid at the end of the trading session on the stock exchange on 30 June 2016 and the weighted average price of transactions involving the corresponding securities concluded on the same day, considering that transactions have been concluded and orders placed with buying price.

2<sup>nd</sup> alternative: the value of shares and rights is determined as the highest buy price from the orders valid at the end of the trading session on the stock exchange on the same day, considering that no transactions have been concluded on 30 June 2016 with securities from the respective issue.

Based on the analysis performed by the IER during the PFAR, it is observed that the majority of stocks are valued on alternative methods: average between sales and bid price or purely bid price, given the level of trading on the Bulgarian Stock Exchange (BSE):



No significant inconsistencies were identified among PFs in respect of the valuation of “Shares and rights admitted to trading” category of financial assets.

## 6. Foreign shares and rights admitted to trading

This category includes shares issued by foreign companies, which are traded on regulated markets. All IER have reviewed the valuation for Ordinance 9 purposes following the basic approach (last price of a transaction concluded therewith on 30 June 2016 at the time of closing of the regulated market on which they are traded) and they reported no discrepancies. The key sources of price information used were obtained from Bloomberg.

## 7. Foreign shares and/or units issued by a collective investment scheme

This category includes units issued by foreign collective investment schemes, some of which are traded on regulated markets in the EU and the USA (ETFs) and some of which are not traded on regulated market. For 81% of the total sample selected by the IER for this category the basic (primary) approach was followed (the last repurchase price, determined and published by 12 p.m. Bulgarian time on the valuation date) and for the rest the second alternative approach was applied (the last net asset price per share, respectively unit, determined and published by 12 p.m. Bulgarian time on the valuation date). The latter method was used only in cases where securities are not traded in a regulated market since there is no officially published repurchase price by the respective reviewer.

No significant inconsistencies were identified among PFs in respect of the valuation of "Foreign shares and/or units issued by a collective investment scheme" category of financial assets.

## 8. Shares and/or units issued by collective investment schemes

This category includes units issued by Bulgarian collective investment schemes, which are not traded on regulated market. In all cases the valuation of these instruments for Ordinance 9 purposes followed the basic (primary) approach (the last repurchase price, determined and published by 12 p.m. Bulgarian time on the valuation date) and the IER reported no discrepancies. The IER obtained officially published repurchase price by the respective issuer. Some of the IER have performed an independent research and cross-checked the price information as received via e-mail against the publicly available NAV (net assets value) information on the website of each mutual fund reporting no discrepancy.

## 9. Derivatives

This category consists of foreign exchange forward contracts. The PFs value the forwards in accordance with Ordinance No. 34. The contracts mature in less than one month, so according to the Ordinance No. 34 the PFs are allowed to take the difference in the exchange rates to value the contract. The IER sent confirmation letters and received banks' confirmations, including a valuation of the forward contracts, provided by the banks. The IER used the contract price announced by the contractors for the day, to which the valuation relates. The IER compared their valuation to the price used by the PFs and no discrepancies were identified.

## 5.2 Existence and Valuation of investment properties

### General Comments

Based on analysis of information included in IER' reports, the PMO summarises below information for investment properties:

The total balance of investment properties among PFs amounts to BGN 222m as of 30 June 2016, and represents 3% in the PFs' total assets. PFs managed by six PICs had investment properties in their investment portfolio as of 30 June 2016, while the total number of investment properties owned amounts to 79.

The balance of investment properties as at 30 June 2016 and their value percentage to total assets, are as follows (presented cumulatively for PFs under review managed by each PIC):

(in '000 BGN)

PIC	Total Assets 30/06/2016 (A)	Balance of investment properties 30/06/2016 (B)	(B)/(A)
Doverie	2.615.052	81.460	3,1%
Saglasie	1.157.956	44.105	3,8%
Allianz Bulgaria	2.277.750	40.140	1,8%
CCB-Sila	984.203	45.884	4,7%
Toplina	143.791	3.051	2,1%
Badeshhte/Future	199.721	7.010	3,5%
Total	7.378.473	221.649	3,0%

Source R4 and R5.2 template (pls. see section 3.10)

### Existence of investment properties

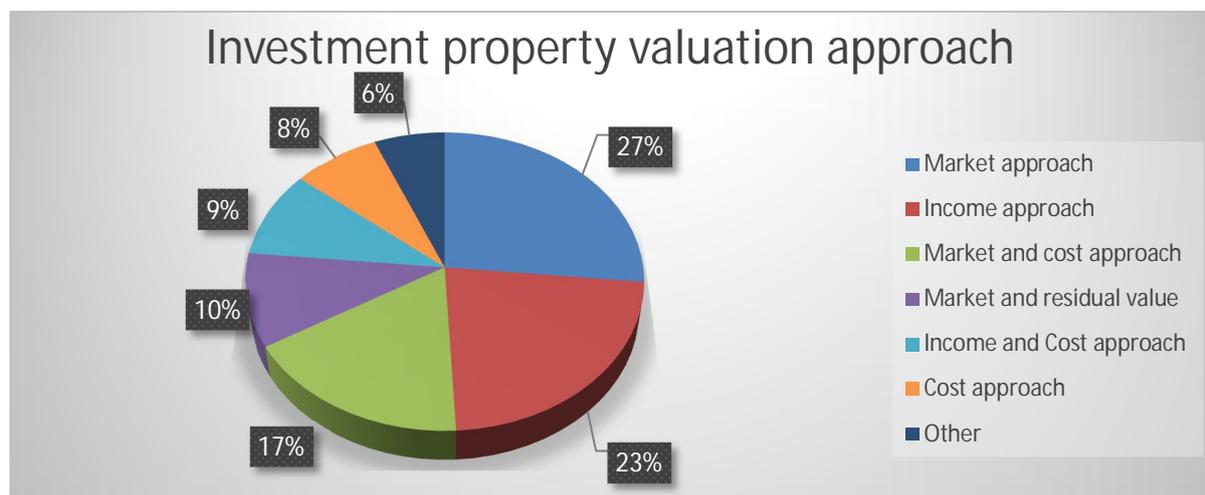
The IER performed the below procedures for the existence of the investment properties:

- ▶ The IER obtained from the PFs the investment properties breakdown as at 30 June 2016, reconciled it with the trial balance and then selected a sample to review the supporting documentation in respect of the ownership and valuation (some IER selected to review all investment properties). The IER who selected to review the investment properties on a sample basis, used the non-statistical sampling method (allowed under the methodology) and covered in their sample at least 90% of the outstanding balance as of 30 June 2016.
- ▶ The IER performed analytical review procedures (i.e. large items identification) comparing to the balances of 31.12.15 and provided their explanation for any differences identified above the reporting threshold.
- ▶ The IER examined the manner of storage of property documents certifying the ownership of investment properties is in compliance with the acting regulatory framework. They carried out a physical inspection of the storage and the documents are organized per year of acquisition and kept in separate folders

The IER did not identify any findings nor recommended any remedy actions regarding the existence of the investment properties.

## Valuation approach followed by the PF

Based on information included in IER's reports, the value of investment properties measured under each method as a percentage to the total value of the investment properties in the sample (before any adjustments proposed by IER), is presented below:



More specifically, the approaches followed are the following:

- ▶ Market approach (sales comparison method);
- ▶ Income approach (residual value);
- ▶ Mixed approach of market and cost approach;
- ▶ Mixed methodology of market and income approach (residual value);
- ▶ Mixed approach of income (income capitalization method) and cost approach;
- ▶ Cost approach

Other approaches include a mixed method of market and income approach and a market, income and cost approach.

