Bulgarian Pension Funds Assets Review

Methodology

2016

Contents

1. Introduction

1.1. Background

On 26 February 2016, the European Commission (EC) published its Country Report for Bulgaria for 2016. The report assesses the progress in the execution of Bulgaria-specific recommendations approved by the Council on 14 July 2015[1]. The analysis of EC gave grounds to conclude that there are excessive macroeconomic imbalances in Bulgaria). A part of country specific recommendation (CSR) 2 requires 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) organizes a review of the pension funds' assets with the participation of independent external parties and institutions ("independent external reviewers"/IER) of high professional reputation.

To execute the project, a Steering Committee has been set up in accordance with the National Reform Programme - 2015 update to reach the objectives of Europe 2020 strategy. The review will be overseen by a Steering Committee (SC) that includes representatives from the FSC (member of the SC), the 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 has selected a consultant, hereinafter referred as Project Manager (PMO) that will ensure a harmonised 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 main objectives of the review of the assets of the pension funds are:

a) To verify whether the assets of the pension funds kept by the custodian banks are present;
b) To perform a valuation of the assets in the pension funds' portfolios in accordance with the provisions of Ordinance 9 of the FSC of 19.11.2003on the manner and procedure for evaluation of the assets and liabilities of supplementary pension insurance funds and of the Pension Insurance Company, of the value of net assets of the fund, for calculation and declaration of the value of one unit and for the requirements for maintaining the individual accounts (prom. SG, issue 109 of 16.12.2003, effective 1.07.2004, last amended SG, Issue 107 of 13.12.2013, effective 01.01.2014);
c) 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 pension funds 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;
d) 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;
e) 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.

This methodology describes the procedures to be followed by the IER that will perform the exercise "PFAR" exercise. The methodology describes the <u>minimum</u> procedures to be followed and the reviewers are requested

[1] COUNCIL RECOMMENDATION of 14 July 2015 on the 2015 National Reform Programme of Bulgaria and delivering a Council opinion on the 2015 Convergence Programme of Bulgaria (2015/C 272/08)

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.

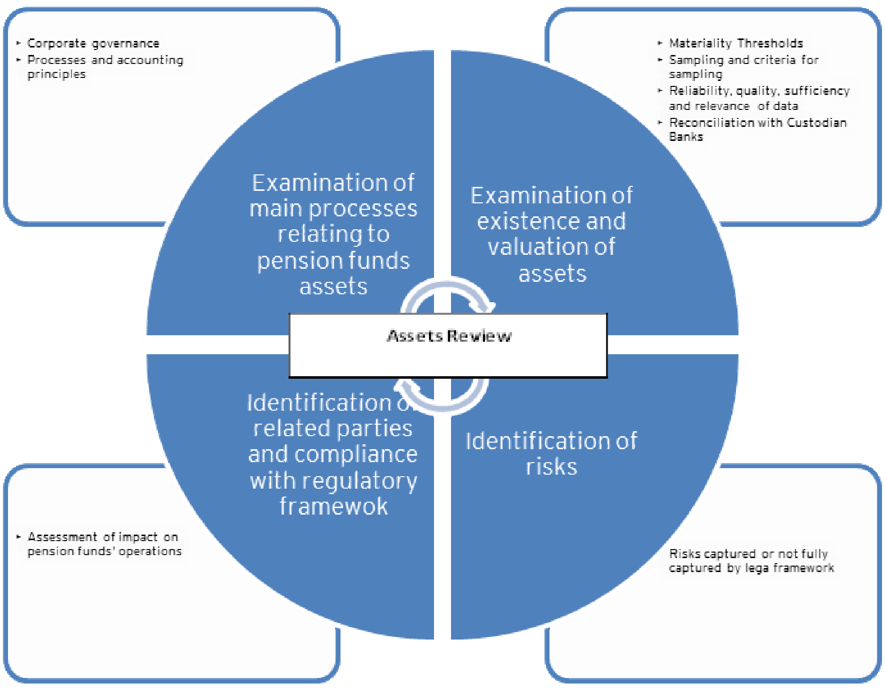
The review covers the universal, professional and voluntary pension funds in Bulgaria. The voluntary pension funds with occupational schemes do not participate in the review.

1.2. Overview

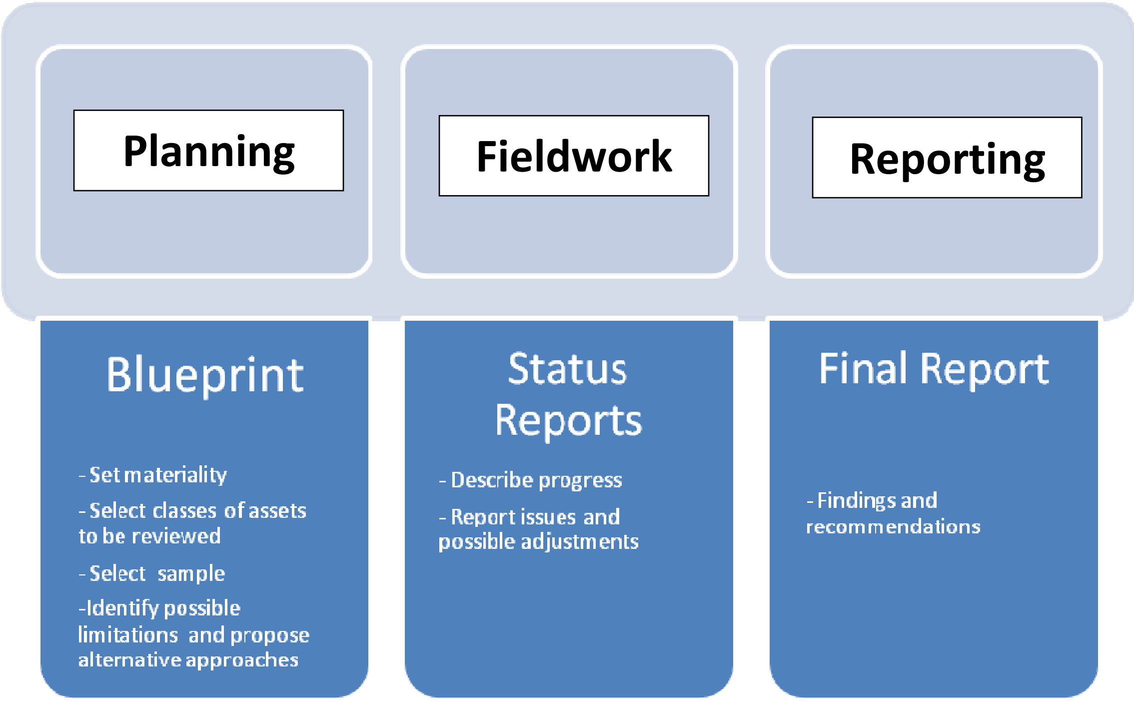
The methodology describes the scope of the review and the methods and techniques which are deemed as relevant for the review of pension funds' assets, as presented below more in-depth.
Specifically, the methodology covers:

- determination of materiality thresholds and criteria for determining assets to be reviewed, substantial portfolios of assets and exposures, sample size;
- review of reconciliations to the assets kept by the custodian banks;
- review of the availability (existence) of pension funds' assets as at 30 June 2016;
- performing data checks to cover reliability, quality, sufficiency and relevance of data;
- providing comments on the appropriateness of the accounting principles and methodologies used by the participating pension companies;
- providing comments on the appropriateness of the system of corporate governance, including the internal control mechanisms in place and its compliance with the legal framework;
- identification and assessment of the main internal processes relating to pension funds' assets;
- review of valuation of pension funds' assets as at 30 June 2016;
- identification of investments in securities issued by parties related to PIC managing the fund and assessment of the impact on the pension funds' operations;
- review of risks 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;
- views on improvement of the regulatory framework to capture and address such risks.

The methodology will cover the following main work blocks:



The exercise is structured in 3 main phases, as follows:



1.3. Key Tools

The PFAR will make use of several types of tools that are specific to a particular phase of the PFAR:

- Templates: these will be provided in this Manual for population by the IER and used to deliver information and final results to the PMO and the SC and PIC.

Templates

Output deliverables			
PFAR phase	Reference	Description	When
Planning	R1 Blueprint	To describe the working plan proposed by the IER for completing the Pension Funds' Assets Review	14 days from the starting date of the review. The date of issuance of the act of the FSC/ the Deputy Chairperson in charge of Social Insurance Supervision Division for appointment of the IER is the official starting date of review.
Planning	R2 Materiality	To compute materiality and select assets to be reviewed	To be included as Appendix to the Blueprint
Fieldwork	R3 Status reports	To inform the PMO about the status of completion of work of IER, main findings and recommendations, proposed adjustments, potential delays and proposed corrective actions, as well as any other issues encountered	Twice per month, exact dates shall be communicated by the PMO to the IER
Fieldwork	R4 Proposed adjustments	To present proposed adjustments	Twice per month, together with R3 and at the end of the exercise together with R5
Reporting	R5 Final report	To describe results of the IER work	Draft on 30th September 2016. Final

			on 14th October 2016.

Requests for clarification regarding methodology

IER will be able to submit their questions in a consolidated manner (max one email on Monday and Wednesday) to the dedicated mailbox: georgiev_a@fsc.bg

PMO will answer directly to the IER and circulate the Q&A log answers (listing all questions and replies) to all IER on a regular basis (typically once per week or sooner for critical or high priority) through email.

1.4. Definitions

PFAR:	Pension Funds' Assets Review Exercise
ISA:	International Standard on Accounting
PIC:	Pension Insurance Company
PF:	Pension Fund
PM:	Planning Materiality
PMO:	Project Management Office / Project Manager
ST:	Significance Threshold
RT:	Reporting Threshold
TB:	Trial Balance
PF:	Pension Fund
IER:	Independent External Reviewers
RA:	Risk Assessment
CSR:	Country Specific Recommendation
Account:	Separate Type of assets as presented in section 4.1

1.5. Main assumptions and parameters

1.5.1. Reference date

The reference date for the PFAR exercise is 30 June 2016.

1.5.2. Applicable framework

During the performance of the review of pension funds' assets, the relevant regulatory framework shall apply and in particular:

- The Social Security Code;
- Ordinance No 9 of the FSC;
- Ordinance No 29 of the FSC;
- Accounting Act.

- Ordinance No 36 of the Bulgarian National Bank on the custodian banks pursuant to the Social Insurance Code

The IER shall consider the applicable legal framework and the applicable International Standards on Auditing ("ISA") for the performance of the review of the financial information.

1.5.3. Materiality

The materiality concept is defined in accordance with ISA320 "Materiality in Planning and Performing an Audit", by the magnitude of an omission or misstatement that, individually or in the aggregate, in light of the surrounding circumstances, could reasonably be expected to influence the economic decisions of the users of the results of the PFAR exercise.

The concept of **Planning Materiality** ("PM") will be applied in: (i) planning and performing the procedures, (ii) in evaluating the effect of identified misstatements and (iii) in forming the final conclusion. More specifically, during the planning stage, as described in section 4.1, the PM is applied to determine which asset classes (line items on balance sheet) will be subject to review.

The **Significance Threshold** ("ST") is determined to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds PM. ST is used during the process of sample selection as described in section 1.5.4. ST will also be used as an estimate of undetected misstatements within the pension funds' assets in order to conclude on uncorrected misstatements.

In addition to determining PM and ST, **Reporting Threshold** ("RT") will also be determined. RT is the amount below which identified misstatements are considered clearly trivial. Any differences above RT, should be reported by the IER.

For the purposes of the specific project the focus of the exercise will be on pension funds' assets. The purpose of the review is the examination of the existence and valuation of the pension funds' assets. Therefore since the focus of users in the context of this exercise is on assets, it is considered that the most appropriate basis for the calculation of the materiality is based on assets. Therefore Materiality will be based on total assets as follows:

Table XX: Materiality

PFAR phase	Reference	Measurement basis/ Percentage	Scope
Planning	Planning Materiality ("PM")	1% Total assets	To select asset classes to be reviewed by the IER. To evaluate the effect of identified misstatements. The following shall be reviewed, irrespective of materiality: financial instruments, investment properties and balances with related parties.
Performing procedures	Significance Threshold ("ST")	50% PM	Refer to section 1.5.4 "Sampling and criteria for selection" below
Reporting	Reporting Threshold ("RT")	5% PM	To report proposed adjustments (below this amount the adjustments are

			clearly trivial and will not be reported as findings in the final report).

