



# Actuarial Valuation and Design Review Report

## Advocates Pension Fund

November 2022



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# Executive Summary

## Introduction

A number of design reform scenarios were examined during the last few years and presented in our reports dated October 2018, March 2020, March 2021 and June 2022. Following the relevant discussions, the Administrative Committee has concluded to two final scenarios to be presented to the Fund members. One scenario focuses on parametric changes to the existing benefits structure and the other relates to a structural reform.

As per the terms of reference of our engagement and the instructions received, we have analyzed the specific design reforms requested by the Administrative Committee and estimated the impact on the current actuarial position of the Fund and on the funding plan for the future.

The analysis conducted has been based on a full actuarial funding valuation of the Advocates Pension Fund (the Fund) as at **30 September 2022**.

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## Disclaimer

This report (including any enclosures or attachments) is prepared upon instructions from the Administrative Committee of the Fund in relation to the provision of actuarial consulting services. It has been prepared at the date, for the purpose and on the basis set out in the report and for the sole exclusive benefit and use of the Fund. As such, it should not be used or relied upon by any other person for any other purpose including, without limitation, other professional advisers to the Fund and all third parties are hereby notified the report shall not be used as a substitute for any enquiries, procedures or advice which ought to be undertaken or sought by them. We do not accept responsibility for any consequences arising from any third party seeking to rely on this report.

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With respect to data on which we have relied in producing our report, whilst we have taken certain limited steps to satisfy ourselves that the data provided to us is of a quality sufficient for the purposes of our investigation, including carrying out certain basic tests for the purpose of detecting manifest inconsistencies, it is not possible for us to confirm the accuracy or completeness of the detailed information provided.

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## Pensions Reform

Given the pressures on the long-term financial sustainability of the Fund, the Administrative Committee needs to take decisive measures to reform the pension scheme to improve sustainability and restore full funding of Technical Provisions as per the requirements of the Law.

Securing the financial sustainability of pension schemes is a very complex task. Although there are endless variations of reforms that can ensure the

long-term viability of the scheme, the associated risks and the impact on members can be quite different depending on the chosen reform action plan. For example, trebling the contributions or halving the benefits may both ensure the viability of a pension system, however their impact is substantially different in terms of both financial risks and impact to members.

Reforms are best implemented early so that abrupt adjustments to design parameters are avoided. Gradual adjustments have the advantage of making reform more equitable as the burden of adjustment can be spread across many generations of members who will also have more time to adjust their work and savings decisions to the new parameter levels.

Reform options include:

- **Parametric reforms** that keep the system as it is but change system parameters, such as contribution rates, retirement ages, vesting periods, early retirement rules and retirement benefits;

It is widely clear that the **parametric reforms** to improve sustainability for pension schemes can be addressed in 3 ways:

- *Revenue measures* (higher contributions/income), or
  - *Benefit measures* (lower benefits), or
  - *Working Longer* (later retirement), or
  - *Combination* of all the above.
- **Structural Reforms** such as transition to defined-contribution that changes the structure of benefits;

If the Fund delays reforms, then the scale of adjustment to benefits needed in the medium or long term will be more sudden and painful. Such sudden changes make it very difficult for individuals to change their work, retirement and savings decisions to reflect the new financial realities.

Implementation is key to the reform of pension schemes. Reform will only be successful if the planned reforms are capable of being implemented in a timely and efficient manner with a smooth transitional period.

The introduction of a Defined Contribution plan for the future is a key feature of the structural reform that has been examined. The manner in which the Defined Contribution (DC) plan is introduced is a matter of policy and objectives that have been determined by the Administrative Committee of the Fund.

Under the structural reform scenario, the DC plan is only introduced for a specific group of members, thus all risks related with the current defined benefit design remain for the unaffected members. These will still need to be mitigated over the longer term as the current financing arrangements are not sufficient to ensure funding of the associated liabilities.

### **Criteria for Reform Choice**

A set of criteria is required in order to evaluate alternative reform policies and the future design of the Fund benefits. For the purposes of this report, as per the terms of reference of our engagement and the instructions received by the Administrative Committee of the Fund:

- for the scenario focusing on parametric changes, we have assumed that the Fund wishes to maintain the core benefit design structure and adjust its parameters to achieve financial sustainability in line with the funding parameters adopted.

- for the scenario focusing on structural changes, we have assumed that the Fund wishes to transition to a Defined Contribution plan, in line with market trends across all market sectors (including the government).
- Under the scenarios where a defined benefit plan remains in place, all related risks with the defined benefit design will continue to impact the actuarial solvency of the scheme (as set out in **Appendix 3**) and we strongly recommend the introduction of a mechanism that would monitor the funding plan regularly and trigger the necessary additional design reforms to restore funding to required levels, if necessary.
- In all cases, we strongly recommend that for any reform envisioned, the Fund obtains legal advice and the views of the regulator.

### Design Review Scenarios – Summary

The scenarios examined are outlined below:

- Scenario 1 – maintain the current Defined Benefit design with parametric changes to member contributions to restore the funding level to 100% over the chosen transition period.
- Scenario 2 – maintain the current Defined Benefit design for pensioners/dependents; immediate transition to a Defined Contribution Provident Fund for the active/inactive members.

#### Scenario 1



- Funding Level as at 30/9/2022 (i.e. ratio of assets versus liabilities): **43,5%**
- The Employee Contribution should be increased from EUR 480 per annum to **EUR 2.400 per annum** in order to restore funding at 100% over the next 30 years.
- Under this scenario, all related risks with the defined benefit design (as set out in **Appendix 3**) will continue to impact the actuarial solvency of the scheme and we strongly recommend the introduction of a mechanism that would monitor the funding plan regularly and trigger the necessary additional design reforms to restore funding to required levels, if necessary.

Scenario 2



- An amount of **EUR 28,6m** from the assets needs to be kept as a technical reserve in order to fully cover the Defined Benefit liabilities of the pensioners/dependents in the current Defined Benefit scheme.
- The residual amount of **EUR 51,3m** from the assets needs to be distributed to the individual Defined Contribution Provident Fund accounts of the active/inactive members, based on the following formula:

$$\text{Value of Benefit} = \text{Number of Units} \times \text{Unit Price} , \text{ where}$$

*Number of Units = Contributory Service until 30/9/2022 (in months)*

**Unit Price = EUR 63**

- For the pensioners/dependents, all related risks with the defined benefit design (as set out in **Appendix 3**) will continue to impact the actuarial solvency of the scheme and we strongly recommend the introduction of a mechanism that would monitor the funding plan regularly and trigger the necessary additional design reforms to restore funding to required levels, if necessary.
- The exact parameters of the Defined Contribution Provident Fund have not been examined as part of this report.

Signed on behalf of  
Aon

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# Introduction

## Scope of this review

Given the pressures on the long-term financial sustainability of the Fund, the Administrative Committee of the Advocates Pension Fund needs to take decisive measures to reform the pension scheme to improve its financial sustainability.

This report sets out the results of our actuarial valuation of the Advocates Pension Fund (the Fund) as at **30 September 2022** and our analysis of the two design reforms that were requested by the Administrative Committee of the Fund – one scenario focusing on parametric changes to the existing benefits structure and another scenario focusing on a structural reform.

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## Scope of Work

Aon has been engaged to analyze two design reforms requested by the Administrative Committee of the Fund, and estimate the impact on the current financial position of the Fund and on the funding plan for the future.

As per the agreed scope of services, a full actuarial funding valuation has been conducted. In particular, all calculations have been based on the updated membership data, assumptions/basis and benefit structure, using census data and financial statements/information as at **30 September 2022**.

The scope of work / scenarios examined are outlined below:

### **Scenario 1 – maintain the current Defined Benefit design with parametric changes to member contributions**

- Calculation of **(a)** the scheme's technical provisions / funding level at the valuation date, **(b)** the future service contribution rates resulting from the funding objectives, method and assumptions, and **(c)** the past service deficit contributions for the purposes of the recovery plan.
- Calculation of the revised annual member contribution amount to achieve full funding at the end of the recovery period.

### **Scenario 2 – maintain the current Defined Benefit design for pensioners/dependents; immediate transition to a Defined Contribution Provident Fund for the active/inactive members**

- Calculation of the scheme's technical provisions / funding level at the valuation date.
  - Determination of the amount of assets that needs to be kept as a technical reserve in order to cover the Defined Benefit liabilities of the pensioners/dependents in the current Defined Benefit scheme.
  - Calculation of the revised service-related unit price for the purposes of transferring the benefits of the active and inactive members to the new Defined Contribution Provident Fund.
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## Benefit structure

The actuarial valuation is based on the benefits as defined in the Fund's legal documents at the valuation date.

A summary of these benefits is set out in **Appendix 1**.

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# Actuarial Funding Valuation as at 30/9/2022

## Principles of Funding

**Pensions vocabulary** Law 210(I)/2020 includes some pensions terms, including the concept of technical provisions.  
Here is a summary of the main terms now in use, further details are set out in the Glossary:

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<b>Technical Provisions</b>	The target level of assets that the Administrative Committee following consultation with the Employer decide is appropriate to meet promised benefits.
<b>Funding Objective</b>	To hold sufficient and appropriate assets to meet the <b>Technical Provisions</b> .
<b>Funding Principles</b>	A set of principle for meeting the <b>Funding Objective</b> .
<b>Recovery Plan</b>	A document summarising a plan of action for correcting a <b>shortfall</b> over an agreed period.
<b>Schedule of Contributions</b>	A schedule setting out what contributions are payable, and when.