## Procedures performed by the IER

All IER reviewed the application of the accounting policies regarding recognition and valuation of the investment properties to ensure the compliance with the applicable framework. Specifically, the following procedures were executed by the IER to verify the valuation of the investment properties, as required by the methodology:

- ▶ The IER have examined whether, after initial recognition, the investment properties is measured at fair value as required by article 10 of Ordinance 9. The IER inquired the management of the PF and obtained the signed declarations of the PF valuers in order to verify that the independent and authorized PF valuers are acceptable by the law requirements. The purpose of this procedure was to ensure the valuation of the investment properties was not assigned to person who:
  - § owns directly or through related parties shares in the PIC;
  - § is a member of a managing or controlling body of the PIC;

- § is a related party to a member of the managing or controlling body of the PIC or to a person who holds directly or through connected persons more than 5% of the PF's shares;
  - § is a seller of the real estate, a member of a managing or controlling body, a partner to, or a shareholder in the seller as well as a related party to the seller, to a member of its managing or controlling body, to a partner or shareholder thereof;
  - § may be influenced by another form of dependence or a conflict of interests
- ▶ The IER performed an assessment with respect to the valuation of the selected sample, by reviewing the valuation report, the valuation methodology and assessment in respect to the market value considering the applicable framework. The IER confirmed that Independent valuers with the necessary capacity under the Independent Valuers Act (either in house valuation specialists or external licensed appraisers / experts from a subcontractor were used), to perform the assessment in order to evaluate the methodology and the assumptions used by the independent valuer. More specifically, the IER performed the below procedures:
- § assessed the validity of the methodologies used in the valuation of the investment properties owned by the PFs, from the perspective of generally accepted valuation practices, in line with the applicable framework;
  - § carried out a high level market research on the asking prices of comparable properties to those examined in the valuations reports;
  - § compared their estimate with the investment properties outstanding balance as at 30 June 2016 and assessed whether there are any differences (the IER followed the market approach for the valuation of the investment properties);
  - § where the PFs have used a valuation method, the IER referred to the fair value hierarchy guidance of IFRS, and also to the guidance on valuation techniques and inputs (refer to methodology Appendix 9.2 – section 5 – Fair Value Hierarchy), and considered whether the methodology and inputs used are appropriate;
  - § In cases where a valuation technique is used by the PF, the IER reviewed, other than the methodology, as explained above, also the inputs used and commented on their reasonability, having performed a comparison of inputs with available market data (refer to methodology Appendix 9.2 – section 3 – Inputs to Valuation Techniques).

## Investment properties results

According to the info included in their reports, the IER considered whether to propose an adjustment for identified differences, following approaches that are analysed in detail in their reports.

In certain cases, the IER reported certain findings, without proposing adjustments (as these differences were within the acceptable range that has been set by their side).

Moreover, in certain cases IER noted the following limitations in their report:

- § Site inspection is not performed for the purpose of present review.
- § Legal due diligence of the properties is not performed.
- § All areas (sqm) used for the purpose of present review are based on ownership documents, without independent verification.

## Proposed adjustments

Based on the IER's reports, the total adjustments proposed by IER for the investment properties for PFs managed by 3 out of 6 PIC, are summarized as follows:

(in '000 BGN)

Pension Fund	Balance of investment properties 30/06/2016	Proposed Adjustments	Investment properties after adjustments	% per category
Doverie Universal Pension Fund	66.082	(10.912)	55.170	-16,5%
Doverie Professional Pension Fund	8.136	(2.441)	5.695	-30,0%
Doverie Voluntary Pension Fund	7.242	(1.866)	5.376	-25,8%
Saglasie Universal Pension Fund	34.758	-	34.758	0,0%
Saglasie Professional Pension Fund	5.951	-	5.951	0,0%
Saglasie Voluntary Pension Fund	3.395	-	3.395	0,0%
Allianz Bulgaria Universal Pension Fund	15.430	-	15.430	0,0%
Allianz Bulgaria Professional Pension Fund	776	-	776	0,0%
Allianz Bulgaria Voluntary Pension Fund	23.934	(3.563)	20.371	-14,9%
CCB-Sila Universal Pension Fund	36.525	(2.698)	33.828	-7,4%
CCB-Sila Professional Pension Fund	4.272	(472)	3.800	-11,1%
CCB-Sila Voluntary Pension Fund	5.086	(790)	4.297	-15,5%
Badeshte Universal Pension Fund	6.608	-	6.608	0,0%
Badeshte Professional Pension Fund	219	-	219	0,0%
Badeshte Voluntary Pension Fund	183	-	183	0,0%
Toplina Universal Pension Fund	1.440	-	1.440	0,0%
Toplina Professional Pension Fund	922	-	922	0,0%
Toplina Voluntary Pension Fund	688	-	688	0,0%
<b>Total</b>	<b>221.648</b>	<b>(22.740)</b>	<b>198.908</b>	<b>-10,3%</b>

The proposed adjustments arose mainly as a result of different approaches followed by the PICs and IER valuers. The independent valuers hired by the PICs followed mainly either the market approach or the income approach or a mixed approach of market and cost, while the IER valuers applied the market approach.

## PMO procedures and checks

The PMO selected a sample of investment properties to be further considered by their expert valuer. This process involved assessing the reasonability of the valuations, including the approach used, the assumptions, checking for consistency in approach, and whether the value per sqm seems within a reasonable range on the basis of the information provided by the IER and also on some selected individual market research and experience of the PMO valuer. During this process, additional clarifications were obtained from, or observations were provided to the IER in email communications and calls.

The PMO valuer's review on a sample basis indicates possible overvaluation concern for specific properties, taking into account the IER's acceptable threshold especially in cases where this reaches 20% deviation. The PMO noted that the above analysis of the PMO valuer was based on a desktop research, without site inspection and consideration of the development potential of the properties.

## 5.3 Other assets

### Procedures performed by the IER

The following procedures were performed by the IER, where the balance of the other assets was above the ST:

- ▶ The IER received a list detailing all other assets as of 30 June 2016;
- ▶ Other assets include the following:
  - § Receivables from repurchase agreements
  - § Dividends receivables
  - § Interest and principle receivables
  - § Bank charges
- ▶ The IER performed analytical review procedures (i.e. large items identification) comparing to the balances of 31.12.15;
- ▶ The IER selected a sample of other assets categories to review supporting documents in respect of ownership and valuation. For the repurchase agreements, the IER reconciled the balances with the custodian letters.
- ▶ The IER examined and assessed the recognition criteria of the balances of other assets.
- ▶ The IER examined the valuation of other assets selected, and whether the policies were in line with the requirements of applicable legislation;
- ▶ The IER examined whether impairment indicators of respective items exist in accordance with applicable framework.

The IER did not identify findings nor propose any adjustments in this area, except for a case with a recommendation that collaterals should be carefully reviewed and increased where needed.

## 5.4 Bank deposits and cash equivalents

The account includes the below:

- ▶ Bank deposits - by their nominal value and the accrued interest due as at the date to which the valuation relates;
- ▶ Cash in hand - by nominal value;
- ▶ Cash on checking accounts

The IER reviewed the valuation of the bank deposits and the cash equivalents and checked the existence through the custodian banks.

The IER did not identify findings nor provide recommendation and they did not propose adjustments in this area.

## 6. Consistency procedures

Consistency checks were performed between IER and PFs and also with the IBSR stream as regards, mainly the valuation of financial instruments but also the valuation approaches for the investment properties.

### Ordinance 9

The most significant inconsistencies in valuations among IER were in respect of bonds admitted to trading and bonds not admitted and not traded on regulated securities market. Starting from the information submitted by the IER and restricted to the instruments selected by the IER for review (in accordance with methodology), the PMO assessed the potential impact of common instruments' valuation differences for cases where the difference was above 10% for corporate bonds.