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.

In order to ensure consistency for the whole sector the IER should follow the approach defined in the methodology. In the extreme case that the IER consider that it is more appropriate to use a different approach, they are expected to provide their rationale on the selected approach to determining PM, ST and RT and explain in detail any exceptions to the above approach. Before implementing a different approach, the IER need to obtain the consent of the PMO. The materiality will be subject to review, and where considered appropriate based on the information provided and in consultation with the IER, may be amended.

To ensure consistency the PMO will review those judgments and ask the IER to amend their sample if deemed necessary (e.g. if IER of one fund identifies risk, which is also present in other funds but is not specifically identified by their IER).

1.5.4. Sampling and criteria for selection

After identification of the asset classes that will be subject to review, on the basis of PM, as defined in section 1.5.3 and as explained in section 4.1, the IER will apply the guidance in this section to determine the specific assets that will be reviewed, in accordance with the sampling and criteria for selection set out below.

In accordance with ISA 530, "*Audit sampling can be applied using either non-statistical or statistical sampling approaches.*"

Sampling will be used to obtain sufficient appropriate evidence using tests of controls or tests of details. Sampling techniques help determine the number of items from a population to test and how to select the items on which to apply the required procedures. The purpose of sampling is to draw inferences about the entire population from the results of a sample. The IER should follow the approach defined below and exercise judgment in identifying methods to:

- Define the population
- Determine statistical sample size
- Determine judgmental sample size
- Choose sample selection methods

For the purpose of this exercise, the following sampling approaches are permitted, if not instructed differently in the specific section:

a. Non-statistical – selection of items to ensure a specific coverage (requested for the PFAR 90% of the value of each class of assets selected for review; based on a high level analysis of the pension fund assets it was determined that the 90% threshold provides a sufficient coverage across the sector). No extrapolation of findings shall be performed.
b. Statistical – top 10 items to be selected and for the rest of the exposure apply Monetary Unit Sampling[2] (MUS) method as defined in ISA 530. Allows extrapolation.

[2] ISA 530 Appendix 4 (c) Monetary Unit Sampling is a type of value-weighted selection (as described in Appendix 1) in which sample size, selection and evaluation results in a conclusion in monetary amounts.

The IER should select the sampling method considered the most appropriate in order to form a conclusion concerning the population from which the sample is drawn. In the extreme case that the IER consider that it is more appropriate to use a different approach than this described above, they are expected to provide their rationale on the selected sampling approach and explain in detail any exceptions to the above approach. Before implementing a different approach, the IER need to obtain the consent of the PMO.

The sample size using MUS shall be determined based on the following factors:
- The Risk Assessment (“RA”) associated to the asset (refers to balance-sheet items) under review.
- The RA of the investment portfolio should be performed per type of financial instrument.
- The coverage of key items expressed as % from the total balance of the population tested for the respective procedure. The key items will be set according to the professional judgment of the IER, however the maximum level will be set at ST. The top 10 exposures will be included in the key items.

The RA shall be assessed by the reviewer based on its professional judgment considering the control environment appropriateness and the inherent risk associated for each asset (in terms of balance-sheet section) selected to be tested. The investments existence and valuation are deemed to have high inherent risk. The reviewer shall explain in detail the consideration for each section.
  - The sample selection especially for financial instruments should be done on the basis of type of financial instruments as included in section 4.1 below

The following combinations are possible:

Risk Assessment	Control environment appropriate (yes/no)	Inherent risk (High/Low)
Low Risk	yes	Low
Moderate Risk	yes	High
Moderate Risk	no	Low
High Risk	no	High

RA	Key item coverage						
	0%	10%	30%	50%	70%	90%	100%
LOW RISK	1	0.9	0.7	0.3	•	•	•
MEDIUM RISK	2.1	2	1.7	1.4	0.9	•	•
HIGH RISK	3	2.9	2.6	2.3	1.8	0.7	•
• Indicates that no representative sample is required at this combination of key item coverage as sufficient appropriate audit evidence has been obtained to maintain audit risk at the appropriate level							

The following steps will be used to determine the sample:
1) Find the intersection of key item coverage and RA to determine the sample size factor
2) Compute the base sample size by dividing the BGN amount of the population, excluding key items, by ST
3) Multiply the sample size factor determined in step 1 by the base sample size determined in step 2 to arrive at the required representative sample
4) Determine the sampling interval as the total amount of the population to be tested (amount of the population excluding key items) divided to the sample size

We included below an example for computation in order to illustrate the computation:

Assume:

- We determined that our RA is Low Risk
- We have no key items (0% key item coverage)
- The balance of population under testing is BGN 10 million and the ST is BGN 500,000.

This would result in a base sample size of 20 (BGN 10,000,000 account balance/BGN500,000 ST).

Multiply the base sample size of 20 times the factor of 1 for 'Low Risk' assessment. This would result in a representative sample of 20 items.
In this case, since we are using MUS we use systematic sample selection to select our sample. In this example, we use a sampling interval of BGN500,000 which is calculated as follows:
BGN 500,000 = (10,000,000 – 0)/20
We then select a random number between BGN 1 and BGN 500,000 as our random starting point (selected randomly), in this case, BGN 1,053. The first item selected is BGN 1,053st leva, then BGN 501,053th leva (BGN 500,000 sampling interval plus BGN 1,053) is selected, and then every succeeding BGN 500,000 are selected until the entire population has been subject to sampling.

During the communication with the PMO, the reviewers are requested to clearly describe the following:

1. Blueprint – the sampling method to be used for each PF account (type of investment or other balance sheet item)
2. Status report – the size of the sample per each PF account together with a brief description of the inputs affecting the sample size, as well as any deviations from the Blueprint, if the case with justification
3. Conclusion report – the sampling method and size of the sample

1.5.5. Subsequent events

Throughout the PFAR review, the IER should consider any subsequent events relevant to the analysis performed, including sale of the respective asset, application of supervisory measures or provision of recommendations by the FSC or any other relevant information as applicable. Subsequent events should be included in the final report (R5) together with an analysis of their impact over findings on all areas under review (not directly in the adjusted assets value at the reference date).

2. Corporate Governance, processes and internal control framework, accounting policies

2.1. Corporate Governance System

The requirements on the system of governance are aimed at providing for sound and prudent management of the business. According to the legal framework, the obligations of the PIC in relation to the valuation of the assets and liabilities of a supplementary PF are as follows:

i) the managing bodies of the PIC shall adopt and submit for approval to the Deputy Chairperson of the Financial Supervision Commission in charge of the Social Insurance Supervision Division the rules for valuation of the assets and liabilities of the PIC and of the supplementary PF managed thereby.

ii) the PIC shall notify the Financial Supervision Commission of the accounting policy applied. In the event of change in the applicable policy, the PIC shall notify the Commission of the new policy within 7 days of its adoption by the requisite procedure.

iii) the PIC shall establish a specialized internal controls unit whereof the management shall be appointed and dismissed by the managing bodies of the companies. The head of the specialised internal control department shall appoint an officer from the department who shall monitor the compliance with the Ordinance 9.

iv) The PIC shall keep on paper-basis and electronic medium the information on prices and their sources used as a basis for valuating the assets and liabilities for a period at least 5 years.

2.2. Processes and internal control framework

According to ISA 315 "Identifying and assessing the risks of material misstatement through understanding the entity and its environment", the internal control mechanisms expected to be in place, encompass the following components:

- control environment;
- management's risk assessment process;
- control activities and monitoring of controls;
- information and communication process;
- IT processes.

The PIC are expected to have in place an internal control framework commensurate to the risks arising from the activities and processes to be controlled. Significant processes which are expected to be in place by the PIC, and for which understanding and testing of controls is required by the IER, include at a minimum:

- 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;
- valuation of pension funds' assets.

2.3. Accounting policies

The PIC should have 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.

The focus of this review will be on aspects such as the recognition, existence and measurement of pension fund assets.

2.4. Independent external reviewers' Procedures

Corporate Governance System

- Review that the requirements of Ordinance 9 for communication to and obtaining the approval of the Financial Supervision Commission as regards items mentioned in 2.1 above (e.g. policies for valuation of assets, and any changes in accounting policies) have been adhered to;
- Consider whether the PIC has put in place an internal control department, and is monitoring compliance with requirements of Ordinance 9 and comment on the sufficiency of this procedure;
- Confirm whether the PIC maintains information on prices and their sources used as a basis for valuating the assets as required by the Ordinance.

Processes and internal control framework

The IER are required to review the main processes that affect the pension funds' assets. In particular the procedures that should be performed include:

- Understanding of the PIC main processes from the initiation to recording and measurement (at a minimum as described in section 2.2) that affect the assets of PF exceeding the significance threshold as calculated based on the instructions at section 1.5.3 and walkthrough of these procedures;
- Identification and, in some cases, testing of the relevant key controls (including application controls if appropriate) and report on deficiencies of design or operation of controls that could prevent or detect

material errors or omissions.

The procedures that will be designed by the IER should at a minimum refer to the identification and testing of entity level controls which involves the understanding of how the entity's internal control operates at the entity level in relation to (a) control environment, (b) management's risk assessment process, (c) monitoring of controls, (d) information and communication process), (e) IT processes.

In addition, the IER should perform the following:

- Consider whether management has a formal process for performing a risk assessment; the independent reviewer should describe this process and outline the key risks identified by management;
- Receive an analysis and documentation of the risks relating to the pension funds' assets and identification of the accounts (type of financial assets or other assets) and respective balance sheet accounts that are affected by these risks as identified by the management of the pension insurance companies;

  Comment on the adequacy of the PIC's risk assessment process and the related controls applied to mitigate those risks;
- Review the investment policy approved by the management body of the PIC, review the investment schedule against the approved investment policy with a view to report any deviations observed.

Accounting policies

- Review the main accounting policies of the PIC and examine whether they are in compliance with the applicable accounting framework.
- The review of the accounting policies should be centered on ensuring that the PIC has for each pension fund 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.
- The review of processes and accounting policies is aimed to evaluate the degree of relevance of the principles for recognition and valuation applied for pension funds' assets as well as compliance with applicable laws and regulations and should be focused on aspects such as, but not limited to:
  - The availability and assessment of assets.
  - Documentation of the procedures followed by the PIC to prepare the "Statement of Assets of Pension Funds". The PIC should prepare a Statement of Assets of PF as at 30 June 2016 and provide this to the IER for the purpose of the review exercise. The list of assets that must be reviewed must be determined by the IER based on the methodology provided under sections 1.5.3 -1.5.4.
  - Reviewing compliance with the applicable laws and regulations in the areas within the scope of the review.

Output

- **Findings / Exceptions identified from performance of each of the procedures outlined above for each of the areas: Corporate Governance, Internal Control and Processes and Accounting Policies**
- **Conclusion on the appropriateness of the system of governance including the internal control mechanisms in place, the accounting policies and methodologies used and the risk assessment/control environment process.**

3. Reliability, quality, sufficiency and relevance of data

The IER should obtain from the pension funds 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 should perform the following procedures:

- ensure the data is used consistently over time in the valuation of assets;
- ensure the data is consistent with the purposes for which it will be used;
- ensure that the amount and nature of the data ensure that the estimations made (on the basis of the data) do not include a material estimation error;
- ensure the data appropriately reflect the risks to which each Pension Fund is exposed with regard to its obligations;
- check for duplication of unique ISIN fields;
- check that the investments portfolio does not include securities with expired date;
- check that the fields expected to have positive value are not negative and vice versa (e.g investment properties);
- check how is treated the coupon rate of all bonds securities;
- check 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 PIC may consider in arriving at estimates of fair value when transactions for a specific security (or similar securities) are not readily observable).
- check that the currency data is available for the foreign securities;
- in general ensure that the medium of keeping the information on prices and their sources used as a basis for valuating the assets, is appropriate and in line with the requirements of Ordinance 9.
- If data inconsistency/insufficiency is identified the IER shall request additional information in order to be able to quantity on the impact or valuation of assets as well as consider these items in the reporting of risks to the PMO , exercising professional judgment the IER should consider the need to extent the sample size.