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**Principles of Funding** The Administrative Committee and Company are required to agree on three principles:

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### Principle 1:

#### **What technical provisions to target?**

To calculate the **technical provisions**:

- For each year into the future, the benefits paid out by the Fund are estimated. This is generally considered in real terms for the majority of cashflows, which are linked to inflation (if applicable).
- A target level of assets is agreed on, that is appropriate to meet the expected benefit payments. The conventional approach here is to 'discount back' the expected benefit payments to the valuation date, using an agreed rate of interest known as the **discount rate**.

These 2 steps require a chosen method and assumptions (e.g. how long members live) in order to arrive at a value for the **technical provisions**.

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### Principle 2:

#### **What contributions to pay for future benefits?**

There are several funding methods recognised by the actuarial profession. These result in different calculations of the cost of new final salary benefits.

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### Principle 3:

#### **How to address any shortfall?**

A decision must be taken on how any **shortfall** is addressed.

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**Purpose of funding** The primary purpose of funding is to provide members with more security for their pensions than if they relied on their employer to pay them directly.

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**Setting the funding objective** Several factors should be taken into account to set the funding objective:

- The purpose of funding the Fund.
- An acceptable level of risk.
- The requirements of the Fund's Trust Deed and Rules.

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**Legal Requirements** As per the requirements of Law 10(I)/2020:

- *Ο υπολογισμός των τεχνικών αποθεματικών διενεργείται και βεβαιώνεται από αναλογιστή επί τη βάσει αναλογιστικών μεθόδων αναγνωρισμένων από τον Έφορο με Οδηγία, σύμφωνα με τις ακόλουθες αρχές:*
  - (α) Το ελάχιστο ποσό των τεχνικών αποθεματικών υπολογίζεται με επαρκώς συνετή αναλογιστική αποτίμηση, λαμβανομένων υπόψη όλων των υποχρεώσεων για παροχές και των εισφορών, σύμφωνα με τους συνταξιοδοτικούς διακανονισμούς του ΙΕΣΠ.*
  - (β) Το κατά την παράγραφο (α) ποσό πρέπει αφενός να επαρκεί για να εξακολουθήσουν να καταβάλλονται οι ήδη καταβαλλόμενες συντάξεις και λοιπές παροχές, αφετέρου δε να αντικατοπτρίζει τις υποχρεώσεις που απορρέουν από τα σωρευμένα δικαιώματα των μελών επί των συνταξιοδοτικών παροχών.*
  - (γ) Οι οικονομικές και αναλογιστικές παραδοχές που χρησιμοποιούνται για την εκτίμηση των υποχρεώσεων, επιλέγονται με σύνεση, λαμβάνοντας υπόψη, όπου αρμόζει, κατάλληλο περιθώριο ανεπιθύμητων αποκλίσεων.*
  - (δ) τα μέγιστα χρησιμοποιούμενα επιτόκια επιλέγονται επίσης με σύνεση και ορίζονται σύμφωνα με τους κανόνες που ισχύουν στη Δημοκρατία, λαμβάνοντας υπόψη:*
    - (i) την απόδοση των αντίστοιχων στοιχείων του ενεργητικού του ΙΕΣΠ και τις προβλεπόμενες μελλοντικές αποδόσεις των επενδύσεων,*
    - (ii) τις αποδόσεις των αγορών υψηλής ποιότητας ομολόγων, κρατικών ομολόγων, ομολόγων του Ευρωπαϊκού Μηχανισμού Σταθερότητας, ομολόγων της Ευρωπαϊκής Τράπεζας Επενδύσεων (ΕΤΕπ) ή ομολόγων του Ευρωπαϊκού Ταμείου Χρηματοοικονομικής Σταθερότητας, ή*
    - (iii) συνδυασμό των υποπαραγράφων (i) και (ii)*

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**The agreed funding target / technical provisions** Pension fund liabilities are a series of future cash payments. Other than immediate and deferred annuities provided by an insurance company, the assets that would provide the closest match to these cash flows are bonds of governments from the same area as the liability payments. Hence a **funding target** could be equal to the **present value** of the expected payments discounted at the market yields on government bonds of appropriate term. The expected payments for active members would relate to pensionable service up to the valuation date and would include an allowance for expected future increases to the Pensionable Salary (if relevant).

The **funding target** could be calculated using the approach described above. However, it is common for funded occupational pension funds to

hold assets less than the full amount of the liabilities valued in this way. Instead, the Company will set a **funding target** at a lower level.

**The Administrative Committee of the Fund may decide to set the discount rate by reference to the single "spot" yield on the AAA-rated euro area central government bonds yield curve at the duration of the liabilities (i.e. 21 years), plus a margin of 100bps to allow for future expected returns of the current investment strategy.**

As such, the discount rate is set at **3,20% pa**.

The methodology of setting the discount rate is described in detail in **Appendix 2**.

The **funding target** is therefore calculated as the **present value** of the expected payments (as described above) discounted at the rate derived above. It should be noted that neither investing in assets with a higher expected return nor lowering the **funding target** reduces the cost of providing the promised benefits. Such assets bear a higher risk of under-performance which balances the higher expected returns. Other things being equal, if the **funding target** is lower, the Company will pay:

- Lower contributions in the short term; but
- Higher contributions (than would otherwise be payable) thereafter.

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**Speed of reaching funding target**

An adjustment to the contribution rate will be needed to eliminate a **funding surplus** or a **funding deficit** over an agreed period of time. The overall contribution rate may allow for the amortisation of any past service surplus or deficit over the future working lifetime of the current active members.

The Administrative Committee can follow a faster method of recognizing the surplus or deficit if this is required.

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**Stability of contribution rate**

The contribution rate will remain stable before and after eliminating a **funding surplus** or a **funding deficit** if the funding objective remains unchanged and all assumptions made are borne out in practice. If the funding objective changes, then contribution rates are likely to change.

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**Membership data**

**Introduction**

The Advocates Pension Fund has supplied us with details of the Fund membership at the valuation date. We have carried out general checks on the quality of the data, and checked it against the data used at the previous valuation.

Please notify us if you have any reason to believe that the data we have used is incomplete or inaccurate.

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## Summary of membership data

The table below presents a summary of the scheme membership data as at 30/9/2022.

All amounts in EURO.

Data item	30/9/2022
Number of active members	4.583
- Average Age (years)	39,2
- Average Pensionable Service (years)	11,7
Number of inactive members	2.856
- Average Age (years)	40,1
- Average Pensionable Service (years)	5,0
Number of pensioners	260
- Average monthly pension	€671
- Average Age (years)	74,6
Number of dependents/beneficiaries	110
- Average monthly pension	€293
- Average Age (years)	70,1

## Fund Assets and Financial Development

### Market Values

The table below presents the market value of plan assets as provided to us by the Fund as at 30/9/2022.

All amounts in EURO.

Year ending	30/9/2022
Market value of Assets	79.877.209

### Cashflows during the year

As provided by the Fund, the following cash flows have occurred during the period 1/1/2022 – 30/9/2022.

All amounts in EURO.

Cash flow	1/1/2022 – 30/9/2022
Member Contributions	1.650.730
Stamp Contributions	3.535.543
Pension benefits	1.784.831
Lump Sum benefits	584.782
Expenses	225.000

### Note

We note that the assets used in this report are not based on audited accounts. We note that if the actual amounts differ from those set out in this report, the results of the valuation would change.

## Valuation Method & Assumptions

### Introduction

The benefit structure of the Fund, its membership and its assets at the valuation date are all known facts. However, the Fund's future finances also depend on uncertain factors such as future investment returns, pay/pension increases, rates of mortality and employee turnover.

Therefore, we need to make long-term assumptions, covering the period until all the present members have retired and all benefits arising from their membership have been paid.

### Key financial assumptions

The valuation results are sensitive to the choice of financial assumptions. The table below shows the key financial assumptions adopted for the current actuarial valuation.

Assumption	30/9/2022
Discount rate	3,20%
Pension increases	0,00%

**Appendix 2** discusses assumption selection in more detail.

### Key demographic assumptions

The table below shows the key demographic assumptions adopted for the current actuarial valuation.

Assumption	30/9/2022
Mortality	BVG2015
Normal Retirement Age	Service-related
Other pre-retirement exits	None

**Appendix 2** discusses assumption selection in more detail.

### Valuation Method

Different methods affect the pace of funding, but every method should end up with sufficient assets to meet the liabilities as they fall due (provided the assumptions prove to be right and recommended contributions are paid).

For schemes open to new entrants, the Projected Unit method can be used. This is one of the common methods used by actuaries to calculate a recommended contribution rate to the Fund. The method calculates the present value of the benefits expected to accrue to members over a period (often one year) following the valuation date. The present value is usually expressed as a % of the members' pensionable pay. It allows for projected future increases to pay through to retirement or date of leaving service (if applicable). Provided that the distribution of members remains stable, with new members joining to take the place of older leavers, the contribution rate calculated can be expected to remain stable, if all the other assumptions are borne out. If there are no new members, however, the average age will increase and the cost of benefits accruing will rise.

The method used for this valuation is the Projected Unit method.

### Actuarial Valuation Results at 30/9/2022

#### Past service position

The funding objective is to hold assets equal to the funding target. Thus, we compare the market value of assets with the value of past-service ongoing liabilities. The table below summarizes the past-service results.