The SC decided to enforce the results post PFAR considering the consistency assessment made by the PMO. The PMO made an assessment of the situations where the assumptions used in the DCF valuations varied among IER and the difference was above 10%. Considering the need to ensure a level playing field, FSC will enforce in these situations a consistent adjustment across PFs, namely the adjustment with the most favorable impact resulting from consistency checks across all undertakings in PFAR and IBSR exercises (i.e.: the most favorable among all the values used by the IER for one bond). It is noted that the DCF valuations mentioned above are in line with those used for IFRS valuation purposes.

(in '000 BGN)

Pension Fund	Total assets	Total proposed adjustments Ord. 9 by IER	Consistency Effect of favourable values	Total assets after IER's adjustments and consistency effect
Doverie Universal Pension Fund	2.266.708	(10.912)	-	2.255.796
Doverie Professional Pension Fund	216.091	(2.441)	-	213.650
Doverie Voluntary Pension Fund	132.254	(1.866)	-	130.389
Saglasie Universal Pension Fund	936.548	(2.349)	681	934.880
Saglasie Professional Pension Fund	153.816	(174)	123	153.765
Saglasie Voluntary Pension Fund	67.592	(42)	-	67.550
DSK - Rodina AD Universal Pension Fund	1.159.743	-	-	1.159.743
DSK - Rodina AD Professional Pension Fund	112.730	-	-	112.730
DSK - Rodina AD Voluntary Pension Fund	68.338	-	-	68.338
Allianz Bulgaria Universal Pension Fund	1.741.668	-	-	1.741.668
Allianz Bulgaria Professional Pension Fund	153.476	-	86	153.561
Allianz Bulgaria Voluntary Pension Fund	382.606	(3.563)	-	379.043
NN Universal Pension Fund	847.152	-	-	847.152
NN Professional Pension Fund	62.368	-	-	62.368
NN Voluntary Pension Fund	109.986	(105)	-	109.881
CCB-Sila Universal Pension Fund	814.321	(3.691)	437	811.068
CCB-Sila Professional Pension Fund	99.528	(624)	83	98.987
CCB-Sila Voluntary Pension Fund	70.353	(943)	99	69.510
Badeshte Universal Pension Fund	185.070	(4.525)	885	181.430
Badeshte Professional Pension Fund	11.876	(148)	55	11.783
Badeshte Voluntary Pension Fund	2.775	(95)	22	2.702
Toplina Universal Pension Fund	91.739	(927)	242	91.053
Toplina Professional Pension Fund	41.780	(439)	131	41.473
Toplina Voluntary Pension Fund	10.272	(96)	27	10.203
Pension Insurance Institute Universal Pension Fund	89.362	-	-	89.362
Pension Insurance Institute Professional Pension Fund	16.482	-	-	16.482
Pension Insurance Institute Voluntary Pension Fund	737	-	-	737
<b>Total</b>	<b>9.845.372</b>	<b>(32.940)</b>	<b>2.872</b>	<b>9.815.305</b>

In case the consistency checks were applied for the PFAR exercise only (i.e. excluding IBSR), the consistency effect would amount to BGN 1.302k in total (vs BGN 2.872k in the above table).

## IFRS

The two main areas of inconsistencies identified refer to the valuation of equities and bonds (where differences were mainly the result of different assessment of active versus inactive markets and source of information and assumptions considered for valuation) and the valuation approach followed by the PIC valuers and the IER's valuers for the valuation of the investment properties.

IFRS provide guidance on market activity assessment and prescribe the use of observable and unobservable inputs and required adjustments. The IER were required to make maximum use of the market inputs and to rely as little as possible on specific inputs. Adjustments need to be made to reflect the specific factors and inherent risk in the specific valuation technique. In application of this paragraph, clarifications were also issued to the methodology to require compliance with article B44 from IFRS 13.

Valuation was performed by the PFs and reviewed by the IER. Such valuations were based on application of International Valuation Standards, International Financial Reporting Standards and if, more conservative, the locally established best practices, the selection of the most appropriate method/technique being at the discretion of the appraiser and requiring exercise of expert judgment. It was the responsibility of the IER to ensure that the assumptions and the techniques used in the valuation are adequate and accurate.

As a consequence of the significant level of expert judgement required in this assessment, inherent differences resulted between valuation for similar instruments between different IER and PFs (due to different assessment of active versus inactive markets, sources of information used or different quotations as allowed by IFRS, different alternative valuation approaches or assumptions, subsequent sales of portfolios).

Certain IER assessed the market as being inactive for specific instruments listed on Bulgarian Stock Exchange, therefore applying adjustments based on other methods for valuation, different from the quotation on the respective market. Other IER have assessed the market active and used the transaction prices for the same instruments from the Bulgarian Stock Exchange.

Starting from the information submitted by the IER and restricted to the instruments selected by the IER for review (in accordance with methodology), the PMO assessed the potential impact of common instruments' valuation differences for cases where the difference was above 2% (equities and government bonds) and 10% for corporate bonds.

The SC decided to enforce the results post PFAR considering the consistency assessment made by the PMO. Considering the need to ensure a level playing field, FSC decided to enforce in these situations a consistent adjustment across PFs, namely the adjustment with the most favorable impact resulted from consistency checks across all undertakings in PFAR and IBSR exercise (i.e.: the most favorable among all the values used by the IER for one bond). The effect of these consistency checks are presented in the table below:

(in '000 BGN)

Pension Fund	Total assets	Total proposed adjustments IFRS by IER	Consistency effect of favourable values	Total assets after IER's adjustments and consistency effect
Doverie Universal Pension Fund	2.266.708	(10.912)	1.988	2.257.784
Doverie Professional Pension Fund	216.091	(2.441)	262	213.912
Doverie Voluntary Pension Fund	132.254	(1.866)	167	130.555
Saglasie Universal Pension Fund	936.548	(2.140)	2.199	936.607
Saglasie Professional Pension Fund	153.816	(720)	877	153.972
Saglasie Voluntary Pension Fund	67.592	413	319	68.324
DSK - Rodina AD Universal Pension Fund	1.159.743	-	442	1.160.185
DSK - Rodina AD Professional Pension Fund	112.730	-	52	112.782
DSK - Rodina AD Voluntary Pension Fund	68.338	-	47	68.386
Allianz Bulgaria Universal Pension Fund	1.741.668	-	2.664	1.744.332
Allianz Bulgaria Professional Pension Fund	153.476	-	258	153.734
Allianz Bulgaria Voluntary Pension Fund	382.606	(3.563)	463	379.506
NN Universal Pension Fund	847.152	288	0	847.440
NN Professional Pension Fund	62.368	26	7	62.401
NN Voluntary Pension Fund	109.986	(58)	-	109.929
CCB-Sila Universal Pension Fund	814.321	(8.209)	8.019	814.132
CCB-Sila Professional Pension Fund	99.528	(2.258)	2.633	99.903
CCB-Sila Voluntary Pension Fund	70.353	(2.524)	2.276	70.105
Badeshte Universal Pension Fund	185.070	(5.727)	4.040	183.384
Badeshte Professional Pension Fund	11.876	(303)	573	12.146
Badeshte Voluntary Pension Fund	2.775	(103)	22	2.695
Toplina Universal Pension Fund	91.739	217	500	92.455
Toplina Professional Pension Fund	41.780	93	243	42.117
Toplina Voluntary Pension Fund	10.272	(37)	66	10.301
Pension Insurance Institute Universal Pension Fund	89.362	36	385	89.784
Pension Insurance Institute Professional Pension Fund	16.482	6	105	16.594
Pension Insurance Institute Voluntary Pension Fund	737	1	4	741
<b>Total</b>	<b>9.845.372</b>	<b>(39.779)</b>	<b>28.611</b>	<b>9.834.204</b>