Output:

- **Findings and recommendations**
- **Assessment of impact on PFAR procedures for relevant sections (the reviewer should conclude whether data quality is sufficient for performing the needed procedures, request additional information or propose remedial action).**
- **If any inconsistencies are noted the effect should be quantified and reported including by means of adjustment of the assets' values**

4. Pension Funds' Assets Review

4.1. Selection of assets on the balance sheet to be reviewed

For the selection of assets to be reviewed, the IER should first identify the classes of assets by applying the procedures described in section 1.5.3, using the concept of PM. The notion of materiality, for the purposes of this review, does not apply to financial instruments and investment properties. These classes of assets are subject to review irrespective. For all other asset classes the guidance in 1.5.3 should be applied. If, however, an asset class is excluded due to materiality, but within that asset class there are holdings in related undertakings, these holdings in related undertakings shall be reviewed irrespective.

As a second step the IER will determine the specific assets (within the class) that will be reviewed in accordance sampling criteria, as described in section 1.5.4.

Illustrative example

A. to identify the classes of assets to be reviewed:

Balance Sheet		Caption>1% Total assets?	Selected for review procedures
	………………………………		
	Cash and cash equivalents		
	Cash	No	No
	Cash equivalents	Yes	Yes
	Bank Deposits	Yes	Yes
	Investments		
	Securities guaranteed by the government	Yes	Yes
	Securities traded on regulated securities markets	Yes	Yes
	Municipal bonds	No	Yes
	Mortgage bonds	Yes	Yes
	Foreign investments	Yes	Yes
	Investment properties	Yes	Yes
	Other Assets	No	No
	Other receivables (investment receivables, refer to section 4.2.4)	No	No
	…………….		

As already described above, professional judgment is required in assessing risk and hence, excluded classes of assets may be included in the review where considered appropriate by the reviewer. In addition the IER should consider the inclusion in scope of liabilities that may relate directly to a specific asset, e.g. repo transactions.

B. To identify the assets within the class to be reviewed

For each class of assets selected above, the IER should refer to the sampling guidance in section 1.5.4. for selecting specific assets on which the procedures described below will be applied. The example in section 1.5.4 can be used to this respect.

Output:

- **R2 (presenting materiality and selected assets and liabilities) to be included as Appendix to the Blueprint.**
- **Following the review of the R2, the FSC may request the reviewer to include other assets or liabilities in the scope of the exercise, based on their knowledge of the market.**

4.2. Procedures to be performed

The review of the pension funds' assets will be performed based on the specific methodology as outlined below. This methodology will require that the IER follow specific procedures per each category of the pension funds' assets in order to examine the availability and valuation of these assets.

The main categories of the pension funds' assets are:
- Financial instruments (mainly debt securities investments and equity investments)
- Bank deposits
- Investment properties
- Other

4.2.1. Financial Instruments

(A) Existence of financial instruments

The following procedures should be performed:

- Request from the (PIC) to prepare and submit a confirmation letter to the custodian bank asking to verify the existence and the ownership of the investment portfolio's units as at 30 June 2016. The investment analysis of the custodian bank confirmation letter should refer to: (a) the number of investments' units, (b) the ISIN, (c) the face value of the investments, (d) the currency, (e) accrued interest income. The reply confirmation letter should be submitted by the custodian bank to the IER directly.

- Request from the undertaking their reconciliation of the investments portfolio analysis per pension fund with the general ledger of pension funds (Trial Balance) as at 30 June 2016. Investigate and comment on any material differences identified between the investments portfolio analysis and the Trial Balance.

- Verify whether the data maintained by the (PIC) for the pension funds' assets conform to the data about these assets in the registers run by their custodian banks. Reconcile all data, such as the number of investments' units, the ISIN, the face value, the currency, and the accrued interest income between the investments portfolio analysis per pension fund and the custodian confirmation letter. Investigate and comment on any material differences identified between the custodian bank confirmation letter and the investments portfolio analysis.

- Confirm 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. Obtain the custodian bank's statement of the acquisitions and sales transactions of securities of each individual pension fund performed during the current period (1.1.2016 – 30.6.2016) and verify that the pension funds' securities are monitored in separate ledgers from the custodian bank's own assets and the assets attracted by other clients. Ensure that the extract of the investments portfolio attached to the custodian bank confirmation letter refers to the specific pension funds' investments only.

- Select a sample of purchases of financial instruments for the period 01/01-30/06/2016 and receive the relative trade tickets, security description and other documentation related to these purchases and reconcile the information of the purchases to the investments portfolio analysis and verify that the financial instruments are owned by the pension fund.

- Verify whether the manner in which the specialised depositary 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.

- Check 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. Confirm 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.

- Check whether the respective custodian bank is included in the list of the authorized custodian banks of PF.

- Obtain a complete list of bank accounts (debit and credit balances) of the pension fund. Obtain, 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, guaranteed amounts, etc.

- For voluntary pension funds, perform surprise cash count on cash and post-dated checks, if considered necessary. In case the count will not be done as of 30 June 2016, perform roll-back procedures and subsequent settlement procedures.

- Perform Analytical Review Procedures in the investments portfolio as at 30 June 2016 in comparison to the balances of 31 December 2015 and provide explanations on large items identified.

Output

- **Report comments, findings and recommendations on each above procedures (R5.1, Investments output report.xlsx, w/s 1);**
- **Describe the sample selection for testing per category of financial instruments.**

(B) Valuation of financial instruments

For the valuation of the financial instruments, the IER should select a sample (based on the selection criteria for the sample analysed in section 1.5.4) to cover at least 90% of each category of the financial instruments and review the appropriate valuation.

The procedures outlined below should be performed for the valuation of the financial instruments in the selected sample from the PF portfolios, with the purpose of ensuring conformity with the requirements of the applicable regulatory framework (Ordinance 9 of the FSC of 19.11.2003). Based on the general requirements of Ordinance 9, the following procedures should be performed:

- Obtain the breakdown analysis of investments as of 30 June 2016 and check 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).

- Verify the key sources of price information used, as received by the primary dealers of government securities, newsletters of regulated markets, electronic quoting systems (Reuters, Bloomberg, etc.) and other official sources.

- Where the primary method for valuation of the respective asset prescribed by Ordinance 9 (mark-to-market price) cannot be applied, the IER should describe the exception and comment whether there were grounds for switching to valuation according to a method specified in Ordinance 9. Where the valuation is done by reference to comparable prices method – comment on the underlying securities being used and their comparability to the security under valuation.
- In accordance with the applicable regulatory framework, 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), the subsequent valuation may be performed by PICs using a detailed, substantiated and documented procedure and manner, in keeping with the precautionary principle. Where this is the case, the IER should describe the exception and explain in detail the approach used for the valuation.
- The IER should also comment on why it was impossible to apply the procedures and evaluation methods prescribed by Ordinance 9 (taking into account the guidance on fair value per IFRS – refer to Appendix 9.2 – section 1 – Fair Value Measurement) and comment whether the approach applied by the pension insurance company managing the pension fund is appropriate in the circumstances. For the assessment of the methods the IER should refer to the fair value hierarchy guidance of IFRS, and also to the guidance on valuation techniques and inputs (refer to Appendix 9.2 – section 2 – Valuation Techniques and section 5 – Fair Value Hierarchy), to consider whether the methodology and inputs used are appropriate.

- Where (further to the above procedures), deviations to the valuation method selected are identified, the IER should quantify the effect, to the extent possible.

- In cases where a valuation technique is used by the Pension Fund, the IER should review, other than the methodology, as explained above, also the inputs used and comment on their reasonability, having performed a comparison of inputs with available market data (refer to Appendix 9.2 – 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, the IER should understand and comment 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, the IER should quantify the effect of taking the close price for the valuation.

- In cases where the “highest bid” price valid at the end of the trading session is used, the IER shall provide his view about if it is indeed an executable quote and not just an indicative quote.

The specific requirements of Ordinance 9 for valuing each main category of investment should be considered in testing the valuation of the selected items, as follows:

1. For **locally issued government securities (art. 176, par. 1, item 1 of the SIC)**:
   a. the average price of each issue on the secondary interbank market on 30 June 2016. The average price of an issue shall be formed as the arithmetic average of the buying and selling prices, announced by three or more primary dealers of government securities

and determined in a manner consistent with the rules for valuation of the assets and liabilities of the PIC and of the pension funds it manages (rules for asset valuation) – Art. 5, par. 1 of Ordinance 9;

b. Where this manner of valuation is inapplicable, the comparable prices method shall be used for securities with similar terms of payment and maturity or other generally accepted methods provided for in the rules for asset valuation - Art. 5, par. 3 of Ordinance 9.

2. For **bonds admitted to trading on a regulated securities market** (i.e. municipal bonds, mortgage bonds, infrastructure bonds and other corporate bonds admitted on the Bulgarian regulated market) **(art. 176, par. 1, item 4, 6-8 of the SIC)**:
   a. the valuation shall be carried out on the basis of the weighted average net price from transactions concluded therewith on 30 June 2016 (day "T"), and published in the stock exchange bulletin, to which the interest coupon due on the valuation date, published in the stock exchange bulletin on day "T - 2" shall be added, provided that the volume of daily trades therewith is no less than 3 per cent of the volume of the respective issue. (Art. 7, par. 1 of Ordinance 9);
   b. Where a price cannot be determined as previous method, the subsequent valuation shall be carried out based on the highest "buy" net price of orders for securities of the respective issue valid at the end of the trading session on the stock exchange on 30 June 2016 (day "T"), to which the interest coupon due on the valuation date, published in the stock exchange bulletin on day "T - 2" shall be added, provided that the total net value of orders with the highest buying price is no less than BGN 30,000. (Art. 7, par. 2 of Ordinance 9);
   c. Otherwise, the discounted cash flows method should be used or another suitable method, specified in the rules for asset valuation. (Art. 7, par. 4 of the Ordinance 9).

3. For **bonds** not admitted and not traded on regulated securities market (i.e. municipal bonds, infrastructure bonds and secured bonds not yet admitted to trade on a regulated market) **(art. 176, par. 1, item 4, 7 and 9 of the SIC)**, the discounted cash flows method is used or acc. to another suitable method set in the rules for asset valuation. (Art. 7, par. 5 of Ordinance 9)

4. For **shares and rights admitted to trading** on a regulated securities market (**art. 176, par. 1, item 2 and 3 of the SIC)**:
   a. valuation shall be carried out on the basis of the weighted average price of transactions concluded therewith on 30 June 2016, that has been announced in the stock exchange bulletin *if the volume of daily transactions therewith is no less than 0,01 per cent of the volume of the respective issue (*Art. 6, par. 1 of Ordinance 9).
   b. Where the price cannot be determined acc. to a), the value of shares and rights shall be 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. The price shall be determined in this manner only where transactions have been concluded and orders placed with buying price (Art. 6, par. 2 of Ordinance 9).
   c. In case no transactions have been concluded on 30 June 2016 with securities from the respective issue, the highest buy price from the orders valid at the end of the trading session on the stock exchange on the same day (Art. 6, par. 3 of Ordinance 9).
   d. Where the manners of valuation acc. to a), b) and c) cannot be applied, the valuation shall be carried out using one of the following methods and models, described in the rules for asset valuation (Art. 6, par. 4 of Ordinance 9):
      - the method of market multiples of analogous companies, using the model of market multiples of an analogous company;
      - the method of the net book value of assets by using the model of the net book value of assets;
      - the method of discounted cash flows using:
        - the model of discounted cash flows of equity;

- the model of discounted cash flows of the company; or
- the model of discounted dividends.

e. Where the previous methods cannot be applied, the valuation of rights shall be carried out using a suitable model for valuation of rights, specified in the rules for asset valuation (Art. 6, par. 5 of Ordinance 9).

5. For **foreign shares and rights admitted to trading** on a regulated securities market **(art. 176, par. 1, item 12, letter. "c" and item 13, letter "c" of the SIC)**:
   a. Valuation shall be carried out using the 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 *(*Art. 7a, par. 4 of Ordinance 9).
   b. Where a price cannot be determined acc. to the previous method, the subsequent valuation of securities shall be carried out based on the highest buying price, published for 30 June 2016 at the time of closing of the regulated market on which they are traded.
   c. Where this procedure cannot be applied either, the subsequent valuation of the specific type of securities shall be carried out in accordance with the procedure set out in item 4, d) and e) above*(*Art. 7a, par. 5 of Ordinance 9).

