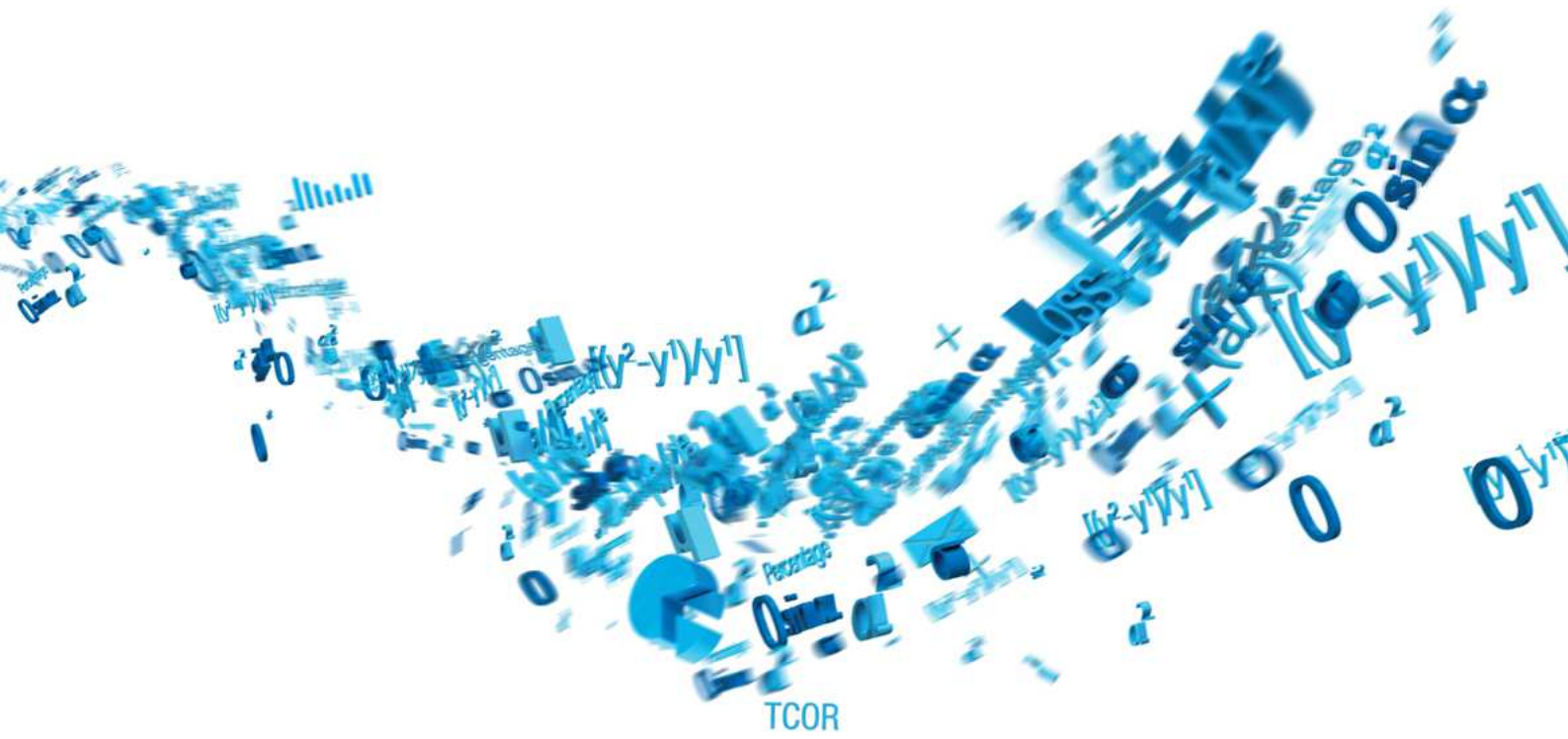

Actuarial Funding Report as at 31 December 2015

Cyprus Telecommunications Authority - Pension Scheme

5 July 2016

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Prepared for

Trustees of the Cyprus Telecommunications Authority Pension Scheme

Prepared by

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1. Executive summary

Introduction

We have carried out a valuation of the Cyprus Telecommunications Authority (CYTA) Pension Plan (the Fund). The valuation date is **31 December 2015**. The main purposes of the actuarial valuation are to investigate the current financial position of the Fund and to recommend the rates of contributions payable to the Fund in the future.