Technical Provisions (EUR)	30/9/2022
Actives	(132.358.640)
In-actives	(22.831.666)
Pensioners	(24.023.766)
Dependents / Beneficiaries	(4.528.239)
<b>Total Funding Target / Technical Provisions</b>	<b>(183.742.311)</b>
<b>Market Value of Assets</b>	<b>79.877.209</b>
<b>Funding Surplus / (Deficit)</b>	<b>(103.865.102)</b>
<b>Funding Level</b>	<b>43,5%</b>

## Sensitivity Results

We have performed sensitivity analysis on the valuation assumptions, and the results are as follows:

Technical Provisions – Discount Rate	DR = 3,20% (central scenario)	DR = 3,70% (DR +0,5%)	DR = 2,70% (DR -0,5%)
Actives	(132.358.640)	(119.971.472)	(146.808.992)
In-actives	(22.831.666)	(20.006.574)	(26.218.094)
Pensioners	(24.023.766)	(23.071.836)	(25.046.536)
Dependents / Beneficiaries	(4.528.239)	(4.324.383)	(4.751.334)
<b>Funding Target / Technical Provisions</b>	<b>(183.742.311)</b>	<b>(167.374.265)</b>	<b>(202.824.956)</b>
<b>Market Value of Assets</b>	<b>79.877.209</b>	<b>79.877.209</b>	<b>79.877.209</b>
<b>Funding Surplus / (Deficit)</b>	<b>(103.865.102)</b>	<b>(87.497.056)</b>	<b>(122.947.747)</b>
<b>Funding Level</b>	<b>43,5%</b>	<b>47,7%</b>	<b>39,4%</b>

## Recovery Plan

### Definition

Where a valuation shows a **funding shortfall** against the **technical provisions**, the Administrative Committee must prepare a **recovery plan** setting out how they plan to meet the **funding objective**.

### Introduction

A recovery plan must be prepared by the Administrative Committee to satisfy the requirements of Article 26 of Law 10(I)/2020, after obtaining the advice of the Scheme Actuary.

The recovery plan follows the actuarial valuation of the scheme as at 30/9/2022 which has revealed a funding shortfall (technical provisions minus value of assets) of **€103.865.102**.

### Steps to be taken to ensure that the funding objective is met

To eliminate the funding shortfall, the Administrative Committee need to agree the **level** and **type** of contributions that will be paid into the Fund.

### Period in which the funding objective should be met

The Administrative Committee also need to agree the **period** over which the funding objective should be met.

Under the agreed recovery plan, if the assumptions made are borne out in practice and future scheme experience is as expected, then the funding shortfall must be eliminated within the chosen period.

The Administrative Committee should recognize that a longer recovery plan period may be appropriate where technical provisions reflect a particularly low risk approach. Conversely, the impact on scheme risk of adopting weaker technical provisions may result in the need for a proportionately shorter recovery plan period.

Recovery periods can be extended especially if additional security provided (see Alternative Financing section below).

### Recovery plan options

On the basis of our long-term assumptions there was, at the valuation date, a funding deficit of **€103.865.102**.

We have calculated the level of contributions required to finance the shortfall, assuming a return on assets equal to the discount rate, i.e. **3,20% pa**.

New entrants have been allowed in the recovery plan calculations (i.e. membership population has been projected to remain stable).

Furthermore, we have considered future expected expenses. An annual increase rate of 2,0% has been applied (i.e. in line with long-term future inflation expectations). We have not applied any increases to the expected future normal employee contributions and to the future stamps (δικηγορόσημα).

The duration of the Fund's liabilities has been calculated to be 21 years.

We present below the additional contributions required in order to finance the past service deficit and the cost of future service accrual (i.e. contributions over and above the normal employee contributions + δικηγορόσημα which are required to finance the deficit and to cover benefits being earned in the future).

	Recovery period = 30 years
Asset return = 3,20%	€8,7M p.a.

Assuming a recovery period of 30 years, an additional contribution of **EUR 8,7 million** will need to be paid on an annual basis for the next **30 years**, in order to finance fully the past service deficit and cover the future service accrual, including new joiners.

As per the latest information, the total annual contributions paid into the Fund were approximately EUR 6,9 million (i.e. employee contributions + δικηγορόσημα). The detailed financing plan projections are presented in the table below (in EUR millions):

Year End	Technical Provisions	Expected Benefit Payments + Expenses	Expected Employee Contributions + Δικηγορόσημα	Additional Contributions	Assets	Funding Level
2022	183,7	-	-	-	79,9	43%
2023	185,9	11,7	6,9	8,7	86,5	47%
2024	194,0	6,2	6,9	8,7	98,9	51%
2025	202,1	6,6	6,9	8,7	111,4	55%
2026	210,4	6,8	6,9	8,7	124,0	59%
2027	219,0	6,9	6,9	8,7	136,9	63%
2028	228,1	6,9	6,9	8,7	150,3	66%
2029	237,3	7,3	6,9	8,7	163,6	69%
2030	247,0	7,2	6,9	8,7	177,5	72%
2031	257,2	7,3	6,9	8,7	191,7	75%
2032	267,9	7,3	6,9	8,7	206,4	77%
2033	278,7	7,8	6,9	8,7	221,1	79%
2034	290,0	7,8	6,9	8,7	236,1	81%
2035	301,5	8,1	6,9	8,7	251,4	83%
2036	313,6	8,2	6,9	8,7	267,1	85%
2037	326,3	8,2	6,9	8,7	283,3	87%
2038	339,6	8,2	6,9	8,7	300,0	88%
2039	353,2	8,5	6,9	8,7	316,9	90%
2040	367,6	8,5	6,9	8,7	334,4	91%
2041	381,8	9,2	6,9	8,7	351,7	92%
2042	396,1	9,9	6,9	8,7	368,9	93%
2043	410,9	9,9	6,9	8,7	386,6	94%
2044	425,0	11,2	6,9	8,7	403,6	95%
2045	440,1	10,9	6,9	8,7	421,4	96%
2046	454,6	12,1	6,9	8,7	438,6	96%
2047	469,3	12,4	6,9	8,7	455,9	97%
2048	483,1	13,9	6,9	8,7	472,4	98%
2049	497,1	14,2	6,9	8,7	489,0	98%
2050	510,6	15,3	6,9	8,7	505,0	99%
2051	523,1	16,7	6,9	8,7	520,2	99%
2052	534,1	18,4	6,9	8,7	534,1	100%



## Scenario Modelling / Design Review

### Introduction

The section that follows includes an analysis of the two design reforms that were proposed by the Administrative Committee of the Fund. One scenario focuses on parametric changes to the existing benefits structure and the other scenario relates to a structural design reform. The impact of each examined amendment is quantified and compared against the current status.

### Scenario 1

#### *Maintain the current Defined Benefit design with parametric changes to member contributions*

### Introduction

Under this scenario, the following analysis has been performed:

- Calculation of (a) the scheme's technical provisions / funding level at the valuation date, (b) the future service contribution rates resulting from the funding objectives, method and assumptions, and (c) the past service deficit contributions for the purposes of the recovery plan.
- Calculation of the revised annual member contribution amount to achieve full funding at the end of the recovery period.

### Past service position / Funding Level

Technical Provisions (EUR)	30/9/2022
Actives	(132.358.640)
In-actives	(22.831.666)
Pensioners	(24.023.766)
Dependents / Beneficiaries	(4.528.239)
<b>Total Funding Target / Technical Provisions</b>	<b>(183.742.311)</b>
<b>Market Value of Assets</b>	<b>79.877.209</b>
<b>Funding Surplus / (Deficit)</b>	<b>(103.865.102)</b>
<b>Funding Level</b>	<b>43,5%</b>

### Recovery Plan

Year End	Technical Provisions	Expected Benefit Payments + Expenses	Expected Employee Contributions + Δικηγορόσημα	Additional Contributions	Assets	Funding Level
2022	183,7	-	-	-	79,9	43%
2023	185,9	11,7	6,9	8,7	86,5	47%
2024	194,0	6,2	6,9	8,7	98,9	51%
2025	202,1	6,6	6,9	8,7	111,4	55%
2026	210,4	6,8	6,9	8,7	124,0	59%
2027	219,0	6,9	6,9	8,7	136,9	63%
2028	228,1	6,9	6,9	8,7	150,3	66%
2029	237,3	7,3	6,9	8,7	163,6	69%
2030	247,0	7,2	6,9	8,7	177,5	72%
2031	257,2	7,3	6,9	8,7	191,7	75%
2032	267,9	7,3	6,9	8,7	206,4	77%
2033	278,7	7,8	6,9	8,7	221,1	79%
2034	290,0	7,8	6,9	8,7	236,1	81%
2035	301,5	8,1	6,9	8,7	251,4	83%
2036	313,6	8,2	6,9	8,7	267,1	85%
2037	326,3	8,2	6,9	8,7	283,3	87%
2038	339,6	8,2	6,9	8,7	300,0	88%
2039	353,2	8,5	6,9	8,7	316,9	90%
2040	367,6	8,5	6,9	8,7	334,4	91%

2041	381,8	9,2	6,9	8,7	351,7	92%
2042	396,1	9,9	6,9	8,7	368,9	93%
2043	410,9	9,9	6,9	8,7	386,6	94%
2044	425,0	11,2	6,9	8,7	403,6	95%
2045	440,1	10,9	6,9	8,7	421,4	96%
2046	454,6	12,1	6,9	8,7	438,6	96%
2047	469,3	12,4	6,9	8,7	455,9	97%
2048	483,1	13,9	6,9	8,7	472,4	98%
2049	497,1	14,2	6,9	8,7	489,0	98%
2050	510,6	15,3	6,9	8,7	505,0	99%
2051	523,1	16,7	6,9	8,7	520,2	99%
2052	534,1	18,4	6,9	8,7	534,1	100%

**Comments:**

- Funding Level as at 30/9/2022: 43,5%
- Currently, the total annual contributions payable into the Fund are estimated at EUR 6,9m (Employee Contributions of **EUR 2,2m** + Δικηγορόσημα of EUR 4,7m).
- Under the 30-year recovery plan, the total annual contributions should become EUR 15,6m (Employee Contributions of **EUR 10,9m** + Δικηγορόσημα of EUR 4,7m).
- Breakdown of required Employee Contributions income (expressed in annual terms and per member) in order to restore funding at 100% over the next 30 years.