6. For **foreign shares and/or units issued by a collective investment scheme (art. 176, par. 1, item 14 of the SIC)**:
   a. valuation of shares, respectively units shall be carried out using the last repurchase price, determined and published by 12 p.m. Bulgarian time on the valuation date *(*Art. 7a, par. 6 of Ordinance 9).
   b. In the events of temporary suspension of the repurchase of shares - respectively, units - their valuation shall be carried out using either their last determined and published repurchase price, or their fair value, determined using the method of the net book value of assets in accordance with the most recent announced balance sheet of the collective investment scheme, whichever of these two amounts is calculated on the basis of the most up-to-date information on the net assets of the scheme. Outside these cases, where the rules of a collective investment scheme envisage certain conditions, under which no repurchase of shares, respectively units, is carried out, their valuation shall be carried out using the most recent determined and published net value of assets per share, respectively per unit *(*Art. 7a, par. 7 of Ordinance 9).
   c. Outside the cases referred to in b), where the rules of a collective investment scheme envisage certain conditions, under which no repurchase of shares, respectively units, is carried out, the valuation of shares - respectively, units - shall be carried out using the last net asset price per share, respectively unit, determined and published by 12 p.m. Bulgarian time on the valuation date *(*Art. 7a, par 8 of Ordinance 9)

7. For **shares and/or units issued by collective investment schemes (art. 176, par. 1, item 10 of the SIC)**:
   a. the last repurchase price as determined and published by 12 p.m. on the valuation date *(*Art. 6, par. 6 of Ordinance 9).
   b. In the events where the statutory minimum amount of the net value of assets of a contractual fund is not reached, the valuation of the units issued thereby shall be carried out using the latest issue value of one unit, determined and published by 12 p.m. in the valuation date, minus the issue and repurchase costs per unit, envisaged in the rules of the contractual fund *(*Art. 6, par. 7 of Ordinance 9).
   c. In the events of temporary suspension of the repurchase of shares - respectively, units - their valuation shall be carried out using either their last determined and published repurchase price, or the fair value of one share - respectively, one unit - determined using the method of the net book value of assets in accordance with the most recent balance sheet of the collective investment scheme, entered in the public register of the Financial Supervision Commission, whichever of these two amounts is calculated on the basis of the most up-to-date information on the net assets of the scheme *(*Art. 6, par. 8 of Ordinance 9).

8. For **debt securities pursuant to Art. 176, par. 1, item 7, item 11, item 12, “a” and “b” and item 13, “a” and “b” of the SIC**:
    a. valuations of bonds issued by the Bulgarian government abroad, bonds under Article 176, par.1, item 7 of the Social Insurance Code , admitted to trading on a regulated securities market, and securities under Article 176, par 1, item 11, item 12, letters "a" and "b", and item 13, letters "a" and "b", of the Social Insurance Code, shall be carried out using the last price of a transaction concluded therewith on 30 June 2016, published in the electronic system for information on the price of financial instruments. Where a net price of bonds is published, the subsequent valuation shall be carried out by adding to this price the interest coupon due as at the valuation date *(*Art. 7a, par. 1 of Ordinance 9).
    b. Where the price cannot be determined acc. to a), the valuation shall be carried out using the last bid price on 30 June 2016 as announced in an electronic system for price information for the financial instruments. When a net price of bonds is announced, then the due interest coupon should be added in the price *(*Art. 7a, par. 2 of Ordinance 9).
    c. Where the manner of valuation acc. to a) and b) cannot be applied, the comparable prices method shall be used for securities with similar terms of payment and maturity or other generally accepted methods provided for in the rules for asset valuation *(*Art. 7a, par. 3 of Ordinance 9).

9. For **derivatives (art. 179b of the SIC)**:
    a. Futures shall be valued at the settlement price of the futures for 30 June 2016, published by the corresponding regulated securities market on which they are traded (Art. 10a, par 1 of Ordinance 9).
    b. Options shall be valued using the last price of a transaction concluded therewith for 30 June 2016 at the time of closing of the regulated market on which they are traded (Art. 10a, par 2 of Ordinance 9).
    c. c. Where the manner of valuation as per a) or b) cannot be applied, the valuation shall be carried out using generally accepted suitable valuation methods provided for in the rules (Art. 10a, par 3 of the Ordinance 9) for asset valuation. Foreign exchange forward contracts and interest swap contracts shall be valued at the contract price announced by the contractor for the day, to which the valuation relates (Art. 10a, par 4 of Ordinance 9);
    d. e. Where the manner of valuation acc. to d) cannot be applied, the valuation of foreign exchange forward contracts and interest swap contracts shall be carried out using generally accepted suitable valuation methods provided for in the rules for asset valuation (Art. 10a, par 5 of Ordinance 9).

References to the relevant IFRS guidance, and more specifically to IFRS 13, which should be used during the performance of the above procedures, are included in Appendix 9.2 of this manual.

Output

- **Report comments, findings and recommendations on each of above procedures, including an analysis of the value of investments by category valued under different methods (use the R5.1 Investments output report.xlsx, w/s 2 for documenting such procedures);**
- **Describe the sample selection for testing per category of financial instruments;**
- **Describe the exceptions identified from review of the valuation methodology of instruments, compared to the requirements of Ordinance 9;**
- **Comment on the reasonability of assumptions used for the valuation, where the market value is not used;**
- **Quantify the differences of any exceptions.**

4.2.2. Bank deposits and cash equivalents

For **<u>Bank deposits, cash in hand and cash on checking accounts (art. 176, par.1, item 5 of the SIC):</u>**

a. Bank deposits - by their nominal value and the accrued interest due as at the date to which the valuation relates (Art. 8, par. 1 of Ordinance 9);
b. Cash in hand - by nominal value (Art. 8, par. 2 of Ordinance 9);
c. Cash on checking accounts - by nominal value (Art. 8, par. 3 of Ordinance 9);

Valuation of cash and cash equivalents in foreign currency shall be recalculated in BGN equivalent based on the central exchange rate of the Bulgarian National Bank (BNB) valid for the day for which the valuation applies (30 June 2016).

Output

- **Report comments, findings and recommendations on each of above procedures;**
- **Describe the sample selection for testing;**
- **Describe the exceptions identified from review of the valuation methodology, compared to the requirements of Ordinance 9;**
- **Quantify the differences of any exceptions.**

4.2.3. Investment Properties

<u>Existence and Valuation of investment properties</u>

The IER shall review the application of the policies regarding the recognition and valuation of investment properties of the fund to ensure compliance with the applicable framework.

Specifically, the following procedures should be performed:

- Examine whether, after initial acquisition, the investment property is measured at fair value as required by article 10 of Ordinance 9:
    - In this case the valuation may not be assigned to a 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 per cent of the company'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..
- Select a sample (based on the selection criteria for the sample analyzed at section 1.5.4) to review supporting documents in respect of ownership and valuation
- Perform an assessment in respect to the valuation of the selected sample – the IER should perform a review of the valuation report, the valuation methodology and assessment in respect to the market value considering the applicable framework. Independent valuers with the necessary capacity under the Independent Valuers Act, either employees of the IER or subcontractors should perform the assessment in order to evaluate the methodology and the assumptions used by the independent assessor. .

- Perform analytical review procedures (i.e. large items identification) comparing to the balances of 31.12.15;
- Where the pension fund has used a valuation method, the IER should refer to the fair value hierarchy guidance of IFRS, and also to the guidance on valuation techniques and inputs (refer to Appendix 9.2 – section 5 – Fair Value Hierarchy), to consider whether the methodology and inputs used are appropriate.
- In cases where a valuation technique is used by the PF, the IER should review, other than the methodology, as explained above, also the inputs used and comment on their reasonability, having performed a comparison of inputs with available market data (refer to Appendix 9.2 – section 3 – Inputs to Valuation Techniques).

- Examine the manner of storage of property documents certifying the ownership of investment properties is in compliance with the acting regulatory framework.

Output

- **Report comments, findings and recommendations on each above procedures (use the file R5.2 Investment properties output report.xlsx for documenting these);**
- **Describe the sample selection for testing.**
- **Describe the exceptions identified from review of the valuation methodology of investment properties, compared to the requirements of Ordinance 9;**
- **Comment on the reasonability of the valuation method used and of assumptions used for the valuation;**
- **Quantify the differences of any exceptions, where possible.**

4.2.4. Other Assets

The Other Assets account includes usually the following:

- receivables related to securities,
- accrued interest payments not included in the valuation of the respective financial instruments and
- dividends.

The following procedures should be performed to the extent this account is significant per guidance in section 1.5.3:

- Receive a list detailing all other assets as of 30 June 2016;
- Perform analytical review procedures (i.e. large items identification) comparing to the balances of 31.12.15;
- Select a sample of other assets categories (based on the selection criteria for the sample analyzed at section 1.5.4) to review supporting documents in respect of ownership and valuation;
- Examine and assess the recognition criteria of the balances of Other Assets.
- Examine the valuation of other assets selected, and whether the policies are in line with the requirements of applicable legislation;
- Examine whether impairment indicators of respective items exist in accordance with applicable framework.

5. Review of investments in related parties

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

Based as per par. 1, sub-section 2, item 3 of the Supplementary provision of the Social Insurance Code Related parties shall be:
a) the persons, of whom one controls the other person or a subsidiary thereof;
b) the persons whereof the activity is controlled by a third party;
c) the persons who jointly control a third party;
d) spouses, lineal relatives up to any degree and collateral relatives up to the fourth degree of consanguinity, including affines up to the third degree of affinity inclusive;
e) the persons, one of which owns directly and/ or through a controlled person 20 and/ or more than 20 per cent of the capital or the number of votes in the general meeting of another legal entity.

The term “persons” includes both natural persons and legal entities with legal personality.

We provide the following example, to illustrate the application of related party notion, as envisaged by the requirements:

> e.g. entity A participates in the share capital of entity B by 80% and entity B participates in the share capital of entity C by 30%; then entity A is a related party to entity B and also to entity C (as the indirect participation of A in the capital of C is 24 % (80 % x 30 % = 24 %); B and C are also related parties.

Based as per par. 1, sub-section 2, item 4 of the Supplementary provision of the Social Insurance Code "Control" is in effect where a person:
(a) holds, inter alia through a subsidiary or by virtue of an agreement entered into with another person, more than 50 per cent of the number of votes in the General Meeting of a company or another legal person, or
(b) may designate, whether directly or indirectly, more than one-half of the members of the managing or supervisory body of a legal person, or
(c) by virtue of a law, instrument of incorporation or agreement manages, represents and/or determines the investment policy of another person, or
(d) may in any other way exercise decisive influence on the decision-making in connection with the business of a legal person.

According to Art.177, par. 1, item 2 in connection with Art.249, par. 1 of the Social Insurance Code, for mandatory and voluntary PF’s, a PIC may not invest the financial resources of a pension fund in any securities issued by the pension insurance company which manages the said fund or by parties related to the said company;

The IER may 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 related parties.

In order to perform the review, the reviewers are required to perform the following procedures:

- Obtain a complete list of related parties with the PIC as of 30 June 2016;
- Perform an interview with management concerning: the completeness of the PIC’s related parties, as well as the identity of the related parties, ꜩ the nature of the relationship between the pension insurance company and these related parties; (in order understand the process followed by the management for the completeness of the list of the related parties as described above);
- Perform an interview of management and other persons in the PIC concerning the controls in place in order to identify and disclose the related party relations according to the applicable financial reporting legal framework, the internal processes of authorization and approval of the investments ;
- The IER is expected to use its professional judgment in order to identify any other related party:
    - by inspecting the available information and documents throughout the procedures performed during the review period;

- by reading the minutes of the general shareholders' meetings, board of directors and any other committees or boards that are relevant for the management of the pension fund's activity;
- by obtaining and reading important agreements with third parties that may relate to investments;
- by reviewing the related correspondence with the regulator;
- by performing independent research using information publicly available for example to review the list of shareholdings of key management personnel, administrators or any other relevant person to the pension fund and its activity. This information should be properly checked for reliability and the sources should be explained;
- by considering the legal prohibition for investments in security issued by related parties and comment whether this requirement is met. This should include an assessment of whether the list of shareholdings includes any securities issued by the owner of the PIC that manages it or by companies related to the owner.
- The research by the IER shall take into account the need to assess relationships as of the reference date for the review (e.g. if minutes of general shareholdings' meetings are used, the IER should bear in mind that the participation in the capital of the respective company may have changed later on and may not be the same as of reference date).