Source R5.1 template

# 7. Corporate Governance, processes and internal control framework, accounting policies

## 7.1 Corporate Governance

### Procedures performed by the IER

- ▶ All IER have obtained the accounting policies for the valuation of assets and the IER confirmed that the management of the PICs have submitted the policies to the FSC. Also, the IER reviewed the notifications to the FSC related to any changes of the policies.
- ▶ All IER confirmed that there is a specialized internal controls unit appointed by the managing bodies of the PICs
- ▶ The IER ensured that the PICs have put in place an internal control department which monitors the compliance with requirements of Ordinance 9. The IER described the role and the activities of the internal control department. Also, the IER mentioned that the internal control department is responsible to perform inspections and prepare reports including findings and recommendations against the violations of the laws and the internal regulations of the PIC, usually in monthly, quarterly and annual basis. These reports are presented to the management of the PIC, CEO, Audit Committee and General Meeting of the shareholders.
- ▶ All IER confirmed that the PFs keep information related to prices on paper basis and electronic format and their sources used as a basis for valuation of the assets for a period at least 5 years.

### Findings and Recommendations

There are no findings and all IER concluded that the system of corporate governance is appropriate, apart from some instances where the IER reported staffing issues of the Internal Control Department.

## 7.2 Processes and internal control framework

### Procedures performed by the IER

- ▶ The IER performed interviews with the PF representatives, obtained the supporting documentation and performed walkthrough procedures in order to understand the following main processes, from the initiation to recording and measurement:
  - § Selection of new investments
  - § Monitoring performance and risks of the investment portfolio
  - § Investments in securities issued by related parties
  - § Monitoring restrictions on investments according to the regulatory framework
  - § Valuation of pension funds' assets
- ▶ The IER described the main activities and the responsibilities of the Investment and Risk Committee.

- ▶ The IER identified the key controls established and implemented by the PFs, including the application controls and the entity level controls.
- ▶ The IER performed test of controls procedures for a sample selected. The IER described the sampling approach per each category of assets for the period 01.01 – 30.06.2016, which was in line with the methodology.
- ▶ The IER comment on whether controls were implemented and whether found effective. The IER did not report any deficiencies of design or operation that could prevent or detect material errors or emissions.
- ▶ The IER described procedures performed by the Risk Management department and described the risk identified by the PFs. The main risks mentioned by the IER for all PFs are as follows:
  - § Credit risk
  - § Market risk
  - § Currency risk
  - § Interest rate risk
  - § Liquidity risk
  - § Political risk
  - § Operational risk

The IER described the procedures followed by the Risk Management department and the controls established to mitigate the risks.

- ▶ The IER obtained the investment policy and describe the high level areas in the final report. Also, the IER reviewed that the PFs applied the restrictions of the investment policy and there are no exemptions.

## Findings and Recommendations

For certain PFs, the IER included findings and recommendations in the final report related to the IT controls (password length and complexity in the system, change management policy, test recoverability back-ups). In another PF, a finding and recommendation related to putting in place a more detailed investment policy.

## 7.3 Accounting policies

### Procedures performed by the IER

The IER reviewed the main accounting policies of the PIC and examined whether they are in compliance with the applicable accounting framework. The aim of the review of the accounting policies was to ensure that the PIC had for each PF a robust set of clearly defined policies and processes for the correct interpretation of accounting rules or other relevant standards in the pension insurance sector, where any issues identified are most likely to result in misstatement of the PF' assets value.

### Findings and Recommendations

The IER identified findings in this section as the accounting policies of some PICs were brief and general and did not provide a clear understanding of the policies followed by them. It was recommended that the policies followed for the IFRS financial statements of the PFs be more detailed and more information to be included especially as to the valuation and disclosures of assets.

## 8. Reliability, quality, sufficiency and relevance of data

The IER obtained from the PFs at a minimum an analysis of investments, as follows:

- ▶ Per type of investment;
- ▶ ISIN;
- ▶ Issuer;
- ▶ Quantity and value per item, as well as total value;
- ▶ Custodian bank
- ▶ Currency

The IER executed the below procedures:

- ▶ ensured the data was used consistently over time in the valuation of assets;
- ▶ ensured the data was consistent with the purposes for which it will be used;
- ▶ ensured that the amount and nature of the data ensure that the estimations made (on the basis of the data) did not include a material estimation error;
- ▶ ensured the data appropriately reflect the risks to which each PF was exposed with regard to its obligations;
- ▶ checked for duplication of unique ISIN fields;
- ▶ checked that the investments portfolio did not include securities with expired date;
- ▶ checked that the fields had positive value, were not negative and vice versa (e.g. investment properties);
- ▶ checked how the coupon rate was treated for all bonds securities;
- ▶ checked for reasonability on the investment unit price in the sample in comparison to 31.12.2015 in order to verify consistency in pricing using qualitative factors (for example in order to identify changes in the inputs and assumptions that PF may consider in arriving at estimates of fair value when transactions for a specific security (or similar securities) were not readily observable).
- ▶ checked that the currency data was available for the foreign securities;
- ▶ ensured that the medium of keeping the information on prices and their sources used as a basis for valuation of the assets, was appropriate and in line with the requirements of Ordinance 9.
- ▶ The IER did not identify inconsistencies or insufficiencies for which the IER should request additional information in order to be able to quantify on the impact or valuation of assets as well as to consider these items in the reporting of risks to the PM, exercising professional judgment the IER should consider the need to extend the sample size.

The IER performed all the above procedures without reporting exemptions and there were no findings and recommendations in this section.

## 9. Investments in Related Parties - results

### 9.1 General Comments

A significant part of the scope of the PFAR was to review the process of identification of related parties of the PIC managing the PF as well as the nature of the relationship between the company and these related parties, and inspection on whether there are investments of the pension fund in securities issued by parties related to the PIC. The IER were requested to perform specific minimum procedures and also to request any other appropriate information, details or supporting documents based on their professional judgment, in order to be able to conclude and to quantify any potential impact from investments in securities issued by the PIC or parties related to it, in terms of three different definitions: In the Bulgarian Social Insurance Code ("the Code") as at 30 June 2016, in IAS 24 (together with IAS 28, IFRS 10 and IFRS 11) and in the amendments to the Code effective as of 12 August 2016, including its amendments in certain provisions that affect the definitions for related parties and control.

The main objectives of the procedures around investments in related parties summarized as follows:

- ▶ understand the process of the identification of related parties of the PICs managing the PFs, as well as the nature of the relationships between the PFs and their related parties;
- ▶ check whether there were investments of the PFs in securities issued by related parties;
- ▶ check whether there were investments of the PFs in securities issued by parties that might not meet the SIC definition of related parties but be considered related parties in line with the IAS 24 requirements;
- ▶ examine whether there could be differences in the related parties identified arising from the changes of the Code effective 12 August 2016.

### 9.2 Procedures performed by the IER

The IER were required by the methodology and executed the following procedures, according to their reports:

- ▶ obtained the complete list of related parties with the PICs as of 30 June 2016 and performed interviews with the management of the PFs regarding the completeness of the related parties. In certain cases, IER focused on shareholders holding more than 20% of the share capital;
- ▶ performed interviews with the management in order to understand the process and the control environment of the PFs to identify the investments in related parties, the identity of the related parties, the nature of the relationship between the PFs and these related parties. The IER ensured that all PFs have a control mechanism to identify and disclose the related party relations according to the applicable financial reporting legal framework;

- ▶ The IER reviewed the internal processes of authorization and approval of the investments prior to each investment acquisition.