Two additional columns have been added to present the sensitivity of the results to changes (+/- 50bps) in the underlying discount rate assumption:

Amounts	DR = 3,20%	DR = 3,70% (DR +0,5%)	DR = 2,70% (DR -0,5%)
Employee Contribution, per annum, per member	<b>EUR 2.400</b>	EUR 2.000	EUR 2.800

- Under this scenario, all related risks with the defined benefit design (as set out in **Appendix 3**) will continue to impact the actuarial solvency of the scheme and we strongly recommend the introduction of a mechanism that would monitor the funding plan regularly and trigger the necessary additional design reforms to restore funding to required levels, if necessary.

**Governance Structure**



## Scenario 2

**Maintain the current Defined Benefit design for pensioners/dependents. Immediate transition to a Defined Contribution Provident Fund for the active/inactive members.**

### Introduction

Under this scenario, the following analysis has been performed:

- Calculation of the scheme's technical provisions / funding level at the valuation date.
- Determination of the amount of assets that needs to be kept as a technical reserve in order to cover the Defined Benefit liabilities of the pensioners/dependents in the current Defined Benefit scheme.
- Calculation of the revised service-related unit price for the purposes of transferring the benefits of the active and inactive members to the new Defined Contribution Provident Fund.

### Pensioners & Dependents

- Under this scenario, the current Defined Benefit design is maintained for pensioners/dependents.
- An amount of **EUR 28,6m** from the assets (EUR 24,0m relating to pensioners and EUR 4,6m relating to dependents) needs to be kept as a technical reserve in order to cover the Defined Benefit liabilities of the pensioners/dependents in the current Defined Benefit scheme.
- For this group of members, all related risks with the defined benefit design (as set out in **Appendix 3**) will continue to impact the actuarial solvency of the scheme and we strongly recommend the introduction of a mechanism that would monitor the funding plan regularly and trigger the necessary additional design reforms to restore funding to required levels, if necessary.
- The **Past service position / Funding Level** of the Fund is as follows:

Technical Provisions (EUR)	30/9/2022
Actives	-
In-actives	-
Pensioners	(24.023.766)
Dependents / Beneficiaries	(4.528.239)
<b>Total Funding Target / Technical Provisions</b>	<b>(28.552.005)</b>
<b>Market Value of Assets</b>	<b>28.552.005</b>
<b>Funding Surplus / (Deficit)</b>	<b>-</b>
<b>Funding Level</b>	<b>100,0%</b>

### Actives & Inactives

- This scenario implies an immediate transition to a Defined Contribution Provident Fund for the active/inactive members.
- As noted above, an amount of EUR 28,6m from the assets needs to be used to cover the Defined Benefit liabilities of the pensioners/dependents.
- The residual amount of **EUR 51,3m** from the assets (i.e. EUR 79,9m – EUR 28,6m) needs to be distributed to the individual Defined Contribution Provident Fund accounts of the active/inactive members, based on the following formula:

$$\text{Value of Benefit} = \text{Number of Units} \times \text{Unit Price}, \text{ where}$$

*Number of Units = Contributory Service until 30/9/2022 (in months)*

**Unit Price = EUR 63**

Example:

*Active member with 15 years of service*

*Lump Sum Settlement: 15x12x63 = €11.340*

- We present below the sensitivity of the Unit Price results to changes (+/- 50bps) in the underlying discount rate assumption:

<b>Amounts</b>	<b>DR = 3,20%</b>	<b>DR = 3,70%</b> <b>(DR +0,5%)</b>	<b>DR = 2,70%</b> <b>(DR -0,5%)</b>
Unit Price	<b>EUR 63</b>	EUR 65	EUR 62

**Comments:**

- Under this scenario, the pensioners/dependents are covered in full, whereas the active/inactive members receive an amount equal to 33,1%% of the Defined Benefit liability.
- New members will be joining the Defined Contribution Provident Fund.
- The exact parameters of the Defined Contribution Provident Fund have not been examined as part of this report.

**Governance Structure**



## Appendix 1: Summary of plan provisions

<b>Εισαγωγικά</b>	<p>Το Ταμείο Συντάξεως Δικηγόρων καλύπτει όλους τους δικηγόρους, οι οποίοι ασκούν το επάγγελμα, περιλαμβανομένου των Νομικών Λειτουργιών. Το Ταμείο χρηματοδοτείται μέσω εισφορών των μελών του, και παρέχει ωφελήματα σε περίπτωση αφυπηρέτησης, θανάτου ή ανικανότητας για εργασία.</p>
<b>Υπαγωγή</b>	<p>Το Ταμείο Συντάξεως Δικηγόρων καλύπτει κάθε Δικηγόρο που ασκεί το επάγγελμά του (εγγεγραμμένος στο Μητρώο Δικηγόρων), και κάθε Νομικό Λειτουργό ο οποίος διορίστηκε στη Νομική Υπηρεσία κατά την περίοδο από την 14η Σεπτεμβρίου 1966 μέχρι την 18η Μαρτίου 2005 και κατέβαλε εισφορές στο Ταμείο προτού διαγραφεί από αυτό. Σε περίπτωση διορισμού σε δικαστικό ή δημόσιο λειτούργημα (εξαιρουμένου του Νομικού Λειτουργού), το Μέλος παύει να είναι εισφορέας και θεωρείται ότι απεσύρθη από το επάγγελμά του.</p> <p>Το Ταμείο καλύπτει Δικηγόρους και Εισαγγελείς, ενώ δεν καλύπτει Δικαστές, το Γενικό Εισαγγελέα και το Βοηθό Γενικό Εισαγγελέα.</p>
<b>Συντάξιμες Αποδοχές</b>	<p>Οι παροχές δεν σχετίζονται με τις απολαβές των Μελών.</p>
<b>Συντάξιμη Υπηρεσία</b>	<p>Οι συμπληρωμένοι μήνες ασκήσεως του δικηγορικού επαγγέλματος μετ'εισφορών.</p>
<b>Σύνταξη Αφυπηρέτησης</b>	<p>Εισφορέας, ο οποίος παύει να ασκεί το επάγγελμά του, δικαιούται να λάβει πλήρη σύνταξη αφυπηρέτησης, νοουμένου τηρεί μίαν από τις ακόλουθες προϋποθέσεις:</p> <ul style="list-style-type: none"><li>■ Συμπλήρωση σαρανταετούς ασκήσεως του επαγγέλματός του, ανεξαρτήτως της ηλικίας του.</li><li>■ Συμπλήρωση τριακοπενταετούς ασκήσεως του επαγγέλματός του και συμπλήρωση της ηλικίας των εξήντα πέντε ετών. Εισφορέας, ο οποίος συμπλήρωσε τριακοπενταετή άσκηση του επαγγέλματός του, αλλά δεν έχει συμπληρώσει το εξηκοστό πέμπτο (65<sup>ο</sup>) έτος της ηλικίας του, δικαιούται να συνταξιοδοτηθεί, με μειωμένη όμως σύνταξη της άλλως πως υπολογισθείσας, ως ακολούθως:<ul style="list-style-type: none"><li>– κατά 30% της υπολογισθείσας, αν συμπλήρωσε το εξηκοστό (60<sup>ο</sup>) έτος της ηλικίας του,</li><li>– κατά 24% της υπολογισθείσας, αν συμπλήρωσε το εξηκοστό πρώτο (61<sup>ο</sup>) έτος της ηλικίας του,</li><li>– κατά 18% της υπολογισθείσας, αν συμπλήρωσε το εξηκοστό δεύτερο (62<sup>ο</sup>) έτος της ηλικίας του,</li><li>– κατά 12% της υπολογισθείσας, αν συμπλήρωσε το εξηκοστό τρίτο (63<sup>ο</sup>) έτος της ηλικίας του, και</li><li>– κατά 6% της υπολογισθείσας, αν συμπλήρωσε το εξηκοστό τέταρτο (64<sup>ο</sup>) έτος της ηλικίας του.</li></ul></li><li>■ Συμπλήρωση εικοσιπενταετούς ασκήσεως του επαγγέλματός του και συμπλήρωση της ηλικίας των εβδομήντα ετών. Εισφορέας, ο οποίος έχει συμπληρώσει εικοσιπενταετή άσκηση του επαγγέλματός του, αλλά δεν έχει συμπληρώσει το εβδομηκοστό (70<sup>ο</sup>) έτος της ηλικίας του, δικαιούται να συνταξιοδοτηθεί, με μειωμένη όμως σύνταξη της άλλως πως κανονικά υπολογισθείσας, ως ακολούθως:</li></ul>

- κατά 30% της υπολογισθείσας, αν συμπλήρωσε το εξηκοστό πέμπτο (65<sup>ο</sup>) έτος της ηλικίας του,
- κατά 24% της υπολογισθείσας, αν συμπλήρωσε το εξηκοστό έκτο (66<sup>ο</sup>) έτος της ηλικίας του,
- κατά 18% της υπολογισθείσας, αν συμπλήρωσε το εξηκοστό έβδομο (67<sup>ο</sup>) έτος της ηλικίας του,
- κατά 12% της υπολογισθείσας, αν συμπλήρωσε το εξηκοστό όγδοο (68<sup>ο</sup>) έτος της ηλικίας του, και
- κατά 6% της υπολογισθείσας, αν συμπλήρωσε το εξηκοστό ένατο (69<sup>ο</sup>) έτος της ηλικίας του.