- In case there are other significant (refer to section 1.5.3) balances with related parties, not related to investments in securities issued by related parties, covered above), the following procedures should be followed:
- Obtain the breakdown of the outstanding balances with related parties as at 30.6.2016 and 31.12.2015(including any additional related parties identified as part of the above procedure and analyze the nature). The breakdown must contain the ageing of the receivables/payables for securities issued by parties related to the PIC, in order to identify any no moved balances and assess if the impairment test is required;
- Obtain detail of guarantees received from or given to related parties as at 30.6.2016 and 31 December 2015;
- Reconcile the outstanding with the trial balance as at the relevant dates; Understand and review the reconciliation process with related parties of the pension fund at the respective dates, as well as to inspect any material differences between the amounts reported by the pension fund and the ones reported/confirmed/reconciled by the related party; Request confirmation letters from all related parties that are issuers of securities in which the pension fund has invested as of 30 June 2016 whether they are related to the PIC within the meaning of par. 1, sub-section 2, item 3 of the Supplementary provision of the Social Insurance Code and compare the confirmation letters with the details received from the pension fund. Inspect any differences over RT;

- For the top 10 related party outstanding balances as at reference date, inspect underlying contracts or agreements and assess the business reasoning (or its absence) within the transactions, the transaction terms, according to the management explanations, and whether the transactions were appropriately authorized and approved.
- Assess recoverability of the balances with related parties taking into account the ageing, existing information about the financial situation of the counterparty, other public information, where available;
- Consider any subsequent event relevant to the analysis performed, including application of supervisory measures or provision of recommendations by the FSC, subsequent sale of the respective asset, relation to related parties, or any other relevant information as applicable. Such events should also be clearly noted in the report;

Output:

- **Findings and recommendations for remedial actions;**
- **Comment on whether the restrictions imposed by the Social Insurance Code related to investments in related parties is complied with;**
- **Conclusion on the value of investments of the pension funds in securities issued by parties related to the PIC which manages it within the meaning of par. 1, sub-section 2, item 3 of the**

Supplementary provision of the Social Insurance Code following the review;

6. Review of the risks of the pension funds

According to the scope of the PFAR the IER should identify risks in relation to the applicable legal framework and risks not captured or not fully captured by the legal framework. In order to assess these risks the following procedures should be performed:

6.1. Risk assessment in accordance with the provisions of the applicable legal framework

- Examine whether the investments of the balance sheet assets of the universal and professional pension funds comply with the quantitative restrictions in Art. 178 of the SIC.

Investment limits concerning the universal and professional pension funds (Art. 178 of the SIC)		
No	**Investment limit**	**Investment limit (as % of the balance sheet assets of the PF)**
1	Securities issued by a single issuer, with the exception of the securities, issued or guaranteed by EU MSs and EEA Countries, their central banks, the ECB, the EIB and securities under item 10 of the table	5%
2	Securities issued by a single issuer and the parties related to it, with the exception of the securities, issued or guaranteed by EU MSs and EEA Countries, their central banks, the ECB, the EIB and the securities under item 10 of the table	10 %
3	Debt securities, issued or guaranteed by EU MSs, EEA Countries and countries specified in Ordinance 29 of the FSC, as well as by the ECB and the EIB	No limit
4	Stocks admitted to trading on a regulated market	20 %
5	Shares in a special purpose investment company licensed according to the Special Purpose Investment Companies Act as well as in rights issued upon an increase of the capital of the company (Art. 176, par. 1, item 3 of the SIC)	5 %
6	Municipal bonds (Art. 176, par. 1, item 4, item 12, letter a) and item 13, letter a) of the SIC)	15%
7	Bank deposits	25%
8	Bank deposits in a single bank	5%
9	Mortgage bonds, admitted to trading on a regulated market (Art. 176, par. 1, item 6 of the SIC)	30 %
10	Infrastructural bonds (Art. 176, par. 1, item 7 of the SIC)	10 %
11	Corporate bonds admitted to trading on regulated market in an EU MS, in an EEA Country or in a country set out in Ordinance 29 of the FSC	25 %
12	Secured corporate bonds that will be listed on a regulated market within 6 months (Art. 176, par. 1, item 9 of the SIC)	5 %
13	Shares and/or units issued by collective investment schemes (Art. 176, par. 1, items 10 and 14 of the SIC)	15 %
14	Shares and units issued by collective investment schemes managed by the same management company	5 %
15	Investment properties in an EU MS or in EEA Country	5 %
16	Investments in assets, denominated in currency different than BGN or EUR	20 %

- Examine whether the investments of the balance sheet assets of the voluntary pension funds comply with the quantitative restrictions in Art. 251 of the SIC.

Investment limits concerning the voluntary pension funds (Art. 251 of the SIC)

No	**Investment limit**	**Investment limit (as % of the balance sheet assets of the PF)**
1	Securities issued by a single issuer, with the exception of the securities under items 3 and 11 of the table	5%
2	Securities issued by a single issuer and the parties related to it, with the exception of the securities under items 3 and 11 of the table	10 %
3	Debt securities, issued or guaranteed by EU MSs, EEA Countries and countries specified in Ordinance 29 of the FSC, as well as by the ECB and the EIB	No limit
4	Stocks admitted to trading on a regulated market	No limit
5	Shares in a special purpose investment company licensed according to the Special Purpose Investment Companies Act as well as in rights issued upon an increase of the capital of the company (Art. 176, par. 1, item 3 of the SIC)	10 %
6	Municipal bonds (Art. 176, par. 1, item 4, item 12, letter a) and item 13, letter a) of the SIC)	No limit
7	Bank deposits	No limit
8	Bank deposits in a single bank	5%
9	Mortgage bonds, admitted to trading on a regulated market (Art. 176, par. 1, item 6 of the SIC)	No limit
10	Infrastructural bonds (Art. 176, par. 1, item 7 of the SIC)	No limit
11	Corporate bonds admitted to trading on regulated market in an EU MS, in an EEA Country or in a country set out in Ordinance 29 of the FSC	No limit
12	Secured corporate bonds that will be listed on a regulated market within 6 months (Art. 176, par. 1, item 9 of the SIC)	10 %
13	Shares and/or units issued by collective investment schemes (Art. 176, par. 1, items 10 and 14 of the SIC)	No limit
14	Shares and units issued by collective investment schemes managed by the same management company	10 %
15	Investment properties in an EU MS or in EEA Country	10 %
16	Investments in a single investment property	5 %
17	Investments in assets, denominated in currency different than BGN or EUR	30 %

- Examine and comment on the controls that the PIC has implemented in order to ensure that the PF complies with the above restrictions;
- Perform any other procedures as deemed appropriate depending on the risks identified by the IER for the specific pension fund.

Specific focus should be placed on material investments risks e.g. market risk, interest rate and credit risk. Refer to guidance provided in section 6.2 to this respect.

Output:

- **Findings and recommendations for remedial actions;**
- **Comment on whether the restrictions imposed by the Social Insurance Code related to investments by each pension fund are complied with.**

6.2. Risks not captured or not fully captured by the legal framework

A main focus of this PFAR, is to assess the valuation of financial instruments in accordance with the existing legal framework, but also to ensure consistency in the application. At the same time, the IER is requested to proceed to an assessment of the material investment (or other) risks which may not be (fully) captured by the legal framework. More detailed procedures to this respect are included below.

The PMO's role includes the assessment of whether a consistent treatment of the valuation principles is followed across the different participating companies, for same/similar instruments. As a result:

- the IER may be requested to determine adjustments, as a result of an assessment of (in)active markets including in terms of frequency and volume of transactions; such adjustments may relate to fair value measurement and the use of valuation techniques, ensuring that the same financial instrument is not subject to different valuation principles depending on the company and/or independent external reviewer.
- The IER should report on the number of non-compliant valuations identified and quantify the difference per asset.
- The IER will be requested to assess the extent to which the credit risk (own or counterparty risk) was taken into account for the valuation of the financial instruments, on the basis of IFRS 13.
- Another risk not currently captured is the effect of IFRS 9 on the valuation of these instruments, especially those that will be subject to the impairment requirements of IFRS 9 (the financial instruments owned by the pension funds are not valued at amortised cost, however the receivables of the pension funds can be subject to impairment). The IER is expected to provide comments and to the extent possible, quantify the effect.

To cover the objective described in the first paragraph above, the following procedures should be performed by the IER:

- ► Analyse the concentration of **credit risk** of the pension fund's investments. Summarize the investments of the pension fund in terms of concentrations by issuer (including relevant ISDN), currency (BGN, EURO, USD), sector (government, processing, construction, trading, tourism, extraction, financials, other) and region (Bulgaria, Eastern Europe, Asia, Latin America, Western Europe, US) and comment on the existence of concentrations of more than 10% per category. Note that the 10% threshold is used as an indication, based on certain references made in IFRS (e.g. reference in IFRS 8: Operating Segments for significant concentration of risks; Please complete **R5.1 w/s 3** to this respect**.**

- ► Examine the extent of exposure to **interest rate risk** of the pension fund's investments mainly in bonds.
    - o Summarize the investments in the categories of fixed interest rates and variable interest rates and comment on the extent of exposure to interest rate risks and the procedures that the pension insurance company has established to mitigate these risks; Please complete **R5.1. w/s 3** to this respect.
    - o Analyze the effect of a change of 50 basis points in interest rate (all other conditions being equal) in the financial position and financial results of the PF; Please complete template **R5.1. w/s 4** to this respect.
    - o Describe whether the PIC has a policy for hedging the interest risk and how this is effected.

- ► Examine the **liquidity risk** of the pension fund and whether the management of the pension insurance company has established an active policy of long –term synchronization of assets and liabilities. The IER should examine the plans and strategies that pension funds have in place in order to ensure the orderly pay-out of pensions (e.g. projections of the number and amounts to be paid each year, plans and strategy to dispose of assets in order to fund the amounts needed to pay out the annuities, plans to purchase such annuities or other strategy to ensure the cash flow needed).

Obtain a liquidity analysis, as described in IFRS 7.B11 and please complete template **R5.1, w/s 6** to this respect.

- For **exchange risk**:
  - analyze the instruments per class of assets into currency; Please use template **R5.1 w/s 3**.
  - Analyze the effect of change in each currency by 10% (all other things being equal). Please use template R5.1. w/s 5;
  - Describe whether the PIC has a policy for hedging the exchange risk and how this is effected.
- 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. Based on the requirements of IFRS 13 valuation techniques used to measure fair value shall maximise the use of relevant observable inputs and minimise the use of unobservable inputs. Examples of markets in which inputs might be observable for some assets and liabilities (eg financial instruments) include exchange markets, dealer markets, brokered markets and principal-to-principal markets. In addition to increase consistency and comparability in fair value measurements and related disclosures, IFRS establishes a fair value hierarchy that categorises into three levels the inputs to valuation techniques used to measure fair value. The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1 inputs) and the lowest priority to unobservable inputs (Level 3 inputs). According to the definitions of IFRS 13 an active market is a market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. Comment on the differences identified between current policies for the valuation of financial instruments and IFRS.

- For the valuation of shares/units issued by collective investment schemes, the IER should refer also to references in IFRS 13.BC 238(a), included in Appendix 9.2 – section 6 – Fair Value if Investments in investment companies, of this Manual. In general IFRS do not provide practical expedient to measure the fair value of certain investments in investment companies using Net Asset Value (NAV) or its equivalent (unlike US GAAP, which provide such an expedient if certain conditions are met). The reported NAV may provide a starting point for measuring fair value. However, adjustments may be required to reflect the specific characteristics that market participants would consider in pricing the investment. The IER should consider whether it is reasonable that NAV be used taking into consideration the valuation techniques and inputs used by 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. Moreover, the IER should comment on whether it would expect adjustments to the NAV to reflect characteristics that market participants would consider in pricing an equity investment.

- Confirm 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.

- For assets which according to the IER are not valued in compliance with IFRS, the IER should perform an IFRS-compliant valuation. The IER should document the valuation technique used (including assumptions used and their justification) and the rationale behind selecting the specific technique. The PMO will ensure consistency and signal any discrepancies and difficult cases to the SC.