Results & Conclusions

- On the basis of the long-term assumptions there was, at the valuation date, a funding deficit of **€176.114.477**, which corresponded to a ratio of actual asset value to target asset value being funded for past service benefits (the funding target ratio) of **76,3%**.

Future Service funding cost recommendations:

- On the new valuation results as at 31 December 2015, the rate that is expected to be sufficient to cover the cost of future service accrual is **18,4%** of pensionable salary.

- Allowing for employee contributions of 5%, the Standard Contribution Rate paid by CYTA should be revised to **13,4%** of Payroll.

- The above rates ignore the past-service deficit.

Recovery Plan for Deficit repair contributions:

- To eliminate the funding shortfall, the trustees and the Employer need to agree the **level** and **type** of additional contributions (i.e. contributions over and above those needed to cover benefits being earned in the future) that will be paid into the Scheme.

- The trustees together with the Employer also need to agree the **period** over which the funding objective should be met.

  The duration of the Scheme's liabilities has remained at a similar level as last year (i.e. 16 years), mainly due to the introduction of a group of deferred pensioners aged less than 45 years old at the time of termination of employment.

  The trustees together with the Employer have decided to finance the past service deficit over an **11 year** period, assuming a return on assets of **4,40% pa**.

  This leads to an annual deficit contribution of **EUR 17,0 million pa**.

- The use of any Alternative financing that may be used is ignored. Such Alternative financing may reduce the level of Cash contributions and/or extend the chosen recovery period.

- Once the Recovery Plan is agreed, it should be submitted to the

Regulator for approval.

- 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.

Investment Policy Recommendations

- The Trustees should ensure that their approved long-term Investment Strategic Allocation is implemented in the near future to ensure alignment of the funding and investment objectives.

- Further, the level of mismatching between Assets and Liabilities should be closely monitored particularly as yields start to return back to higher/"normal" levels.

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2. Introduction

Overview

This report sets out the results of our actuarial valuation of the Cyprus Telecommunications Authority Pension Plan (the Fund) as at **31 December 2015**.

Funding objective

The recommendations in this report are designed to bring the Fund's assets into line with its **funding target,** as discussed in the next section.

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**.

A snapshot view

This report concentrates on the Fund's funding position at the valuation date. As time moves on, the Fund's finances will fluctuate. It will therefore be necessary to carry out further valuations to monitor the position. In the meantime, if you are reading this report some time after it was prepared, you should bear in mind that the Fund's funding position could have changed significantly.

Previous valuation

The results of the previous valuation as at 31 December 2014 showed:

- A funding **deficit** of **EUR 160.500.009**.
- A funding target ratio of **78,1%**.
- A recommended company contribution rate of **13,7%** of pay.
- The trustees together with the Employer have decided to finance the past service deficit over a **10 year** period, assuming a return on assets of **4,10% pa**.

	Recovery period = 5 years	Recovery period = 10 years	Recovery period = 18 years
Asset return = 2,45%	€34,5M p.a.	€18,3M p.a.	€11,1M p.a.
Asset return = 4,10%	€33,4M p.a.	€17,0M p.a.	€9,6M p.a.

Justifying where you sit depends on	◄-- High	-----	**Affordability**	-----	Low --►
	◄-- None	-----	**Security**	-----	Some --►

3. Principles of Funding

Pensions vocabulary

Law 208(I) 2012 introduced 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:

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

Principles of Funding

The Trustees and Company are required to agree on three principles:

Principle 1:

What technical provisions to target?

To calculate the **technical provisions**:

- For each year into the future, the benefits paid out by the Scheme are estimated. This is generally considered in real terms for the majority of cashflows, which are linked to inflation.
- 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.**

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.

Principle 3:

How to address any shortfall?

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

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.

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.