Η καταβλητέα σύνταξη υπολογίζεται προς ένα τετρακοσιοστό ογδοηκοστό (1/480) των εννέα χιλιάδων τριακοσίων πενήντα ευρώ (€9.350) για κάθε συμπληρωμένο μήνα ασκήσεως του επαγγέλματος μετ' εισφορών.

Επιπλέον, παρέχεται χορήγηση 60% επί της βασικής μηνιαίας σύνταξης δυνάμει του Καν. 7(α) και της απόφασης του Δ.Σ. ημερομηνίας 5/11/97.

Η Διαχειριστική Επιτροπή δύναται, αν το επιτρέπει η οικονομική κατάσταση του Ταμείου, να χορηγεί δεκάτη τρίτη ή και δεκάτη τέταρτη μηνιαία σύνταξη.

### Σύνταξη Αφυπηρέτησης (πρόσφατες αποφάσεις)

- Αφαίρεση ολόκληρου του επιπλέον χορηγήματος επί της βασικής μηνιαίας σύνταξης.
- Αποκοπή της δέκατης τρίτης και δέκατης τέταρτης μηνιαίας σύνταξης.

### Εφάπαξ Αφυπηρέτησης

Σε περίπτωση που εισφορέας αποσύρεται από την άσκηση του επαγγέλματός του και πληροί τις προϋποθέσεις που ισχύουν για τη σύνταξη αφυπηρέτησης, δικαιούται να λάβει εφάπαξ ποσό ίσον με εξακόσια ευρώ (€600) ανά έτος άσκησης του επαγγέλματος με εισφορές.

Το εφάπαξ ποσό είναι μειωμένο κατ' ανάλογα αντίστοιχο ποσοστό εκείνου της υπολογισθείσας καταβλητέας μηνιαίας σύνταξης αφυπηρέτησης.

### Παράδειγμα Σύνταξης Αφυπηρέτησης

#### Στοιχεία

- Ηλικία Αφυπηρέτησης = 65
- Έτη εξάσκησης επαγγέλματος με εισφορές (ΕΕΕ) = 35
- Συντάξιμη Υπηρεσία (ΣΥ) = 420 Μήνες

#### Υπολογισμοί

- Μηνιαία Σύνταξη =  $(1/480) \times 9.350 \times \text{ΣΥ} / 12 = (1/480) \times 9.350 \times 420 \times / 12 = \mathbf{681,77}$
- Εφάπαξ Αφυπηρέτησης =  $600 \times \text{ΣΥ} / 12 = 600 \times 420 / 12 = \mathbf{21.000}$

### Σύνταξη Αναπηρίας

Εισφορέας δικαιούται να λάβει σύνταξη αναπηρίας, νοουμένου έχει συμπληρώσει δεκαπενταετή υπηρεσία ως δικηγόρος και έχει καταστεί ανίκανος να συνεχίσει την άσκηση του επαγγέλματός του λόγω ανιάτου ασθενείας ή οποιασδήποτε πνευματικής ή σωματικής αναπηρίας.

Η καταβλητέα σύνταξη υπολογίζεται προς ένα τετρακοσιοστό ογδοηκοστό (1/480) των εννέα χιλιάδων τριακοσίων πενήντα ευρώ (€9.350) για κάθε συμπληρωμένο μήνα ασκήσεως του επαγγέλματος μετ' εισφορών.

Επιπλέον, παρέχεται χορήγηση 60% επί της βασικής μηνιαίας σύνταξης δυνάμει του Καν. 7(α) και της απόφασης του Δ.Σ. ημερομηνίας 5/11/97.



Η Διαχειριστική Επιτροπή δύναται, αν το επιτρέπει η οικονομική κατάσταση του Ταμείου, να χορηγεί δεκάτη τρίτη ή και δεκάτη τέταρτη μηνιαία σύνταξη.

Εισφορέας ηλικίας άνω των εβδομήντα ετών, ο οποίος έχει συμπληρώσει δεκαπέντε αλλά όχι είκοσι πέντε έτη ασκήσεως του επαγγέλματος μετ' εισφορών, δεν δικαιούται σύνταξη αναπηρίας.

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**Σύνταξη Αναπηρίας  
(πρόσφατες  
αποφάσεις)**

- Αφαίρεση ολόκληρου του επιπλέον χορηγήματος επί της βασικής μηνιαίας σύνταξης.
- Αποκοπή της δέκατης τρίτης και δέκατης τέταρτης μηνιαίας σύνταξης.

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**Εφάπαξ Αναπηρίας**

Σε περίπτωση που εισφορέας αποσύρεται από την άσκηση του επαγγέλματός του και πληροί τις προϋποθέσεις που ισχύουν για τη σύνταξη αναπηρίας, δικαιούται να λάβει εφάπαξ ποσό ίσον με εξακόσια ευρώ (€600) ανά έτος άσκησης του επαγγέλματος με εισφορές.

Σε περίπτωση που ο εισφορέας δεν έχει συμπληρώσει δεκαπενταετή υπηρεσία μετ' εισφορών και καθίσταται ανίκανος να συνεχίσει την άσκηση του δικηγορικού επαγγέλματος λόγω ανιάτου ασθενείας ή οποιασδήποτε πνευματικής ή σωματικής αναπηρίας, η Διαχειριστική Επιτροπή δύναται να καταβάλει στον εισφορέα εφάπαξ χορήγημα μη υπερβαίνον το διπλάσιο του ποσού των υπ'αυτού καταβληθεισών εισφορών στο Ταμείο.

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**Σύνταξη σε περίπτωση  
Θανάτου**

Σε περίπτωση θανάτου εισφορέα με δεκαπενταετή τουλάχιστο άσκηση του δικηγορικού επαγγέλματος μετ' εισφορών, πληρώνεται σύνταξη χηρείας/ορφάνιας, ανάλογα της περίπτωσης.

Η καταβλητέα σύνταξη υπολογίζεται προς ένα τετρακοσιοστό ογδοηκοστό (1/480) των εννέα χιλιάδων τριακοσίων πενήντα ευρώ (€9.350) για κάθε συμπληρωμένο μήνα ασκήσεως του επαγγέλματος μετ' εισφορών.

Επιπλέον, παρέχεται χορήγημα 60% επί της βασικής μηνιαίας σύνταξης δυνάμει του Καν. 7(α) και της απόφασης του Δ.Σ. ημερομηνίας 5/11/97.

Καταβάλλεται το 50% της σύνταξης εάν υπάρχει μόνον ένας δικαιούχος. Το ποσοστό αυξάνεται ανάλογα με τον αριθμό των δικαιούχων.

Η Διαχειριστική Επιτροπή δύναται, αν το επιτρέπει η οικονομική κατάσταση του Ταμείου, να χορηγεί δεκάτη τρίτη ή και δεκάτη τέταρτη μηνιαία σύνταξη.

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**Σύνταξη σε περίπτωση  
Θανάτου  
(πρόσφατες  
αποφάσεις)**

- Αφαίρεση ολόκληρου του επιπλέον χορηγήματος επί της βασικής μηνιαίας σύνταξης.
- Αποκοπή της δέκατης τρίτης και δέκατης τέταρτης μηνιαίας σύνταξης.

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**Εφάπαξ σε περίπτωση  
Θανάτου**

Σε περίπτωση θανάτου εισφορέα που πληροί τις προϋποθέσεις που ισχύουν για τη σύνταξη χηρείας/ορφάνιας, πληρώνεται εφάπαξ ποσό ίσον με εξακόσια ευρώ (€600) ανά έτος άσκησης του επαγγέλματος με εισφορές, στη(ο) χήρα(ο) και τα τέκνα του αποβιώσαντος εισφορέα.

Σε περίπτωση θανάτου εισφορέα που δεν έχει συμπληρώσει δεκαπενταετή υπηρεσία μετ' εισφορών, η Διαχειριστική Επιτροπή δύναται να καταβάλει στη(ο) χήρα(ο) και τα τέκνα εφάπαξ χορήγημα μη υπερβαίνον το διπλάσιο του ποσού των προσωπικών εισφορών του αποβιώσαντος στο Ταμείο.

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**Εισφορές**

Εισφορέας καθίσταται κάθε δικηγόρος που ασκεί το επάγγελμά του και είναι εγγεγραμμένος στο Μητρώο Δικηγόρων. Σε περίπτωση διορισμού σε

δικαστικό ή δημόσιο λειτούργημα (εξαιρουμένου του Νομικού Λειτουργού) ή σε περίπτωση διαγραφής από το Μητρώο Δικηγόρων, το Μέλος παύει να είναι εισφορέας και θεωρείται ότι απεσύρθη της ασκήσεως του επαγγέλματός του.

Το ποσό της μηνιαίας εισφοράς ανέρχεται:

- στα σαράντα ευρώ (€40) για εισφορείς που είναι είδη εγγεγραμμένοι στο Μητρώο Δικηγόρων, ή
  - στα πενήντα ευρώ (€50) για εισφορείς που δεν είναι εγγεγραμμένοι στο Μητρώο Δικηγόρων (για σκοπούς εγγραφής στο Μητρώο Δικηγόρων και εξασφάλιση της άδειας εξασκήσεως επαγγέλματος).
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## Appendix 2: Valuation assumptions

### Introduction

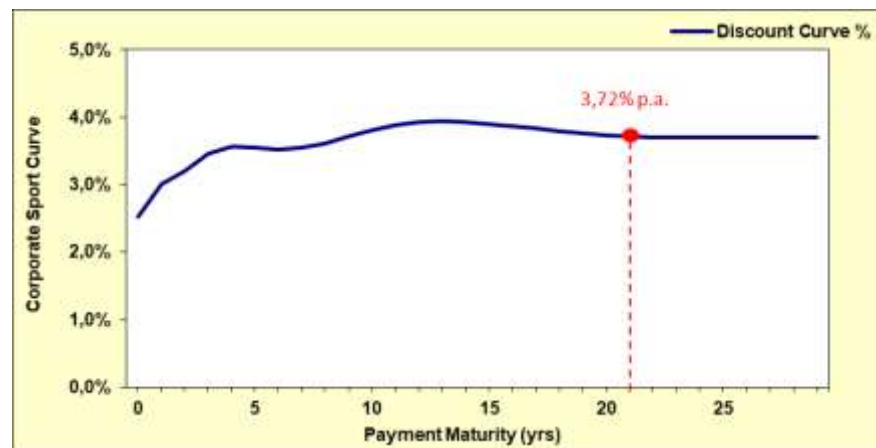
The assumptions used for assessing the long-term ongoing funding target are summarized below. Greater importance should be attached to the valuation assumptions as a whole rather than to the individual elements. More importantly, the differences between the financial assumptions have a greater effect on valuation results than the absolute levels of each item.