- 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 IFRS. Based on IAS 24 :

  A related party is a person or entity that is related to the entity that is preparing its financial statements (in IAS 24 referred to as the 'reporting entity').

(a) A person or a close member of that person's family is related to a reporting entity if that person:
    (i) has control or joint control of the reporting entity;
    (ii) has significant influence over the reporting entity; or
    (iii) is a member of the key management personnel of the reporting entity or of a parent of the reporting entity.
(b) An entity is related to a reporting entity if any of the following conditions applies:
    (i) The entity and the reporting entity are members of the same group (which means that each parent, subsidiary and fellow subsidiary is related to the others).
    (ii) One entity is an associate or joint venture of the other entity (or an associate or joint venture of a member of a group of which the other entity is a member).
    (iii) Both entities are joint ventures of the same third party.
    (iv) One entity is a joint venture of a third entity and the other entity is an associate of the third entity.
    (v) The entity is a post-employment benefit plan for the benefit of employees of either the reporting entity or an entity related to the reporting entity. If the reporting entity is itself such a plan, the sponsoring employers are also related to the reporting entity.
    (vi) The entity is controlled or jointly controlled by a person identified in (a).
    (vii) A person identified in (a)(i) has significant influence over the entity or is a member of the key management personnel of the entity (or of a parent of the entity).

For the purposes of assessing of investments in securities issued by related parties based on IAS 24, please refer to the definition of 'control' in IAS 24/IFRS 10:

IFRS 10 states that 'an investor controls an investee when the investor is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee' [IFRS 10, par.5-9]. An investor, regardless of the nature of its involvement with an entity (the investee), shall determine whether it is a parent by assessing whether it controls the investee. An investor controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. Thus, an investor controls an investee if and only if the investor has all the following:

1. power over the investee
2. exposure, or rights, to variable returns from its involvement with the investee
3. the ability to use its power over the investee to affect the amount of the investor's returns

An investor shall consider all facts and circumstances when assessing whether it controls an investee. The investor shall reassess whether it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed in par. 7 (see par. B80-B85).

Two or more investors collectively control an investee when they must act together to direct the relevant activities. In such cases, because no investor can direct the activities without the co-operation of the others, no investor individually controls the investee. Each investor would account for its interest in the investee in accordance with the relevant IFRSs, such as IFRS 11 Joint Arrangements, IAS 28 Investments in Associates and Joint Ventures or IFRS 9 Financial Instruments.

The following illustrative example is provided for the definition of related parties based on IAS 24:

(a) entity A participates in the share capital of entity B by 80% and entity B participates in the share capital of entity C by 20%; then entity A is a related party to entity B and also to entity C; B and C are also related parties.
(b) If entity A participates in the share capital of entity B by 60% and entity B participates in the share capital of entity C by 15% but at the same time controls 20% of the votes in Shareholders' meetings (possibly through a side contractual agreement with another party), then entity A and entity C are related parties.

- Examine whether there could be differences in the related parties identified that could arise from the changes in the definitions for “Related parties” and “Control” entering into effect from 12 August 2016:

"Related parties" shall be:

(a) the persons, of whom one controls the other person or a subsidiary thereof;

(b) the persons whereof the activity is controlled by a third party;

(c) the persons who jointly control a third party;

(d) spouses, lineal relatives up to any degree and collateral relatives up to the fourth degree of consanguinity, including affines up to the third degree of affinity inclusive;

(e) the persons, one of which owns directly and/or through a controlled person/controlled persons 20 per cent or more than 20 per cent of the capital or of the number of votes in the General Meeting of the other legal person.

"Control" exists where a natural person or legal entity (the controlling party):

a) is able to exercise directly and/or through a controlled person/controlled persons more than half of the votes in a legal entity’s general meeting, or

b) is able to appoint more than half of the members of a legal entity’s managing or supervisory body and is at the same time a shareholder or a partner in this entity, or

c) has the right to exercise decisive influence on a legal entity pursuant to a contract concluded therewith or to its memorandum of association or articles of association, where this is allowed by the legislation applicable in respect of this legal entity, or

d) is a shareholder or a partner in a company, and:

aa) more than half of the members of this legal entity’s managing or supervisory body, who have performed their relevant duties during the previous and the current financial year and until the moment of preparation of the consolidated financial statements, have been appointed exclusively as a result of the exercise of its voting rights, or

bb) pursuant to a contract with other shareholders or partners in this legal entity, independently controls more than half of the votes in its general meeting, or

e) by virtue of a law, instrument of incorporation or agreement manages, represents and/or determines the investment policy of another person.

In the cases referred to in (a), (b) and (d), to the number of votes of the controlling party shall also be added the number of votes of the legal entities controlled by it and the number of votes of the persons, acting in their own name and on behalf of the controlling party or on the behalf of a legal entity controlled by the controlling party.

In the cases referred to in (a), (b) and (d), the number of votes held by the controlling party shall be decreased with the votes pertaining to shares held on behalf of another person which is neither the controlling party, nor a legal entity controlled by it, and with the votes pertaining to pledged shares, where the rights pertaining thereto are exercised based on the pledgor’s instructions and in the pledgor’s interest.

In the cases referred to in (a) and (d), the number of votes of the controlling party shall be decreased with the votes pertaining to shares held by the controlled person itself through a person controlled by the controlled person or through a person acting in his/her/its own name but on behalf of the controlling party and on behalf of the person controlled by the controlling party.

The term “persons”, used in the definitions for “related parties” and “control”, includes both natural persons and legal entities with legal personality.

- Examine the procedures that the pension insurance company has established to manage the above risks and the pension fund’s financial vulnerability to these risks.
- Identify other main risks (e.g. political risks) that may not have been identified by the management of the pension insurance companyor not fully captured by the legal framework; Specific attention should be placed by the independent external reviewer in the areas of related parties and valuation of assets in order to identify main risks not captured or not fully captured by the legal framework.
- Provide recommendations by incorporating any findings as a result of the detailed procedures performed in previous sections.

Output

- **Conclude on the risks identified in this respect in relation to the specific pension fund**
- **Comments on main risks and where possible estimation of the impact identified per fund and recommendations for remedial actions and improvements in the legal framework to capture those risks;**

7. Quality assurance and progress tracking

The PMO in coordination with the SC aims to ensure a harmonized application of the methodology by the reviewers as well as a similar treatment of the participating undertakings by the respective reviewers through:

- Reviewing the Blueprints and progress reports and providing timely feedback
- Reviewing the Conclusion reports and provide feedback
- Asses significance of issues reported by the reviewers and the remedial actions proposed
- Delivering answers through the Q&A tool

Blue print

At the beginning of the reviews, each reviewer will submit to the PMO a blueprint which will describe:

- the work plan proposed for performing the review including a description of any deviations compared to this methodology
- timing
- the estimated number of hours needed to complete each stage of the review
- any expected limitations
- materiality computation and selected accounts for review
- other information as considered relevant for the specific company

Please refer to template R1.

The blueprints will be submitted to the PMO and SC after 14 days from the starting date of the Assets Review. The starting date of the review is the date of issuance of the act of the FSC/the Deputy Chairperson in charge of Social Insurance Supervision Division is the official starting date of review.

Each reviewer will participate at a preparatory meeting with the PMO and the SC to provide an overview of the proposed work.The PMO should ensure consistency between the hours of work and procedures estimated by the different reviewers and signal to the SC any cases in which significant discrepancies are observed.

Progress reports

During the PFAR exercise reviewers:

- will submit twice a month to the PMO and SC a progress report in English. This shall clearly identify the implementation stage, relevant findings and concerns. Please refer to template R3.
- may at any time during the review draw up a complementary letter if it considers that the PMO and the SC should be informed about facts and issues that are or may be urgent or of particular interest and importance to the successful completion of the PFAR.
- need to be available to discuss with the PMO and SC the interim results during the monthly meetings of the SC and during conference calls.

In cases where the information is not available due to time constraints or has a poor quality the reviewer should determine where assumptions or proxies could be used to perform the tests required and propose remedial actions to the PMO and SC.

Findings report

The type of report to be provided is a proposed Agreed Upon Procedures format in accordance with ISRS 4400.

The objective of the particular engagement is for the IER to carry out procedures of an audit nature as will be described at the methodology that will be provided and to report on factual findings. The findings will refer to the financial information of pension funds' assets and liabilities as well as to non-financial information relating to applicable regulatory framework and of the risks of the sector.

The report shall contain the items and statement as described at ISRS 4400 including

- Identification of specific financial and non-financial information to which the agreed-upon procedures have been applied
- A statement that the procedures performed were those agreed upon with the recipient
- A listing of the specific procedures performed
- A description of the IER's factual findings including sufficient details of errors and exceptions found

Template R5 - requests the reviewers to include comments, conclusions as well as judgment over the different findings and the necessary quantitative assessments.

8. Confidentiality

The project manager and the IER shall hold in confidence any confidential information obtained during the course of the exercises. Furthermore, they not make any future use of the information obtained during the course of the exercises, unless there is a legal or professional obligation to do so.

The information provided by the project manager and the IER will be shared with the observers in the SC without violation of Art 24-25 of the Financial Supervision Commission Act regarding the professional secrecy.

9. Appendix

9.1. Templates

Please refer to templates: R1, R2, R3, R4, R5, R5.1, R5.2

9.2 Extracts from IFRS 13

1. Fair Value measurement

9 This IFRS defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

B2 The objective of a fair value measurement is to estimate the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions. A fair value measurement requires an entity to determine all the following:

(a) the particular asset or liability that is the subject of the measurement (consistently with its unit of account).

(b) for a non-financial asset, the valuation premise that is appropriate for the measurement (consistently with its highest and best use).

(c) the principal (or most advantageous) market for the asset or liability.

(d) the valuation technique(s) appropriate for the measurement, considering the availability of data with which to develop inputs that represent the assumptions that market participants would use when pricing the asset or liability and the level of the fair value hierarchy within which the inputs are categorised.

15 A fair value measurement assumes that the asset or liability is exchanged in an orderly transaction between market participants to sell the asset or transfer the liability at the measurement date under current market conditions.

21 Even when there is no observable market to provide pricing information about the sale of an asset or the transfer of a liability at the measurement date, a fair value measurement shall assume that a transaction takes place at that date, considered from the perspective of a market participant that holds the asset or owes the liability. That assumed transaction establishes a basis for estimating the price to sell the asset or to transfer the liability.

24 Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (ie an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.

25 The price in the principal (or most advantageous) market used to measure the fair

value of the asset or liability shall not be adjusted for transaction costs. Transaction costs shall be accounted for in accordance with other IFRSs. Transaction costs are not a characteristic of an asset or a liability; rather, they are specific to a transaction and will differ depending on how an entity enters into a transaction for the asset or liability.

Fair value at initial recognition

57 When an asset is acquired or a liability is assumed in an exchange transaction for that asset or liability, the transaction price is the price paid to acquire the asset or received to assume the liability (an *entry price*). In contrast, the fair value of the asset or liability is the price that would be received to sell the asset or paid to transfer the liability (an exit price). Entities do not necessarily sell assets at the prices paid to acquire them. Similarly, entities do not necessarily transfer liabilities at the prices received to assume them.

58 In many cases the transaction price will equal the fair value (eg that might be the case when on the transaction date the transaction to buy an asset takes place in the market in which the asset would be sold).

59 When determining whether fair value at initial recognition equals the transaction price, an entity shall take into account factors specific to the transaction and to the asset or liability. Paragraph B4 describes situations in which the transaction price might not represent the fair value of an asset or a liability at initial recognition.

60 If another IFRS requires or permits an entity to measure an asset or a liability initially at fair value and the transaction price differs from fair value, the entity shall recognise the resulting gain or loss in profit or loss unless that IFRS specifies otherwise.

B4 When determining whether fair value at initial recognition equals the transaction price, an entity shall take into account factors specific to the transaction and to the asset or liability. For example, the transaction price might not represent the fair value of an asset or a liability at initial recognition if any of the following conditions exist:

(a) The transaction is between related parties, although the price in a related party transaction may be used as an input into a fair value measurement if the entity has evidence that the transaction was entered into at market terms.

(b) The transaction takes place under duress or the seller is forced to accept the price in the transaction. For example, that might be the case if the seller is experiencing financial difficulty.