Legal Requirements

As per the requirements of Law 208(I) 2012:

- *The calculation of the technical provisions shall be executed and certified by an actuary or, if not by an actuary, by another specialist in this field, including an auditor, according to national legislation, on the basis of actuarial methods recognised by the competent authorities of the home Member State, according to the following principles:*
- *(a) the minimum amount of the technical provisions shall be calculated by a sufficiently prudent actuarial valuation, taking account of all commitments for benefits and for contributions in accordance with the pension arrangements of the institution. It must be sufficient both for pensions and benefits already in payment to beneficiaries to continue to be paid, and to reflect the commitments which arise out of members' accrued pension rights. The economic and actuarial assumptions chosen for the valuation of the liabilities shall also be chosen prudently taking account, if applicable, of an appropriate margin for adverse deviation;*
- *(b) 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;*

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.

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 Trustees of the Scheme have decided 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. 16 years), plus a margin of 125bps to allow for future expected returns of the current investment strategy.

As such, the discount rate is set at **2,55% 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.

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

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.

4. Membership data

Introduction

Cyprus Telecommunications Authority 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.

Summary of membership data

The table below presents a summary of the scheme membership data as at 31/12/2015.

All amounts in EURO.

Data item	31/12/2015	31/12/2014
Number of active employees	1.649	1.657
- Average monthly pay	€ 3.042	€ 3.043
- Average Age (years)	45,9	44,9
- Average Pensionable Service	21,0	20,0
Number of pensioners	1.516	1.378
- Average monthly pension	€ 1.842	€ 1.856
- Average Age (years)	68,2	68,7
Number of deferred members	147	278
- Average monthly pension	€ 1.466	€ 1.606
- Average Age (years)	52,7	54,0
Number of widows / orphans	280	273
- Average annual pension	€ 1.131	€ 1.131
- Average Age (years)	75,1	74,7

5. Fund Assets and Financial Development

Market Values

The table below presents the market value of plan assets as provided to us by the company, as at 31 December 2015 and 31 December 2014.

All amounts in €:

Year ending	31/12/2015	31/12/2014
Market value of Assets	565.825.426	573.903.056

Cashflows during the year

CYTA has informed us of the following cash flows during the period 01/01/15 – 31/12/15.

All amounts in EURO.

Cash flow	01/01/15 – 31/12/15
Company contributions	25.037.043*
Pension and Lump Sum benefits	32.446.117
Employee contributions	2.969.039

* Includes deficit contributions of EUR17m payable during FY2015.

Return on Assets

Given the market value of the Pension Plan Assets at 31/12/2014, and the above cash flows for the period 01/01/2015 – 31/12/2015, the average return achieved during the period was about **-0,6%**.

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.

6. Valuation Method & Assumptions

Introduction

The benefit structure of the Plan, its membership and its assets at the valuation date are all known facts. However, the Plan's future finances also depend on uncertain factors such as future investment returns, pay and 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 agreed with the company for the current and previous actuarial valuations.

Assumption	31/12/2015	31/12/2014
Discount rate	2,55%	2,45%
Price inflation	2,00%	2,00%
Salary increases	Years 2016-2017: 0,00% Year 2018: 1,00% Year 2019: 1,50% Year 2020: 2,00% Years 2021+: 2,50%	Years 2015-2017: 0,00% Year 2018: 1,00% Year 2019: 1,50% Year 2020: 2,00% Years 2021+: 2,50%
Pension increases	Years 2016-2017: 0,00% Years 2018-2020: 1,00% Years 2021+: 1,50%	Years 2015-2017: 0,00% Years 2018-2020: 1,00% Years 2021+: 1,50%

Appendix 2 discusses assumption selection in more detail.

Key demographic assumptions

The table below shows the key demographic assumptions agreed with the company for the current and previous actuarial valuations.

Assumption	31/12/2015	31/12/2014
Mortality	92% of EVK2000	96% of EVK2000
Normal Retirement	Age 65	Age 65
Other pre-retirement exits	None	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 closed to new entrants, the Attained Age Method can be used as it calculates the cost of the benefits expected to accrue to members over their expected remaining membership of the scheme expressed as a percentage of their expected pensionable pay. It also allows for projected future increases in pay through to retirement or date

of leaving service. The method is based on the current membership and takes no account of the possibility of new members joining the scheme. It is therefore used mainly for closed schemes where no new members are admitted as in these circumstances the required contribution rate is reasonably stable.