The IER exercised their professional judgment and concluded based on the procedures performed that there were no investments in related parties as of 30 June 2016 according to the definition in the SIC. The main sources used by IER were minutes of shareholders' meetings, communication with regulators, available public information (Trade Register).

As a general conclusion, the PICs have appropriate control mechanisms regarding the identification of related parties and the investment policies are in line with the restrictions of current legislation for the investments in related parties.

### 9.3 Findings and Recommendations reported under SIC requirements

In some cases, the IER identified that there was no formal policy for maintaining a complete list of related parties, thus recommended: (a) a comprehensive checklist to be completed as part of the process for authorization of new investments, (b) conduct and document more in-depth research into the persons that actually exercise control over the investments.

In certain cases, the researched entities were significant in number. Given this, there were limitations regarding the identification of possible other related parties than the ones disclosed by the PICs, as identifying a related party requires a far broader set of information to be analysed.

## 10. Review of the risks of the pension funds

Based on the performed procedures, and their best knowledge of the Bulgarian market and of international practices, the IER identified and raised key risks that are considered as being capable of affecting the entire pension fund sector or financial market. This risk assessment included not only a compliance with the provisions of the applicable legal framework, but also involved the identification of the main risks not captured or not fully captured by the legal framework.

### 10.1 Risk assessment - provisions of the applicable legal framework

- ▶ The IER examined whether the investments of the balance sheet assets of the UPFs and PPFs comply with the quantitative restrictions in Art. 178 of the SIC. There are no findings and recommendations for this step apart from certain cases where the IER mentioned in their report that they had not identified breach of the restrictions but all limits were almost fully utilized which gave low buffers in case of adverse price movements. The IER recommended these limits per category to be decreased in order to ensure sufficient buffers also the management to strictly follow them.
- ▶ The IER examined whether the investments of the balance sheet assets of the VPFs comply with the quantitative restrictions in Art. 251 of the SIC. There are no findings and recommendations for this step apart from the cases mentioned above.
- ▶ The IER examined and commented on the controls that the PFs have implemented in order to ensure they complied with the above restrictions. The IER did not identify any findings and did not provide any recommendations. Only one IER mentioned that certain PFs did not undertake long-term measures to prevent such breaches of restrictions in the future, by continuing to invest close to the limit. This made the PFs vulnerable to even small price changes which could easily passively breach the limit.
- ▶ The IER performed any other procedures as deemed appropriate depending on the risks identified by the IER for the specific PF and they did not identify any findings or provided recommendations

### 10.2 Risks not captured or not fully captured by the legal framework

#### 10.2.1 Compliance of valuations of financial instruments and investment properties to IFRS principles

Although the PICs report on a regular basis to the FSC based on Ordinance 9, the PFs are required and do prepare their financial statements in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union (EU).

## Analysis on the basis of IFRS requirements

The IER were requested to assess, based on the procedures performed for the valuation of financial instruments, to what extent the policies selected for the valuation of the instruments are in line with the provisions of IFRS 13 in relation to fair value measurement. They were also asked to comment on the differences identified between current policies for the valuation of financial instruments and IFRS. Thus, the IER performed procedures in their selected sample from the PF portfolios for the valuation of the financial instruments, with the purpose of ensuring conformity with the requirements of IFRS.

Some IER have assessed and confirmed that the policies that PFs selected for the valuation of the financial instruments are in line with the provisions of IFRS 13 in relation to fair value measurement.

Other IER commented that none of the financial instruments of the PFs are valued on a daily basis (and accordingly also on 30 June 2016) in accordance with the requirements of IFRS due to the fact that the requirements of Ordinance 9 do not include taking into consideration all of the circumstances which should be taken into consideration in a fair value estimation under IFRS 13 and which might respectively have an impact on the estimation of this value.

Additional potential differences between Ordinance 9 and IFRS valuations were identified by IER, in respect of:

a) debt securities, where the brokered market (determined by the PF as a principal market under the requirements of IFRS 13) presents information on the bid price also on days that are not working days in Bulgaria. In respect of this exercise, there is no difference in the valuation of those financial instruments at 30 June 2016, since the measurement date of the fair value under IFRS 13 (30.06.2016) is a working day;

b) Shares accepted for trading in Bulgaria, where although there is information for the last price of concluded transaction (the closing price) and it might be considered that the price of the last transaction is the most representative for the fair value of the financial instrument at the measurement date, the PFs follow the valuation under Ord.9 which requires the use of the weighted average price of transaction concluded with them on the previous working day (primary method) or average of the published in the stock exchange bulletin highest "bid" price from the offers active at the end of the trading session of the regulated market for the previous working day and the weighted average price of transaction concluded for the respective securities on the same day (first alternative method).

Other IER merely mentioned that the applicable framework requirements on valuation of the financial instruments are not based on IFRS 13, but on Ordinance 9.

Specifically for the valuation of shares/units issued by collective investment schemes, the IER referred also to references in IFRS 13.BC 238(a), included in Appendix 9.2 – section 6 – "Fair Value of Investments in investment companies", of the methodology. The IER were requested to consider whether it is reasonable that NAV be used taking into consideration the valuation techniques and inputs used by the Investment Entity when estimating NAV. This would assist in determining whether Investment Entity valuation practices and inputs are aligned with those that would need to be used by a market participant in respect of the equity instruments of the investment entity.

Without proposing any valuation adjustments, in certain cases IER commented that PFs do not perform a look through analysis of the investment funds in which the PF has investments. The IER performed a desktop research in order to identify publicly available information on the underlying investments of the mutual funds. They have found limited information and where there was available

information they noticed that a number of underlying investments of the mutual funds are also direct investments of the PF. They did not reflect the respective valuation aspects in the mutual funds valuation as they did not have access to 30 June 2016 composition per specific investments of the mutual fund. Also, they identified a number of investments made by the mutual funds in companies that are related parties of the PFs.

Some other IER commented that the published NAV per share represent the exit price under the meaning given to that term in IFRS 13.24 and according to IER should be used without adjustment for the fair value measurement. As a result, they had not proceeded in any recommendations.

All other IER reported no findings as the PFs have investments in financial instruments of collective investment schemes for which there are quoted repurchasing prices.

## Investment properties valuation under IFRS provisions

The IER confirmed, based on the procedures performed for the valuation of investment properties that the policies selected for the valuation of the properties are in line with the provisions of IAS 40 (fair value model) and IFRS 13.

Nevertheless, the IER reported the following proposed adjustments on investments properties' valuation, which are in line with the proposed adjustments for Ord. 9:

(in '000 BGN)

Pension Fund	Balance of investment properties 30/06/2016	Proposed Adjustments	Investment properties after adjustments	% per category
Doverie Universal Pension Fund	66.082	(10.912)	55.170	-16,5%
Doverie Professional Pension Fund	8.136	(2.441)	5.695	-30,0%
Doverie Voluntary Pension Fund	7.242	(1.866)	5.376	-25,8%
Saglasie Universal Pension Fund	34.758	-	34.758	0,0%
Saglasie Professional Pension Fund	5.951	-	5.951	0,0%
Saglasie Voluntary Pension Fund	3.395	-	3.395	0,0%
Allianz Bulgaria Universal Pension Fund	15.430	-	15.430	0,0%
Allianz Bulgaria Professional Pension Fund	776	-	776	0,0%
Allianz Bulgaria Voluntary Pension Fund	23.934	(3.563)	20.371	-14,9%
CCB-Sila Universal Pension Fund	36.525	(2.698)	33.828	-7,4%
CCB-Sila Professional Pension Fund	4.272	(472)	3.800	-11,1%
CCB-Sila Voluntary Pension Fund	5.086	(790)	4.297	-15,5%
Badeshte Universal Pension Fund	6.608	-	6.608	0,0%
Badeshte Professional Pension Fund	219	-	219	0,0%
Badeshte Voluntary Pension Fund	183	-	183	0,0%
Toplina Universal Pension Fund	1.440	-	1.440	0,0%
Toplina Professional Pension Fund	922	-	922	0,0%
Toplina Voluntary Pension Fund	688	-	688	0,0%
<b>Total</b>	<b>221.648</b>	<b>(22.740)</b>	<b>198.908</b>	<b>-10,3%</b>

## Financial instruments valuation under IFRS provisions

In cases, where, as indicated above, financial assets were not valued in compliance with IFRS, the IER aimed to perform an IFRS-compliant valuation and determine the differences in valuation.