The financial assumptions have the most significant effect on valuation results and are thus described first.

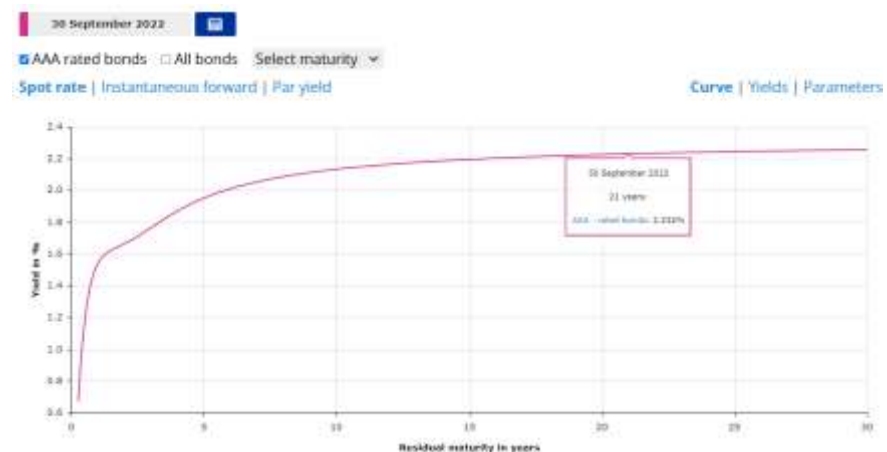
### Discount rate

The discount rate is the valuation assumption with the widest range of choices. It is used to translate the estimated future benefit payments from the Fund into a single figure which represents the amount that the Fund needs to hold today to provide them.

The chart below shows the full Aon Eurozone Yield Curve as at 30 September 2022.



The chart below shows the Euro area yield curve as at 30 September 2022 as published by the ECB, which is based on AAA-rated euro area central government bonds.



All charts show the point on the yield curves with approximately the same duration as the Fund's liabilities (i.e. 21 years). The rates are also summarized in the following table:

Yield Curve	30/9/2022
<b>Aon Eurozone Yield Curve (AA-rated euro area corporate bonds)</b>	3,72% p.a.
<b>Euro Area Yield Curve (AAA-rated euro area central govt bonds)</b>	2,23% p.a.

As per the requirements of Law 10(I)/2020, the maximum rates of interest used shall be chosen prudently and determined in accordance with any relevant rules of the home Member State. These prudent rates of interest shall be determined by taking into account:

- the yield on the corresponding assets held by the institution and the future investment returns, and/or
- the market yields of high-quality or government bonds.

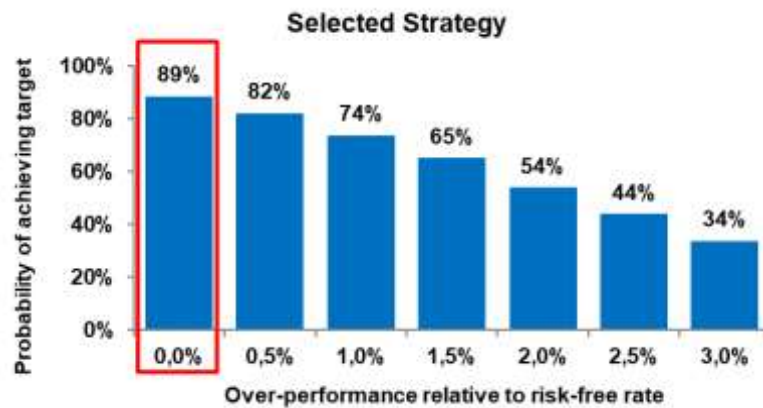
Thus, the full spectrum of choices for setting the discount rate assumption is presented in the following charts:

	<b>Government bond yields</b>	<ul style="list-style-type: none"> <li>• Could construct portfolio of Government bonds</li> <li>• <b>Eliminate all investment risk (i.e. risk-free rate)</b></li> </ul>
	<b>Corporate bond yields</b>	<ul style="list-style-type: none"> <li>• Could construct portfolio of Corporate bonds</li> <li>• <b>Eliminate most investment risk, but not risk of default</b></li> <li>• Used for accounting purposes</li> </ul>
	<b>Bond yields plus allowance for scheme assets to outperform bonds</b>	<ul style="list-style-type: none"> <li>• Allows for scheme assets to outperform bonds by investing in other assets</li> <li>• <b>Allowable</b> (depending on scheme's investment policy) but the Administrative Committee need to satisfy themselves of funding risks</li> </ul>

	<b>Government bond yields</b>	<ul style="list-style-type: none"> <li>• Adopt the <b>AAA-rated euro area central government bonds yield curve</b> issued by the European Central Bank (ECB).</li> <li>• Implied single <b>Discount Rate</b> according to the duration of the Fund's liabilities: <ul style="list-style-type: none"> <li>➢ <b>2,2% p.a.</b></li> </ul> </li> </ul>
	<b>Corporate bond yields</b>	<ul style="list-style-type: none"> <li>• Adopt the market yields of a <b>scheme-specific high-quality corporate bond liability proxy</b>.</li> <li>• Implied single <b>Discount Rate</b> derived from a basket of AA Eurozone Corporate bonds fit on the Fund liability cash flow profile (as per the IAS19 Yield Curve approach): <ul style="list-style-type: none"> <li>➢ <b>3,7% p.a.</b></li> </ul> </li> </ul>
	<b>Bond yields plus allowance for scheme assets to outperform bonds</b>	<ul style="list-style-type: none"> <li>• Adopt the yield on the corresponding assets held by the scheme and the future investment returns.</li> <li>• Implied single <b>Discount Rate</b> as a result of the implementation of the proposed long-term investment strategy: <ul style="list-style-type: none"> <li>➢ <b>4,5% p.a.</b></li> </ul> </li> </ul>

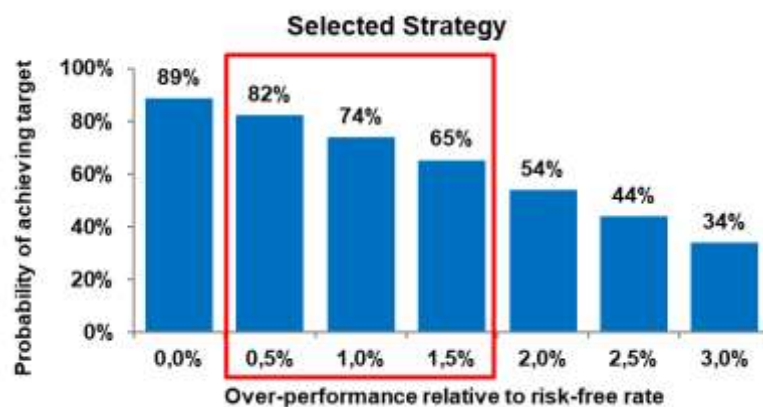
The long-term investment strategy as outlined in the Statement of Investment Principles is broadly 70% income assets (60% bonds, 10% cash) and 30% growth assets (25% global equities, 5% infrastructure). The long-term investment strategy of the Fund has not been implemented yet.

At 30 September 2022, it has been calculated that, over the next 10 years, the Fund's assets as per the long-term investment strategy have an expected return of 2,3% p.a. in excess of AAA-rated Eurozone government bond yields (i.e. 4,5% vs 2,2%) and the probability that they outperform these yields over this period is around 89%, as displayed on the following chart.



In assessing the level of prudence in the discount rate, it is useful for the Administrative Committee to consider the question "What is the probability of the Fund's assets returning X% p.a. above the rate of increase in the Fund's liabilities (assuming they increase in line with government bond yields)?"

Based on the Fund's strategic asset allocation, Aon's "Capital Market Assumptions" at 30 September 2022 and Aon's projection methodology, we have assessed that the likelihood of the Fund's assets returning at least 0,5%/1,0%/1,5% p.a. above the increase in the Fund's liabilities is of the order of 82%/74%/65% over the next 10 years (as shown in the diagram below).



Based on all of the above, we have set the discount rate by reference to the single "spot" yield on the AAA-rated euro area central government bonds yield curve at the duration of the liabilities (i.e. 21 years), plus a margin of 100bps to allow for future expected returns of the current investment strategy, leading to a discount rate assumption of **3,20% pa** (i.e. 2,2% + 1,0%).

**Pension Increases** Increases are not applied on pensions in payment and pensions in deferment as per the Fund rules.  
We have thus used a pension increases assumption of **0,00% pa**.

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**Mortality** We have used a general mortality table called BVG2015 which is based on Swiss mortality (this is the new version of the EVK2000 life tables). We believe this table is a reasonable representation of expected mortality for Cypriot employees. The expected life for a male and female aged 65 under this table is 85,24 and 87,34 respectively.