(c) The unit of account represented by the transaction price is different from the unit of account for the asset or liability measured at fair value. For example, that might be the case if the asset or liability measured at fair value is only one of the elements in the transaction (eg in a business combination), the transaction includes unstated rights and privileges that are measured separately in accordance with another IFRS, or the transaction price includes transaction costs.

(d) The market in which the transaction takes place is different from the principal market (or most advantageous market). For example, those markets might be different if the entity is a dealer that enters into transactions with customers in the retail market, but the principal (or most advantageous) market for the exit transaction is with other dealers in the dealer market.

2. Valuation techniques

61 An entity shall use valuation techniques that are appropriate in the circumstances and for which sufficient data are available to measure fair value, maximising the use of relevant observable inputs and minimising the use of unobservable inputs.

62 The objective of using a valuation technique is to estimate the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions. Three widely used valuation techniques are the market approach, the cost approach and the income approach. The main aspects of those approaches are summarised in paragraphs B5-B11. An entity shall use valuation techniques consistent with one or more of those approaches to measure fair value.

63 In some cases a single valuation technique will be appropriate (eg when valuing an asset or a liability using quoted prices in an active market for identical assets or liabilities). In other cases, multiple valuation techniques will be appropriate (eg that might be the case when valuing a cash-generating unit). If multiple valuation techniques are used to measure fair value, the results (ie respective indications of fair value) shall be evaluated considering the reasonableness of the range of values indicated by those results. A fair value measurement is the point within that range that is most representative of fair value in the circumstances.Valuation techniques (paragraphs 61-66)

64 If the transaction price is fair value at initial recognition and a valuation technique that uses unobservable inputs will be used to measure fair value in subsequent periods, the valuation technique shall be calibrated so that at initial recognition the result of the valuation technique equals the transaction price. Calibration ensures that the valuation technique reflects current market conditions, and it helps an entity to determine whether an adjustment to the valuation technique is necessary (eg there might be a characteristic of the asset or liability that is not captured by the valuation technique). After initial recognition, when measuring fair value using a valuation technique or techniques that use unobservable inputs, an entity shall ensure that those valuation techniques reflect observable market data (eg the price for a similar asset or liability) at the measurement date

Market approach

B5 The market approach uses prices and other relevant information generated by market transactions involving identical or comparable (ie similar) assets, liabilities or a group of assets and liabilities, such as a business.

B6 For example, valuation techniques consistent with the market approach often use market multiples derived from a set of comparables. Multiples might be in ranges with a different multiple for each comparable. The selection of the appropriate multiple within the range requires judgement, considering qualitative and quantitative factors specific to the measurement.

B7 Valuation techniques consistent with the market approach include matrix pricing. Matrix pricing is a mathematical technique used principally to value some types of financial instruments, such as debt securities, without relying exclusively on quoted prices for the specific securities, but rather relying on the securities' relationship to other benchmark quoted securities.

B8 The cost approach reflects the amount that would be required currently to replace the service capacity of an asset (often referred to as current replacement cost).

B9 From the perspective of a market participant seller, the price that would be received for the asset is based on the cost to a market participant buyer to acquire or construct a substitute asset of comparable utility, adjusted for obsolescence. That is because a market participant buyer would not pay more for an asset than the amount for which it could replace the service capacity of that asset. Obsolescence encompasses physical deterioration, functional (technological) obsolescence and economic (external) obsolescence and is broader than depreciation for financial reporting purposes (an allocation of historical cost) or tax purposes (using specified service lives). In many cases the current replacement cost method is used to measure the fair value of tangible assets that are used in combination with other assets or with other assets and liabilities.

Income approach

B10 The income approach converts future amounts (eg cash flows or income and expenses) to a single current (ie discounted) amount. When the income approach is used, the fair value measurement reflects current market expectations about those future amounts.

B11 Those valuation techniques include, for example, the following:

(a) present value techniques (see paragraphs B12-B30);

(b) option pricing models, such as the Black-Scholes-Merton formula or a binomial model (ie a lattice model), that incorporate present value techniques and reflect both the time value and the intrinsic value of an option; and

(c) the multi-period excess earnings method, which is used to measure the fair value of some intangible assets.

Present value techniques

B12 Paragraphs B13-B30 describe the use of present value techniques to measure fair value. Those paragraphs focus on a discount rate adjustment technique and an *expected cash flow* (expected present value) technique. Those paragraphs neither prescribe the use of a single specific present value technique nor limit the use of present value techniques to measure fair value to the techniques discussed. The present value technique used to measure fair value will depend on facts and circumstances specific to the asset or liability being measured (eg whether prices for comparable assets or liabilities can be observed in the market) and the availability of sufficient data.

The components of a present value measurement

B13 Present value (ie an application of the income approach) is a tool used to link future amounts (eg cash flows or values) to a present amount using a discount rate. A fair value measurement of an asset or a liability using a present value technique captures all the following elements from the perspective of market participants at the measurement date:

(a) an estimate of future cash flows for the asset or liability being measured.

(b) expectations about possible variations in the amount and timing of the cash flows representing the uncertainty inherent in the cash flows.

(c) the time value of money, represented by the rate on risk-free monetary assets that have maturity dates or durations that coincide with the period covered by the cash flows and pose neither uncertainty in timing nor risk of default to the holder (ie a risk-free interest rate).

(d) the price for bearing the uncertainty inherent in the cash flows (ie a risk premium).

(e) other factors that market participants would take into account in the circumstances.

(f) for a liability, the non-performance risk relating to that liability, including the entity's (ie the obligor's) own credit risk.

B14 Whether the asset or liability is a stand-alone asset or liability, a group of assets, a group of liabilities or a group of assets and liabilities for recognition or disclosure purposes depends on its unit of account. The unit of account for the asset or liability shall be determined in accordance with the IFRS that requires or permits the fair value measurement, except as provided in this IFRS.

B15 A fair value measurement assumes that the asset or liability is exchanged in an orderly transaction between market participants to sell the asset or transfer the liability at the measurement date under current market conditions

B16 A fair value measurement assumes that the transaction to sell the asset or transfer the liability takes place either:

(a) in the principal market for the asset or liability; or

(b) in the absence of a principal market, in the most advantageous market for the asset or liability.

B17 An entity need not undertake an exhaustive search of all possible markets to identify the principal market or, in the absence of a principal market, the most advantageous market, but it shall take into account all information that is reasonably available. In the absence of evidence to the contrary, the market in which the entity would normally enter into a transaction to sell the asset or to transfer the liability is presumed to be the principal market or, in the absence of a principal market, the most advantageous market.

B18 If there is a principal market for the asset or liability, the fair value measurement shall represent the price in that market (whether that price is directly observable or estimated using another valuation technique), even if the price in a different market is potentially more advantageous at the measurement date.

B19 The entity must have access to the principal (or most advantageous) market at the measurement date. Because different entities (and businesses within those entities) with different activities may have access to different markets, the principal (or most advantageous) market for the same asset or liability might be different for different entities (and businesses within those entities). Therefore, the principal (or most advantageous) market (and thus, market participants) shall be considered from the perspective of the entity, thereby allowing for differences between and among entities with different activities.

B20 Although an entity must be able to access the market, the entity does not need to be able to sell the particular asset or transfer the particular liability on the measurement date to be able to measure fair value on the basis of the price in that market.

B21 Even when there is no observable market to provide pricing information about the sale of an asset or the transfer of a liability at the measurement date, a fair value measurement shall assume that a transaction takes place at that date, considered from the perspective of a market participant that holds the asset or owes the liability. That assumed transaction establishes a basis for estimating the price to sell the asset or to transfer the liability.

B22 An entity shall measure the fair value of an asset or a liability using the assumptions that market participants would use when pricing the asset or liability, assuming that market participants act in their economic best interest.

B23 In developing those assumptions, an entity need not identify specific market participants. Rather, the entity shall identify characteristics that distinguish market participants generally, considering factors specific to all the following:

(a) the asset or liability;

(b) the principal (or most advantageous) market for the asset or liability; and

(c) market participants with whom the entity would enter into a transaction in that market.

B24 Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (ie an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.

B25 The price in the principal (or most advantageous) market used to measure the fair value of the asset or liability shall not be adjusted for transaction costs. Transaction costs shall be accounted for in accordance with other IFRSs. Transaction costs are not a characteristic of an asset or a liability; rather, they are specific to a transaction and will differ depending on how an entity enters into a transaction for the asset or liability.

B26 Transaction costs do not include transport costs. If location is a characteristic of the asset (as might be the case, for example, for a commodity), the price in the principal (or most advantageous) market shall be adjusted for the costs, if any, that would be incurred to transport the asset from its current location to that market.

B27 A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its highest and best use.

B28 The highest and best use of a non-financial asset takes into account the use of the asset that is physically possible, legally permissible and financially feasible, as follows:

(a) A use that is physically possible takes into account the physical characteristics of the asset that market participants would take into account when pricing the asset (eg the location or size of a property).

(b) A use that is legally permissible takes into account any legal restrictions on the use of the asset that market participants would take into account when pricing the asset (eg the zoning regulations applicable to a property).

(c) A use that is financially feasible takes into account whether a use of the asset that is physically possible and legally permissible generates adequate income or cash flows (taking into account the costs of converting the asset to that use) to produce an investment return that market participants would require from an investment in that asset put to that use.

B29 Highest and best use is determined from the perspective of market participants, even if the entity intends a different use. However, an entity's current use of a non-financial asset is presumed to be its highest and best use unless market or other factors suggest that a different use by market participants would maximise the value of the asset.

B30 To protect its competitive position, or for other reasons, an entity may intend not to use an acquired non-financial asset actively or it may intend not to use the asset according to its highest and best use. For example, that might be the case for an acquired intangible asset that the entity plans to use defensively by preventing others from using it. Nevertheless, the entity shall measure the fair value of a non-financial asset assuming its highest and best use by market participants.

3. Inputs to valuation techniques

General principles

67 Valuation techniques used to measure fair value shall maximise the use of relevant observable inputs and minimise the use of unobservable inputs.

68 Examples of markets in which inputs might be observable for some assets and liabilities (eg financial instruments) include exchange markets, dealer markets, brokered markets and principal-to-principal markets (see paragraph B34).

69 An entity shall select inputs that are consistent with the characteristics of the asset or liability that market participants would take into account in a transaction for the asset or liability (see paragraphs 11 and 12). In some cases those characteristics result in the application of an adjustment, such as a premium or discount (eg a control premium or non-controlling interest discount). However, a fair value measurement shall not incorporate a premium or discount that is inconsistent with the unit of account in the IFRS that requires or permits the fair value measurement (see paragraphs 13 and 14). Premiums or discounts that reflect size as a characteristic of the entity's holding (specifically, a blockage factor that adjusts the quoted price of an asset or a liability because the market's normal daily trading volume is not sufficient to absorb the quantity held by the entity, as described in paragraph 80) rather than as a characteristic of the asset or liability (eg a control premium when measuring the fair value of a controlling interest) are not permitted in a fair value measurement. In all cases, if there is a quoted price in an active market (ie a Level 1 input) for an asset or a liability, an entity shall use that price without adjustment when measuring fair value, except as specified in paragraph 79.

Inputs based on bid and ask prices

70 If an asset or a liability measured at fair value has a bid price and an ask price (eg an input from a dealer market), the price within the bid-ask spread that is most representative of fair value in the circumstances shall be used to measure fair value regardless of where the input is categorised within the fair value hierarchy (ie Level 1, 2 or 3; see paragraphs 72-90). The use of bid prices for asset positions and ask prices for liability positions is permitted, but is not required.

71 This IFRS does not preclude the use of mid-market pricing or other pricing conventions that are used by market participants as a practical expedient for fair value measurements within a bid-ask spread.

Inputs to valuation techniques (paragraphs 67-71)

B34 Examples of markets in which inputs might be observable for some assets and liabilities (eg financial instruments) include the following:

(a) *Exchange markets.* In an exchange market, closing prices are both readily available and generally representative of fair value. An example of such a market is the London Stock Exchange.

(b) *Dealer markets.* In a dealer market, dealers stand ready to trade (either buy or sell for their own account), thereby providing liquidity by using their capital to hold an inventory of the items for which they make a market. Typically bid and ask prices (representing the price at which the dealer is willing to buy and the price at which the dealer is willing to sell, respectively) are more readily available than closing prices. Over-the-counter markets (for which prices are publicly reported) are dealer markets. Dealer markets also exist for some other assets and liabilities, including some financial instruments, commodities and physical assets (eg used equipment).