Some of the differences reported by the IER for IFRS purposes were similar to the adjustments proposed for Ord. 9 purposes (mainly for bonds where a DCF approach was followed), while differentiations arose in the category Shares and rights admitted to trading and Local issued

government bonds.

The below table presents a snapshot of the above observations:

(in '000 BGN)

Categories of financial instruments	Ord 9 Adjustments	Additional adjustments for IFRS purposes	Total adjustments IFRS
Bonds admitted to trading	(7.151)	-	(7.151)
Bonds not admitted and not traded on regulated securities market	(3.049)	-	(3.049)
Locally issued government securities	-	(1.322)	(1.322)
Shares and rights admitted to trading	-	(5.517)	(5.517)
<b>Total</b>	<b>(10.200)</b>	<b>(6.840)</b>	<b>(17.039)</b>

Source R5.1 template

A summary of the approach followed by the IER for checking the valuation of the financial instruments in their selected sample, together with the findings and consistency checks per category of financial instruments (based on R5.1 categorization) is presented below:

#### 1. Locally issued government securities

This type of securities concerns Bulgarian governmental bonds which are traded on a secondary dealer's market (OTC) which is not regulated. The main dealers of such securities are the Bulgarian banks.

The valuation method adopted by most IER is an average price of each issue on the secondary interbank market on 30 June 2016 (same valuation approach as primary one under Ord.9), and is formed as the arithmetic - average of the buying and selling prices, announced by six primary dealers of government securities (banks). The IER supported their approach referring to:

- § Quoted price, provided by third parties, as described in par.B45 in IFRS 13, or
- § Mid-market pricing, as permitted by par. 71 from IFRS 13.

In other cases, IER consider the valuation method followed by Ord.9 not compliant with IFRS. They have used last bid price available as at 30 June 2016 and determined an impact of BGN 1.322k. Moreover, the locally issued government securities measured under last bid valuation represent the 16% of total locally issued government securities reviewed by IER, but the deviation for the specific ISINs did not exceed 2% (PMO's threshold in this category of assets).

In all cases the brokered/dealers market is considered by IER as active, due to the fact that the deals occur with sufficient volume and frequency. In certain cases, IER also comment that quotations for Bulgarian government bonds are available on a daily basis in public sources such as Bloomberg and Reuters (the same is applicable for Romanian Government Bonds).

#### 2. Debt Securities

As debt securities PFs have mostly classified Bulgarian governmental bonds issued on foreign markets and foreign governmental bonds. The valuation is performed by all IER considering the last bid price on 30 June 2016 as announced by Bloomberg, after adjusting the accrued interest (first alternative valuation method).

The market is considered as active by all IER as pricing information is available on an ongoing basis.

### 3. Bonds admitted to trading

This category includes municipal bonds, mortgage bonds, infrastructure bonds and other corporate bonds admitted on the Bulgarian regulated market. For 48% of the securities in this category that were included in IER' sample, IER consider the market as inactive and proceeded in discounted cash flow valuation (income approach). In cases where IER consider the market as active (52% of the total sample selected) they used highest bid price valuation plus due interest coupon.

With regards to the cases where IER have considered the market as inactive and they followed income approach (DCF), the IER have followed the same approach as that reported for Ord 9 purposes and concluded on the same findings and recommendations.

Inconsistencies were identified among PFs in respect of "Bonds admitted and traded on regulated securities market" category of financial assets and their effect is presented in section 6.

### 4. Bonds not admitted and not traded on regulated securities market

This category includes municipal bonds, infrastructure bonds and secured bonds not yet admitted to trade on a regulated market. All IER considered the market as inactive, used the discounted cash flows method and proposed adjustments following the approach similar to Ord 9 valuation.

No inconsistencies were identified among PFs in respect of "Bonds not admitted and not traded on regulated securities market" category of financial assets.

### 5. Shares and rights admitted to trading

This category includes shares issued by Bulgarian companies, which are traded on the Bulgarian Stock Exchange. In accordance with IFRS, these should be measured at fair value in accordance with IFRS 13. The most reliable source of fair value for securities is the existence of active market for the same or similar assets. In the lack of active market, alternative valuation models should be applied based on reliable and as much as possible, observable information. The IER used their judgment to determine whether the market for individual securities were active or inactive, using mainly the frequency of trades and trade days, in some cases reaching different conclusions.

In cases where the market was considered active the IER followed in most cases quoted price valuation for the same asset and in most cases the valuation method was identical to that followed for Ordinance 9 purposes. Others referred to mid-market pricing (par.71 of IFRS 13), or best bid price valuation (par.70 of IFRS 13).

In cases where the market was considered inactive by the IER, they followed different alternative approaches:

- § mid-market pricing
- § best bid price
- § market multiples valuation approach
- § cost approach with net assets value
- § capitalization of earnings

To address the above inconsistencies, the PMO agreed with the SC to focus on differences above 10% deviation among PFs for cases of bonds valued under DCF method and above 2% deviations in all other cases. The effect of this consistency check is presented in section 6.

#### 6. Foreign shares and rights admitted to trading

This category includes shares issued by foreign companies, which are traded on regulated markets. IFRS valuation technique used by all IER is Level 1 of the fair value hierarchy, using closing price on 30 June 2016 received from Bloomberg. The markets where the securities are traded were considered by all IER as active.

#### 7. Foreign shares and/or units issued by a collective investment scheme

This category includes units issued by foreign collective investment schemes, some of which are traded on regulated markets in the EU and the USA (ETFs) and some of which are not traded on regulated market. For 81% of the total sample selected by the IER for this category, the IER followed last repurchase price and for the rest net asset price per share. The latter method was used by IER only in cases where securities are not traded in a regulated market since there is no officially published repurchase price by the respective reviewer.

No significant inconsistencies were identified among PFs in respect of the valuation of "Foreign shares and/or units issued by a collective investment scheme" category of financial assets.

#### 8. Shares and/or units issued by collective investment schemes

This category includes units issued by Bulgarian collective investment schemes, which are not traded on regulated market. In all cases the valuation of these instruments for IFRS purposes followed the last repurchase price on the valuation date and the IER reported no discrepancies. The IER obtained officially published repurchase price by the respective issuer. Some of the IER have performed an independent research and cross-checked the price information as received via e-mail against the publicly available NAV (net assets value) information on the website of each mutual fund reporting no discrepancy.

#### 9. Derivatives

This category consists of foreign exchange forward contracts. The IFRS valuation technique used by the IER is quoted price, provided by third parties, in accordance with par. B45, IFRS 13 and they considered the market inactive. The IER sent confirmation letters and received banks' confirmations, including a valuation of the forward contracts, provided by the banks. The IER used the contract price announced by the contractors for the day, to which the valuation relates. The IER compared their valuation to the price used PFs and no discrepancies were identified.