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**Normal Retirement Age**

- Immediate retirement for members who have completed 40 years of contributory service.
- Age 65 for members who have completed 35 years of contributory service.
- Age 70 otherwise.

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**Other Exits from Service** We have adopted a **nil** assumption for other pre-retirement exits (like disability, voluntary withdrawals, redundancy).

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The table below summarises the assumptions adopted as at 30/9/2022:

<b>Assumptions</b>	<b>30/9/2022</b>
Discount Rate	3,20%
Pension Increases	0,00%
Mortality	BVG2015
Normal Retirement Age	Service -related
Other pre-retirement exits	None

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## Appendix 3: Risks relevant to Defined Benefit schemes

### Investment Risk

In a defined benefit pension plan the scheme is exposed to **investment risk**. The impact of this risk is driven by:

- Extent to which the liabilities and assets are 'matched'
- Returns and volatility of the asset classes invested in

A relatively high level of cash exposure and unmatched strategy is likely to expose the Fund to significant levels of investment risk. Proper Asset-Liability Management and Implementation could reduce this risk.

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### Interest Rate Risk

In a defined benefit pension plan the scheme is exposed to **interest rate risk**. The impact of this risk is driven by changes in interest rates and to the level of matching between assets and liabilities. Interest rates impact both the accounting valuation and typically the funding valuation of a defined benefit plan.

As interest rates rise/fall, the valuation of the defined benefit pension liabilities will decrease/increase, unless offset by similar decreases/increases in the value of the assets.

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### Inflation Risk

In a defined benefit pension plan the scheme is exposed to **inflation risk**. The impact of this risk is driven by the annual level of inflation, changes to the long-term expectations for inflation rates and the level of matching between the assets and liabilities.

In general, annual levels of inflation drive on year-on-year increases in benefits payable and accrual/revaluation. Pension increases are linked to inflation, sometimes subject to a cap. Also, salary increases are directly influenced by the levels of inflation. The assumptions for both pension and salary increases are derived with reference to expected inflation.

The Fund is not exposed to such risks, since the benefit is not linked to salary and no increases are granted to pensions.

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### Salary Increase Risk

In a defined benefit pension plan the scheme carries the **risk of high salary increases** in respect of the liabilities for active members.

Annual levels of salary increases drive year-on-year increases in benefit accrual under a final salary pension scheme. As expected long-term future salary increases rise, the valuation of the defined benefit pension liabilities will increase, unless offset by similar increases in assets.

The Fund is not exposed to such risks, since the benefit is not linked to salary.

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### Risk of changes in funding regulations

In a defined benefit pension plan the scheme carries the risk that **funding regulations change**. Changes in funding regulations could impact the level of technical provisions and the levels/timing of contributions required.

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## Appendix 4: Glossary

<b>Discount rate</b>	This is used to place a <b>present value</b> on a future payment. A 'risk-free' <b>discount rate</b> is usually derived from the investment return achievable by investing in government gilt-edged stock. A <b>discount rate</b> higher than 'risk-free' rate is often used to allow for some of the extra investment return that is expected by investing in assets other than gilts.
<b>Funding surplus/deficit</b>	This is the value of assets less the funding target. If the funding target is greater than the value of assets, then the shortfall is called the <b>funding deficit</b> .
<b>Funding ratio</b>	This is the ratio of the value of assets to the <b>funding target</b> .
<b>Funding target</b>	An assessment of the present value of the benefits that will be paid from the scheme in the future, normally based on pensionable service prior to the valuation date.
<b>Present value</b>	Actuarial valuations involve projections of pay, pensions and other benefits into the future. To express the value of the projected benefits in terms of a cash amount at the valuation date, the projected amounts are discounted back to the valuation date by a <b>discount rate</b> . This value is known as the <b>present value</b> .
<b>Projected unit method</b>	This is one of the common methods used by actuaries to calculate a recommended contribution rate to the Fund. The method calculates the <b>present value</b> of the benefits expected to accrue to members over a period (often one year) following the valuation date. The <b>present value</b> is usually expressed as a percentage of the members' pensionable pay. It allows for projected future increases to pay through to retirement or date of leaving service. Provided that the distribution of members remains stable, with new members joining to take the place of older leavers, the contribution rate calculated can be expected to remain stable, if all the other assumptions are borne out. If there are no new members, however, the average age will increase and the cost of benefits accruing will rise.
<b>Prudent</b>	Prudent assumptions are assumptions that, if the Scheme continues on an ongoing basis, are more likely to overstate than understate the amount of money actually required to meet the cost of the benefits.
<b>Recovery plan</b>	Where a valuation shows a <b>funding shortfall</b> against the <b>technical provisions</b> , the Administrative Committee must prepare a <b>recovery plan</b> setting out how they plan to meet the <b>statutory funding objective</b> .

## Appendix 5: Legal Framework

### Provisions of Law 10(I)/2020

The law on the activities and supervision of institutions for occupational retirement provision, Law 20(I)/2020 was issued on 10 February 2020 for the purpose of harmonizing national legislation with the EU Directive 2016/2341.

We set below extracts from the legislation for ease of reference. Amongst others, the Law defines the following in Article 2:

- **«ίδρυμα επαγγελματικών συνταξιοδοτικών παροχών»**, ή **«ΙΕΣΠ»** σημαίνει το ίδρυμα το οποίο λειτουργεί, ανεξαρτήτως της νομικής του μορφής, σε κεφαλαιοποιητική βάση και
  - a) ιδρύεται, ξεχωριστά από οποιαδήποτε χρηματοδοτούσα επιχείρηση ή επαγγελματική ένωση, με στόχο να χορηγεί συνταξιοδοτικές παροχές στο πλαίσιο μιας επαγγελματικής δραστηριότητας με βάση συμφωνία ή σύμβαση, η οποία έχει συναφθεί:
    - i. μεμονωμένα ή συλλογικά μεταξύ εργοδότη/ών και εργαζομένου/ων ή των αντίστοιχων εκπροσώπων τους ή-
    - ii. με αυτοτελώς εργαζομένους, μεμονωμένα ή συλλογικά.
  - b) ιδρύεται από επαγγελματικό σύλλογο, ο οποίος ασκεί κατά νόμο ρυθμιστικές αρμοδιότητες, ή από ή με συμφωνία με κατά νόμο εγγεγραμμένη επαγγελματική οργάνωση αυτοτελώς εργαζομένων, ξεχωριστά από τον εν λόγω σύλλογο ή οργάνωση, με στόχο να χορηγεί συνταξιοδοτικές παροχές στα μέλη του ή μέλη της, ανάλογα με την περίπτωση,

κατά το δίκαιο της Δημοκρατίας και κατά το δίκαιο του κράτους μέλους υποδοχής, προκειμένου περί ΙΕΣΠ που ασκεί διασυνοριακές δραστηριότητες, και το οποίο αναπτύσσει δραστηριότητες που συνδέονται άμεσα με το στόχο της χορήγησης συνταξιοδοτικών παροχών.

- **«συνταξιοδοτικό σχέδιο»** σημαίνει το νόμο, τη σύμβαση, τη συμφωνία, περιλαμβανομένης συλλογικής συμφωνίας, το έγγραφο και τους κανόνες που καθορίζουν ποιές συνταξιοδοτικές παροχές χορηγούνται και υπό ποιούς όρους.
- **«χρηματοδοτούσα επιχείρηση»** σημαίνει οποιαδήποτε επιχείρηση, ή άλλο φορέα, ανεξαρτήτως του εάν περιλαμβάνει ή απαρτίζεται από ένα ή περισσότερα νομικά ή φυσικά πρόσωπα, η οποία ενεργεί υπό την ιδιότητα εργοδότη ή ελεύθερου επαγγελματία ή οποιουδήποτε συνδυασμού αυτών, και χρηματοδοτεί ή συγχρηματοδοτεί συνταξιοδοτικό σχέδιο και περιλαμβάνει την Κυβέρνηση της Δημοκρατίας ως εργοδότη και τους εργοδότες που εμπίπτουν στον ευρύτερο δημόσιο τομέα.

According to Article 3(2), the Law applies to all IORPs, with the exception of:

- a) Στο Σύστημα Κοινωνικών Ασφαλίσεων που ιδρύθηκε και λειτουργεί δυνάμει του περί Κοινωνικών Ασφαλίσεων Νόμου, όπως αυτός εκάστοτε τροποποιείται ή αντικαθίσταται, καθώς και άλλα ιδρύματα που τυχόν διαχειρίζονται συστήματα κοινωνικής ασφάλισης, τα οποία εμπίπτουν στους κανονισμούς (ΕΚ) αριθ. 883/2004 και (ΕΚ) αριθ. 987/2009 του Ευρωπαϊκού Κοινοβουλίου και του Συμβουλίου, όπως αυτός εκάστοτε τροποποιείται ή αντικαθίσταται.