(c) *Brokered markets.* In a brokered market, brokers attempt to match buyers with sellers but do not stand ready to trade for their own account. In other words, brokers do not use their own capital to hold an inventory of the items for which they make a market. The broker knows the prices bid and asked by the respective parties, but each party is typically unaware of another party's price requirements. Prices of completed transactions are sometimes available. Brokered markets include electronic communication networks, in which buy and sell orders are matched, and commercial and residential real estate markets.

(d) *Principal-to-principal markets.* In a principal-to-principal market, transactions, both originations and resales, are negotiated independently with no intermediary. Little information about those transactions may be made available publicly.

4. Measuring fair value when the volume or level of activity for an asset or a liability has significantly decreased

B37 The fair value of an asset or a liability might be affected when there has been a significant decrease in the volume or level of activity for that asset or liability in relation to normal market activity for the asset or liability (or similar assets or liabilities). To determine whether, on the basis of the evidence available, there has been a significant decrease in the volume or level of activity for the asset or liability, an entity shall evaluate the significance and relevance of factors such as the following:

(a) There are few recent transactions.

(b) Price quotations are not developed using current information.

(c) Price quotations vary substantially either over time or among market-makers (eg some brokered markets).

(d) Indices that previously were highly correlated with the fair values of the asset or liability are demonstrably uncorrelated with recent indications of fair value for that asset or liability.

(e) There is a significant increase in implied liquidity risk premiums, yields or performance indicators (such as delinquency rates or loss severities) for observed transactions or quoted prices when compared with the entity's estimate of expected cash flows, taking into account all available market data about credit and other non-performance risk for the asset or liability.

(f) There is a wide bid-ask spread or significant increase in the bid-ask spread.

(g) There is a significant decline in the activity of, or there is an absence of, a market for new issues (ie a primary market) for the asset or liability or similar assets or liabilities.

(h) Little information is publicly available (eg for transactions that take place in a principal-to-principal market).

B38 If an entity concludes that there has been a significant decrease in the volume or level of activity for the asset or liability in relation to normal market activity for the asset or liability (or similar assets or liabilities), further analysis of the transactions or quoted prices is needed. A decrease in the volume or level of activity on its own may not indicate that a transaction price or quoted price does not represent fair value or that a transaction in that market is not orderly. However, if an entity determines that a transaction or quoted price does not represent fair value (eg there may be transactions that are not orderly), an adjustment to the transactions or quoted prices will be necessary if the entity uses those prices as a basis for measuring fair value and that adjustment may be significant to the fair value measurement in its entirety. Adjustments also may be necessary in other circumstances (eg when a price for a similar asset requires significant adjustment to make it comparable to the asset being measured or when the price is stale).

B39 This IFRS does not prescribe a methodology for making significant adjustments to transactions or quoted prices. See paragraphs 61-66 and B5-B11 for a discussion of the use of valuation techniques when measuring fair value. Regardless of the valuation technique used, an entity shall include appropriate risk adjustments, including a risk premium reflecting the amount that market participants would demand as compensation for the uncertainty inherent in the cash flows of an asset or a liability (see paragraph B17). Otherwise, the measurement does not faithfully represent fair value. In some cases determining the appropriate risk adjustment might be difficult. However, the degree of difficulty alone is not a sufficient basis on which to exclude a risk adjustment. The risk adjustment shall be reflective of an orderly transaction between market participants at the measurement date under current market conditions.

B40 If there has been a significant decrease in the volume or level of activity for the asset or liability, a change in valuation technique or the use of multiple valuation techniques may be appropriate (eg the use of a market approach and a present value technique). When weighting indications of fair value resulting from the use of multiple valuation techniques, an entity shall consider the reasonableness of the range of fair value measurements. The objective is to determine the point within the range that is most representative of fair value under current market conditions. A wide range of fair value measurements may be an indication that further analysis is needed.

B41 Even when there has been a significant decrease in the volume or level of activity for the asset or liability, the objective of a fair value measurement remains the same. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction (ie not a forced liquidation or distress sale) between market participants at the measurement date under current market conditions.

B42 Estimating the price at which market participants would be willing to enter into a transaction at the measurement date under current market conditions if there has been a significant decrease in the volume or level of activity for the asset or liability depends on the facts and circumstances at the measurement date and requires judgement. An entity's intention to hold the asset or to settle or otherwise fulfil the liability is not relevant when measuring fair value because fair value is a market-based measurement, not an entity-specific measurement.

B45 When measuring the fair value of a liability or an entity's own equity instrument, an entity shall not include a separate input or an adjustment to other inputs relating to the existence of a restriction that prevents the transfer of the item. The effect of a restriction that prevents the transfer of a liability or an entity's own equity instrument is either implicitly or explicitly included in the other inputs to the fair value measurement.

B46 For example, at the transaction date, both the creditor and the obligor accepted the transaction price for the liability with full knowledge that the obligation includes a restriction that prevents its transfer. As a result of the restriction being included in the transaction price, a separate input or an adjustment to an existing input is not required at the transaction date to reflect the effect of the restriction on transfer. Similarly, a separate input or an adjustment to an existing input is not required at subsequent measurement dates to reflect the effect of the restriction on transfer.

B47 The fair value of a financial liability with a demand feature (eg a demand deposit) is not less than the amount payable on demand, discounted from the first date that the amount could be required to be paid.

5. Fair value hierarchy

72 To increase consistency and comparability in fair value measurements and related disclosures, this IFRS establishes a fair value hierarchy that categorises into three levels (see paragraphs 76-90) the inputs to valuation techniques used to measure fair value. The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1 inputs) and the lowest priority to unobservable inputs (Level 3 inputs).

Level 1 inputs

76 Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.

77 A quoted price in an active market provides the most reliable evidence of fair value and shall be used without adjustment to measure fair value whenever available, except as specified in paragraph 79.

78 A Level 1 input will be available for many financial assets and financial liabilities, some of which might be exchanged in multiple active markets (eg on different exchanges). Therefore, the emphasis within Level 1 is on determining both of the following:

(a) the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market for the asset or liability; and

(b) whether the entity can enter into a transaction for the asset or liability at the price in that market at the measurement date

79 An entity shall not make an adjustment to a Level 1 input except in the following circumstances:

a) when an entity holds a large number of similar (but not identical) assets or liabilities (eg debt securities) that are measured at fair value and a quoted price in an active market is available but not readily accessible for each of those assets or liabilities individually (ie given the large number of similar assets or liabilities held by the entity, it would be difficult to obtain pricing information for each individual asset or liability at the measurement date). In that case, as a practical expedient, an entity may measure fair value using an alternative pricing method that does not rely exclusively on quoted prices (eg matrix pricing). However, the use of an alternative pricing method results in a fair value measurement categorised within a lower level of the fair value hierarchy.

b)when a quoted price in an active market does not represent fair value at the measurement date. That might be the case if, for example, significant events (such as transactions in a principal-to-principal market, trades in a brokered market or announcements) take place after the close of a market but before the measurement date. An entity shall establish and consistently apply a policy for identifying those events that might affect fair value measurements. However, if the quoted price is adjusted for new information, the adjustment results in a fair value measurement categorised within a lower level of the fair value hierarchy.

c) when measuring the fair value of a liability or an entity's own equity instrument using the quoted price for the identical item traded as an asset in an active market and that price needs to be adjusted for factors specific to the item or the asset (see paragraph 39). If no adjustment to the quoted price of the asset is required, the result is a fair value measurement categorised within Level 1 of the fair value hierarchy. However, any adjustment to the quoted price of the asset results in a fair value measurement categorised within a lower level of the fair value hierarchy.

80 If an entity holds a position in a single asset or liability (including a position comprising a large number of identical assets or liabilities, such as a holding of financial instruments) and the asset or liability is traded in an active market, the fair value of the asset or liability shall be measured within Level 1 as the product of the quoted price for the individual asset or liability and the quantity held by the entity. That is the case even if a market's normal daily trading volume is not sufficient to absorb the quantity held and placing orders to sell the position in a single transaction might affect the quoted price.

Level 2 inputs

81 Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.

82 If the asset or liability has a specified (contractual) term, a Level 2 input must be observable for substantially the full term of the asset or liability. Level 2 inputs include the following:

(a) quoted prices for similar assets or liabilities in active markets.

(b) quoted prices for identical or similar assets or liabilities in markets that are not active.

(c) inputs other than quoted prices that are observable for the asset or liability, for example:

(i) interest rates and yield curves observable at commonly quoted intervals;

(ii) implied volatilities; and

(iii) credit spreads.

(c) market-corroborated inputs.

Level 3 inputs

86 Level 3 inputs are unobservable inputs for the asset or liability.

87 Unobservable inputs shall be used to measure fair value to the extent that relevant observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date. However, the fair value measurement objective remains the same, ie an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability. Therefore, unobservable inputs shall reflect the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk.

88 Assumptions about risk include the risk inherent in a particular valuation technique used to measure fair value (such as a pricing model) and the risk inherent in the inputs to the valuation technique. A measurement that does not include an adjustment for risk would not represent a fair value measurement if market participants would include one

when pricing the asset or liability. For example, it might be necessary to include a risk adjustment when there is significant measurement uncertainty (eg when there has been a significant decrease in the volume or level of activity when compared with normal market activity for the asset or liability, or similar assets or liabilities, and the entity has determined that the transaction price or quoted price does not represent fair value, as described in paragraphs B37-B47).

89 An entity shall develop unobservable inputs using the best information available in the circumstances, which might include the entity's own data. In developing unobservable inputs, an entity may begin with its own data, but it shall adjust those data if reasonably available information indicates that other market participants would use different data or there is something particular to the entity that is not available to other market participants (eg an entity-specific synergy). An entity need not undertake exhaustive efforts to obtain information about market participant assumptions. However, an entity shall take into account all information about market participant assumptions that is reasonably available. Unobservable inputs developed in the manner described above are considered market participant assumptions and meet the objective of a fair value measurement.

Using quoted prices provided by third parties

B45 This IFRS does not preclude the use of quoted prices provided by third parties, such as pricing services or brokers, if an entity has determined that the quoted prices provided by those parties are developed in accordance with this IFRS.

B46 If there has been a significant decrease in the volume or level of activity for the asset or liability, an entity shall evaluate whether the quoted prices provided by third parties are developed using current information that reflects orderly transactions or a valuation technique that reflects market participant assumptions (including assumptions about risk). In weighting a quoted price as an input to a fair value measurement, an entity places less weight (when compared with other indications of fair value that reflect the results of transactions) on quotes that do not reflect the result of transactions.

B47 Furthermore, the nature of a quote (eg whether the quote is an indicative price or a binding offer) shall be taken into account when weighting the available evidence, with more weight given to quotes provided by third parties that represent binding offers.

6. Fair value of investments in investment companies

BC 238(a) There are different accounting requirements in IFRSs and US GAAP for measuring the fair value of investments in investment companies. Topic 946 *Financial Services—Investment Companies* in US GAAP requires an investment company to recognise its underlying investments at fair value at each reporting period. Topic 820 provides a practical expedient that permits an entity with an investment in an investment company to use as a measure of fair value in specific circumstances the reported net asset value without adjustment. IFRS 10 *Consolidated Financial Statements* requires an investment company to consolidate its controlled underlying investments. Because IFRSs do not have accounting requirements that are specific to investment companies, the IASB decided that it would be difficult to identify when such a practical expedient could be applied given the different practices for calculating net asset values in jurisdictions around the world. For example, investment companies may report in accordance with national GAAP, which may have recognition and measurement requirements that differ from those in IFRSs (ie the underlying investments might not be measured at fair value, or they might be measured at fair value in accordance with national GAAP, not IFRSs). The boards are reviewing the accounting for investment companies as part of a separate project.

In October 2012, the Board issued *Investment Entities (Amendments to IFRS 10, IFRS 12 and IAS 27)*, which required investment entities, as defined in IFRS 10 *Consolidated Financial Statements*, to measure their investments in subsidiaries, other than those providing investment-related services or activities, at fair value through profit or loss. In their redeliberations on the Investment Entities project, the Board considered providing a net asset value practical expedient. However, the Board decided against this because there are different calculation methods in different jurisdictions and it is outside the scope of the Investment Entities project to provide fair value measurement guidance for investments in investment entities.