### 10.2.2 Assessment of investment (or other) risks which may not be (fully) captured by the legal framework.

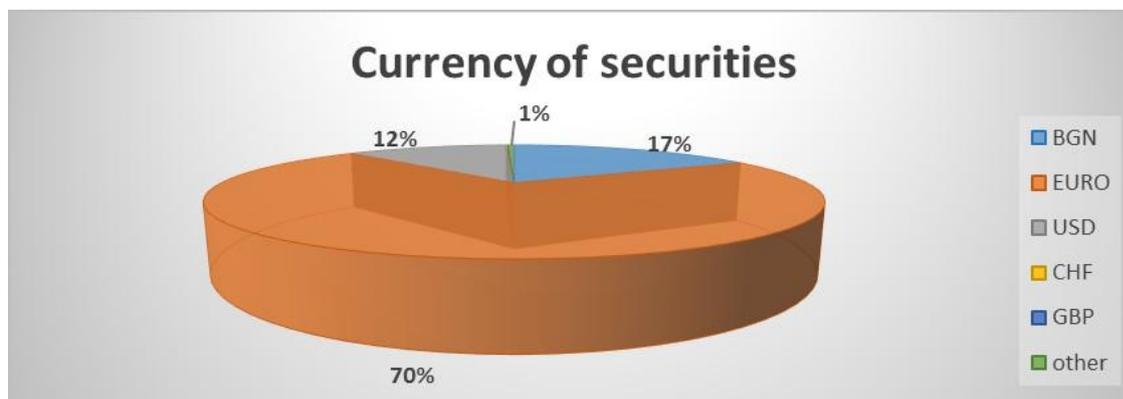
The IER were requested to present their conclusions around the risks they identified for the pension fund sector, taking into account the procedures they have performed but also the work done around the PICs' risk assessment process.

They were also asked to consider sensitivity analysis and comment on the existence of concentrations of more than 10% per category.

## Credit risk

### a) Currency profile

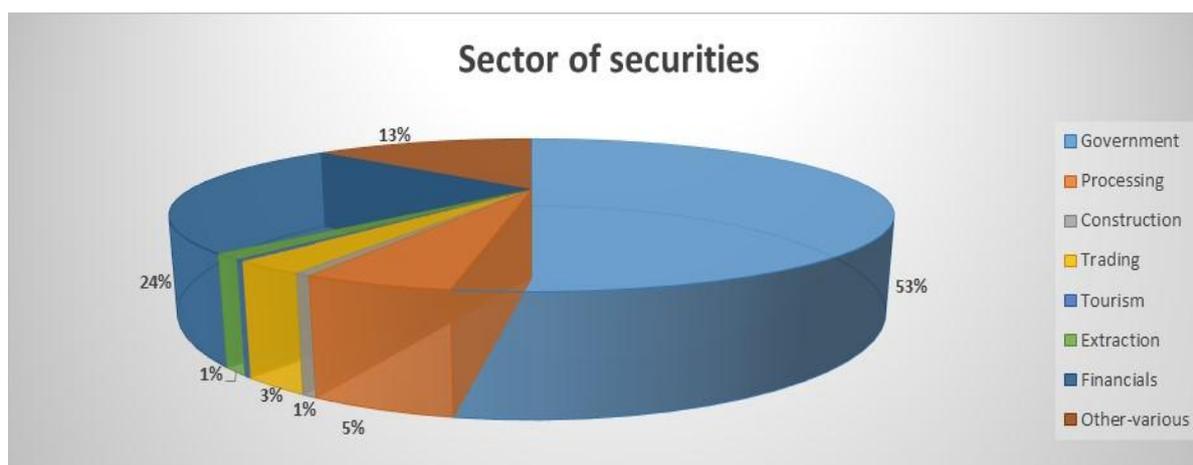
Based on IER reports the investments of the PFs in terms of concentration by currency are summarized and presented in the following chart:



The PFs mainly have assets denominated in BGN and EUR as of 30 June 2016, while in some cases exposure to USD was also significant (up to 20% per PF). In these cases the IER commented that the PFs use currency forward contracts to hedge the exchange rate risk.

### b) Sector profile

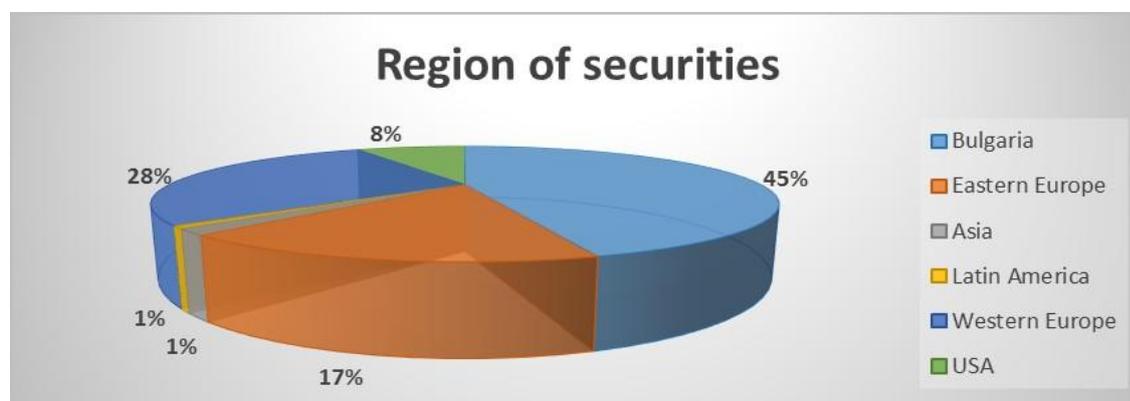
Based on IER reports the investments of the PFs in terms of concentration by sector are summarized and presented in the following chart:



As a general observation, all PFs have invested significant part of their portfolio in government bonds. IER consider this type of investment as risk free or with limited risk. Also, significant part of the PF's portfolio was invested in collective investment schemes and special investment purpose JSC (which are classified as "financial services").

### c) Region profile

Based on IER reports the investments of the PFs in terms of concentration by region are summarized and presented in the following chart:



As can be seen from the chart, the majority of the investments of the PF sector are in the local market (Bulgaria). This ranged from 32% to 99% of the total investments in securities per PF. Investments in Western Europe cover as of 30 June 2016, 28% of the total investments in securities of the PF sector (ranging from 1% to 41% of total investments per PF). In terms of individual concentrations, other than the above, one PF invested 41% of its portfolio in Eastern Europe, while another 20% of its portfolio in USA.

### Interest risk

According to the reports of the IER, all the PFs have mainly invested in securities with fixed interest rate, therefore, the interest rate risk has generally been considered by IER as ignorable.

### Liquidity risk

Based on IER reports, below is a summary of the analysis of liquidity of the PFs' total assets:

(in '000 BGN)

Liquidity risk	
Total assets	9.845.372
Maturity ranges:	-
Within 1 month	29%
Between 1 month and not later than 3 months	2%
between 3 months and 6 months	1%
between 6 months and 1 year	3%
between 1 and 2 years	2%
3-5 years	13%
over 5 years	51%
<b>Total</b>	<b>100%</b>

Source R5.1

In general the comments provided by the IER, consider that the PFs have invested mostly in liquid instruments which can be settled in short period of time if needed. For example all collective investment schemes can be liquidated in a month's period, cash on hand is available immediately and bank deposits are available in three months. Apart from that, shares which are traded on the BSE can

be liquidated, according to the IER, in a few months' period. On the other hand, the debt securities are structured so that all corporate bonds have maturity up to 5 years. The major part of the assets: the governmental securities are predominantly with longer maturity above 5 years, while the rest are with shorter than 5 year maturity.