- b) Σε ιδρύματα που εμπίπτουν στο πεδίο εφαρμογής οποιουδήποτε από τους ακόλουθους νόμους:
- i. Στον περί Ασφαλιστικών και Αντασφαλιστικών Εργασιών και Άλλων Συναφών Θεμάτων Νόμο, όπως αυτός εκάστοτε τροποποιείται ή αντικαθίσταται.
  - ii. Στον περί των Ανοικτού Τύπου Οργανισμών Συλλογικών Επενδύσεων Νόμο, όπως αυτός εκάστοτε τροποποιείται ή αντικαθίσταται.
  - iii. Στον περί Επενδυτικών Υπηρεσιών και Δραστηριοτήτων και Ρυθμιζόμενων Αγορών Νόμο, όπως αυτός εκάστοτε τροποποιείται ή αντικαθίσταται.
  - iv. Στον περί των Διαχειριστών Οργανισμών Εναλλακτικών Επενδύσεων Νόμο, όπως αυτός εκάστοτε τροποποιείται ή αντικαθίσταται.
  - v. Στον περί Εργασιών Πιστωτικών Ιδρυμάτων Νόμο, όπως αυτός εκάστοτε τροποποιείται ή αντικαθίσταται.
- c) Σε ιδρύματα που λειτουργούν σε διανεμητική βάση.
- d) Σε ιδρύματα όπου οι υπάλληλοι της χρηματοδοτούσας επιχείρησης δεν έχουν εκ του νόμου δικαιώματα στα οφέλη και όπου η χρηματοδοτούσα επιχείρηση μπορεί να αποδεσμεύσει σε οποιαδήποτε στιγμή τα στοιχεία του ενεργητικού και να μην ανταποκριθεί κατ' ανάγκη στις υποχρεώσεις της προς καταβολή των συνταξιοδοτικών παροχών.
- e) Στις επιχειρήσεις οι οποίες για την καταβολή των συνταξιοδοτικών παροχών στους υπαλλήλους τους προσφεύγουν στη σύσταση αποθεματικών στον ισολογισμό.

**Application of Law 10(I)/2020 in the case of the Advocates Pension Fund**

From our understanding of the operation and set up of the Fund, the following remarks can be made:

- None of the exceptions mentioned in Article 3(2) of the Law apply.
- The Fund falls within the definitions mentioned in Article 2 of the Law.

Given the above, our opinion is that the Fund needs to **comply** with the Law and proceed to the proper registration of the Fund with the Registrar and implementation of all requirements arising from the provisions of the legal and regulatory framework.

**Law 10(I)/2020 Principles of Funding, Technical Provisions, Recovery Plan**

Article 26 of the Law states the following, amongst others, in relation to the concept of **Technical Provisions**:

- Τα εγγεγραμμένα ΙΕΣΠ, τα οποία διαχειρίζονται επαγγελματικά συνταξιοδοτικά σχέδια, σχηματίζουν, ανά πάσα στιγμή, για το σύνολο των συνταξιοδοτικών σχεδίων τους, επαρκές ύψος υποχρεώσεων που αντιστοιχεί στις οικονομικές δεσμεύσεις που απορρέουν από το χαρτοφυλάκιό τους με βάση τις υφιστάμενες συμβάσεις συνταξιοδότησης.
- Τα εγγεγραμμένα ΙΕΣΠ, τα οποία διαχειρίζονται επαγγελματικά συνταξιοδοτικά σχέδια, όταν παρέχουν κάλυψη κατά των βιομετρικών κινδύνων ή εγγυώνται είτε την απόδοση των επενδύσεων είτε ένα συγκεκριμένο ύψος παροχών, σχηματίζουν επαρκή τεχνικά αποθεματικά όσον αφορά το σύνολο αυτών των σχεδίων.
- Ο υπολογισμός των τεχνικών αποθεματικών πραγματοποιείται κάθε χρόνο εντός έξι μηνών από τη λήξη του προηγούμενου χρόνου: Νοείται ότι επιτρέπεται ο υπολογισμός ανά τριετία, εάν το ΙΕΣΠ χορηγήσει στα

μέλη και στον Έφορο βεβαίωση ή έκθεση σχετικά με τις αναπροσαρμογές κατά το μεσοδιάστημα, η οποία αντανακλά την αναπροσαρμοσμένη εξέλιξη των τεχνικών αποθεματικών και τις μεταβολές των καλυπτόμενων κινδύνων.

- Ο υπολογισμός των τεχνικών αποθεματικών διενεργείται και βεβαιώνεται από αναλογιστή επί τη βάσει αναλογιστικών μεθόδων αναγνωρισμένων από τον Έφορο με Οδηγία, σύμφωνα με τις ακόλουθες αρχές [...].

Article 27 of the Law states the following, amongst others, in relation to the concept of the **Recovery Plan**:

- Τα αναφερόμενα στο εδάφιο (2) του άρθρου 26 ΙΕΣΠ οφείλουν να έχουν ανά πάσα στιγμή περιουσιακά στοιχεία κατάλληλα και επαρκή για την κάλυψη των τεχνικών αποθεματικών που απαιτούνται για το σύνολο των συνταξιοδοτικών σχεδίων τους.
- Ένα ΙΕΣΠ μπορεί, για μικρό χρονικό διάστημα, να έχει περιουσιακά στοιχεία ανεπαρκή προς κάλυψη των τεχνικών αποθεματικών, και σε τέτοια περίπτωση η διαχειριστική επιτροπή του ΙΕΣΠ ενημερώνει σχετικά τον Έφορο, αμέσως μετά τη διαπίστωση της ανεπάρκειας, ο δε Έφορος απαιτεί, αμέσως μετά την ενημέρωσή του, από το ΙΕΣΠ να καταρτίσει συγκεκριμένο και πραγματοποιήσιμο σχέδιο ανάκαμψης με χρονοδιάγραμμα, ώστε να εξασφαλίσει εκ νέου τις προϋποθέσεις του εδαφίου (1).

More details are set out in the Sections that follow. The above provisions of the Law have been **taken into consideration** in the actuarial valuation calculations.

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## Law 10(I)/2020

### Vesting Restrictions

Article 19 of the Law states the following:

- [...] καμιά μείωση σωρευμένων δικαιωμάτων σε ΙΕΣΠ δεν επιτρέπεται, εκτός στην περίπτωση οικειοθελούς τερματισμού της απασχόλησης του μέλους πριν από τη συμπλήρωση τριών (3) ετών συνεχούς απασχόλησης με τη χρηματοδοτούσα επιχείρηση [...]. Νοείται περαιτέρω ότι, προκειμένου περί Ταμείου Προνοίας απαγορεύεται η μείωση των σωρευμένων δικαιωμάτων τα οποία προκύπτουν από τις προσωπικές εισφορές του μέλους.

According to the Rules of the Fund, a member is not entitled to any benefit from the Fund in case of termination of employment (due to any reason) before the completion of 25 years of pensionable/contributory service.

In our opinion, this is **non-compliant** with the provisions of Law 10(I)/2020.

Based on our understanding of the legislation, in case of termination of employment with pensionable/contributory service between 0 to 25 years, the member is entitled to the **accrued benefit** based on completed pensionable/contributory service.

We have thus **taken this into consideration** in the actuarial valuation calculations conducted.

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## Law 10(I)/2020

### Regulatory own funds

Amongst others, the Law defines the following in Article 2:

- «**βιομετρικοί κίνδυνοι**» σημαίνει τους κινδύνους που συνδέονται με το θάνατο, την ανικανότητα και τη μακροζωία.

Furthermore, Article 28 of the Law states the following:

- Όταν τα εγγεγραμμένα ΙΕΣΠ, τα οποία διαχειρίζονται συνταξιοδοτικά συστήματα, αναλαμβάνουν τα ίδια, αντί της χρηματοδοτούσας

επιχείρησης, την ευθύνη για την κάλυψη βιομετρικών κινδύνων ή εγγυώνται ορισμένη απόδοση των επενδύσεων ή ορισμένο ύψος παροχών, έχουν σε μόνιμη βάση, πέραν των τεχνικών αποθεματικών, συμπληρωματικά περιουσιακά στοιχεία προς κάλυψη των πρόσθετων κινδύνων.

- Το ύψος των εν λόγω συμπληρωματικών στοιχείων είναι ανάλογο με τον κίνδυνο και με το χαρτοφυλάκιο των στοιχείων ενεργητικού που αντιστοιχεί στο πλήρες φάσμα των συνταξιοδοτικών σχεδίων που διαχειρίζεται το ΙΕΣΠ.
- Το κατά την παράγραφο (β) ενεργητικό δεν προορίζεται για την κάλυψη του προβλέψιμου παθητικού, αλλά αποτελεί κεφάλαιο ασφαλείας για την κάλυψη των αποκλίσεων μεταξύ των αναμενόμενων και των πραγματικών δαπανών και κερδών.
- Το ελάχιστο ύψος πρόσθετων στοιχείων ενεργητικού, υπολογίζεται σύμφωνα με τους κανόνες που καθορίζονται στα άρθρα 29 έως 31, σχετικά με την φερεγγυότητα.

Based on the above comments, the Fund may need to hold additional assets above the technical provisions to serve as a buffer for the biometrical risks.

For the purposes of the current exercise, we have **not** taken into consideration any regulatory own funds in the actuarial valuation calculations.

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#### **Social Insurance Scheme Law**

#### **Reduction of benefits and contributions for Occupational Pension Funds**

Articles 93(1) and 93(2) of the Social Insurance Scheme Law 59(I)/2010 state the following:

- "Το ποσό οποιασδήποτε περιοδικής πληρωμής, που καταβάλλεται σε μισθωτό ή αναφορικά με μισθωτό, από οποιοδήποτε επαγγελματικό σχέδιο συντάξεων, για περιόδους απασχόλησης από τις 6 Οκτωβρίου 1980 και μετέπειτα, μειώνεται κατά το ποσό της αντίστοιχης συμπληρωματικής παροχής που καταβάλλεται στο μισθωτό ή αναφορικά με αυτόν δυνάμει του παρόντος Νόμου, με βάση τις ασφαλιστέες αποδοχές, για τις οποίες καταβλήθηκαν εισφορές αναφορικά με το μισθωτό για τις εν λόγω περιόδους."

We understand that the Administrative Committee of the Fund, together with their external legal advisors, have investigated whether the Fund needs to apply this Article of the Social Insurance Scheme Law or whether the Fund is exempted with a negative result. As such, for the purposes of this report, we have assumed that the Fund **cannot** apply these Articles.

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