Also, according to certain IER, the long term character of members' savings, the increasing fund membership and pension funds contribution, the low average age and the relatively small number of occasions leading to withdrawal of the accumulated resources, lead to higher cash inflows into the PF compared to the outflows and therefore currently low liquidity needs. According to IER reports, the PFs will develop synchronization of assets policy and strategies once the pension payment schedule has been decided and confirmed by the regulatory bodies.

### Exchange risk

As indicated above, the majority of the assets are denominated in BGN and EURO. Since BGN is pegged to the EURO, the currency risk is considered as ignorable.

An analysis of investments in foreign currencies by PIC is presented earlier in this section. As indicated above, in cases where the PFs have some exposure to the USD, the PFs have policies to cover that risk, either through hedging instruments, or the investments are highly liquid.

### 10.2.3 Related parties

The IER performed procedures to examine whether there were investments of the PF in securities issued by parties that may not qualify as a related party to the PIC under the SIC, but may qualify as a related party under IAS 24.

To this respect, in no case, such a situation was identified, where it was considered by the IER that there is a related party relationship under IAS 24, which did not exist under the definitions of SIC.

In addition, the IER commented also on the differences in the definitions of related parties between IAS 24 and SIC (or the scope of the persons from whom the PF cannot purchase assets) and recommend that the definition of related parties under SIC be expanded to include the related parties defined under IAS 24, in order to eliminate any discrepancies, and monitor under a single definition. Thus, for example, the possibility for the PFs to invest in financial instruments issued by companies controlled or jointly controlled by close members of the families of the key management personnel of the PIC or the parent company of the PIC will be avoided.

Moreover, it was recommended to some PICs to implement procedures for identification of close members of the family of all of the members of the Board of Directors of the PF, the PIC and the parent company of the PIC and subsequent identification of entities controlled or jointly controlled by those persons. Since that kind of information is not publicly available, the IER were not able to perform an independent examination for existence of investments in entities controlled or jointly controlled by such close family members.

The IER were also requested to perform independent procedures to identify related parties that were not reported as such by the PFs. In certain cases, the IER identified exposure in entities related between them (but not to the PIC). The IER made recommendations that the PIC/PF carefully check the issuers of securities for the participation of groups of related parties and to make in-depth analysis for the expected return on investment in such companies. This recommendation was given due to the fact that entities participating in these groups were subject to impairment.

In other cases, given the number of links the IER identified between the PIC and/or a Group and/or its related parties, the IER suggest that the PIC conduct and document more in-depth research into the persons that actually exercise control over the respective issuers. This exercise requires the PIC to request specific detailed documentation from the issuers, including voting records from shareholder meetings, investment records and shareholder and management information. It also entails requesting detailed information from other entities in the Group to establish among other things their shareholding and their investments in the investees. Management and key shareholders should also be requested to provide information about their relatives, and their investments, as defined in the referenced frameworks.

The IER also recommend that the PIC reviews its policy and procedure for assessing and identifying related parties with respect to investments in issuers. This process should include a process for third party integrity vetting consistent with international better practice.

The IER also checked whether there could be differences in the related parties identified arising from the amendments in the definitions for related parties in the SIC that entered into force on 12 August 2016. The IER did not identify circumstances that indicate investments of the PFs in securities, issued by related parties to the respective PIC managing the funds.

In certain cases, the researched entities were significant in number or the structure of the Groups was complex. Given this, there were limitations regarding the identification of possible other related parties than the ones disclosed by the PICs, as identifying a related party requires a far broader set of information to be analysed.

# 11. Appendices

## Appendix I – PFs participating in the PFAR and respective IER

S/N	Pension Fund	Referred to as	Approved IER
1	Doverie Universal Pension Fund	Doverie UPF	PricewaterhouseCoopers Audit OOD
2	Doverie Professional Pension Fund	Doverie PPF	PricewaterhouseCoopers Audit OOD
3	Doverie Voluntary Pension Fund	Doverie VPF	PricewaterhouseCoopers Audit OOD
4	Saglasie Universal Pension Fund	Saglasie UPF	HLB Bulgaria OOD
5	Saglasie Professional Pension Fund	Saglasie PPF	HLB Bulgaria OOD
6	Saglasie Voluntary Pension Fund	Saglasie VPF	HLB Bulgaria OOD
7	DSK - Rodina AD Universal Pension Fund	Rodina UPF	PricewaterhouseCoopers Audit OOD
8	DSK - Rodina AD Professional Pension Fund	Rodina PPF	PricewaterhouseCoopers Audit OOD
9	DSK - Rodina AD Voluntary Pension Fund	Rodina VPF	PricewaterhouseCoopers Audit OOD
10	Allianz Bulgaria Universal Pension Fund	Alianz UPF	PricewaterhouseCoopers Audit OOD
11	Allianz Bulgaria Professional Pension Fund	Alianz PPF	PricewaterhouseCoopers Audit OOD
12	Allianz Bulgaria Voluntary Pension Fund	Alianz VPF	PricewaterhouseCoopers Audit OOD
13	NN Universal Pension Fund	NN UPF	HLB Bulgaria OOD
14	NN Professional Pension Fund	NN PPF	HLB Bulgaria OOD
15	NN Voluntary Pension Fund	NN VPF	HLB Bulgaria OOD
16	CCB-Sila Universal Pension Fund	CCB-Sila UPF	KPMG Audit SRL
17	CCB-Sila Professional Pension Fund	CCB-Sila PPF	KPMG Audit SRL
18	CCB-Sila Voluntary Pension Fund	CCB-Sila VPF	KPMG Audit SRL
19	Badeshte Universal Pension Fund	Badeshte UPF	HLB Bulgaria OOD
20	Badeshte Professional Pension Fund	Badeshte PPF	HLB Bulgaria OOD
21	Badeshte Voluntary Pension Fund	Badeshte VPF	HLB Bulgaria OOD
22	Toplina Universal Pension Fund	Toplina UPF	HLB Bulgaria OOD
23	Toplina Professional Pension Fund	Toplina PPF	HLB Bulgaria OOD
24	Toplina Voluntary Pension Fund	Toplina VPF	HLB Bulgaria OOD
25	Pension Insurance Institute Universal Pension Fund	POI UPF	HLB Bulgaria OOD
26	Pension Insurance Institute Professional Pension Fund	POI PPF	HLB Bulgaria OOD
27	Pension Insurance Institute Voluntary Pension Fund	POI VPF	HLB Bulgaria OOD

## Appendix II – Definitions and abbreviations

Art.:	Article
BD:	Board of directors
BSE:	Bulgarian Stock Exchange
CAPM:	Capital Asset Pricing Model'
CEO:	Chief Executive Officer
CFO:	Chief Financial Officer
DCF:	discounted cash flow
EC:	European Commission
ECB:	European Central Bank
E.g.:	exempli gratia/for example
EIB:	European Investment Bank
EIOPA:	The European Insurance and Occupational Pensions Authority
EU:	European Union
EU MS:	Member States of the European Union
FED:	Federal Reserve
FSC:	Financial Supervision Commission
i.e.:	id est ("it is").
IAS:	'International Accounting Standard
IBSR:	Insurance Balance Sheet Review
IER:	Independent External Reviewers
IFRS:	International Financial Reporting Standards
ISA:	International Standard on Accounting
NAV:	Net asset value
Ord.	Ordinance
P.:	Paragraph
PIC:	Pension Insurance Company
Pls.:	Please
PF:	Pension Fund
PFAR:	Pension Funds' Assets Review Exercise
PM:	Planning Materiality
PMO:	Project Management Office / Project Manager
Q&A:	Questions and Answers
SC:	Steering Committee
SIC:	Social Insurance Code
ST:	Significance Threshold
RA:	Risk Assessment
RT:	Reporting Threshold
TB:	Trial Balance

## Appendix III – Detailed results per PF