The method used for this valuation is the Attained Age method.

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7. Funding Valuation Results at 31/12/2015

Past service position

The funding objective is to hold assets equal to the funding target. Therefore, 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)	31/12/2015
Actives	(224.067.068)
Deferreds	(44.855.308)
Pensioners	(446.977.427)
Widows / Orphans	(26.040.100)
Total Funding Target / Technical Provisions	**(741.939.903)**
Market Value of Assets	**565.825.426**
Funding Surplus / (Deficit)	**(176.114.477)**
Funding Level	**76,3%**

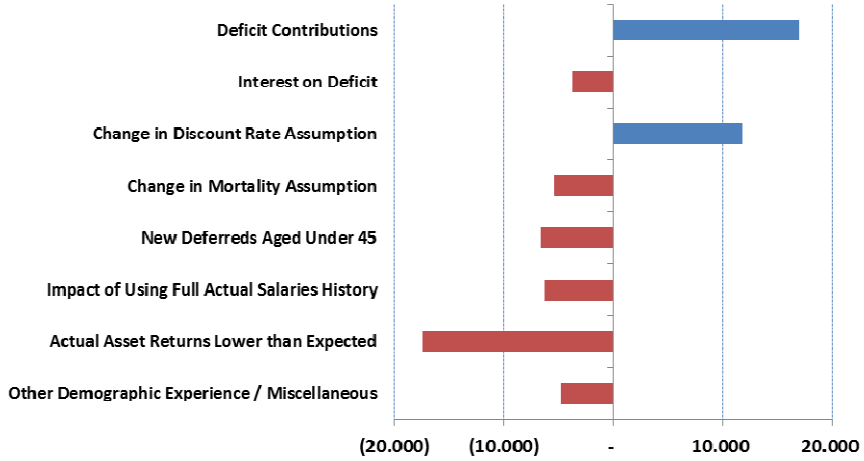
The following table shows the split of the past-service results into the Gross part (before deduction of the State earnings-related pension) and the SIS part (State earnings-related pension):

31/12/2015	Gross	SIS	Net
Actives	(441.348.577)	217.281.509	(224.067.068)
Deferreds	(66.185.978)	21.330.670	(44.855.308)
Pensioners	(636.355.293)	189.377.866	(446.977.427)
Widows / Orphans	(36.078.482)	10.038.382	(26.040.100)
Funding Target	**(1.179.968.329)**	**438.028.427**	**(741.939.903)**

Analysis of Surplus

As at the valuation dated 31 December 2014, the Fund had a past-service deficit of **€160.500.009**. The past-service position has therefore worsened by **€15.614.917**. The table below summarises the main elements that contribute to this:

Surplus/(Deficit), € 000s	31/12/14 – 31/12/15
Surplus / (Deficit) at 31/12/2014	(160.500)
Deficit Contributions	17.000
Interest on Deficit	(3.820)
Change in Discount Rate Assumption	11.775
Change in Mortality Assumption	(5.383)
New Deferreds Aged Under 45	(6.641)
Impact of Using Full Actual Salaries History	(6.353)
Actual Asset Returns Lower than Expected	(17.436)
Other Demographic Experience / Miscellaneous	(4.756)
Surplus / (Deficit) at 31/12/2015	**(176.114)**



Future service position

Standard Contribution Rate (SCR)

The **Standard Contribution Rate (SCR)** is the cost of benefits expected to accrue to existing members after the valuation date, expressed as a % of expected payroll.

The table below presents the SCR, under the chosen valuation method:

Future Funding costs	Gross	SIS	Net
Standard Contribution Rate (SCR)	*37,5%*	*(19,0%)*	**18,4%**

- The rate in the above table is presented as a % of pensionable salary (i.e. basic pay plus COLA, excluding 13th salary).
- The SCR ignores any past-service surplus or deficit.
- The above rate does not include the 5% employees' contribution into the Scheme.
- On the current funding method and assumptions, the SCR should remain stable (as a % of salaries) if the age/sex/salary profile of active members remains stable.
- If experience is as assumed, the above contribution rate is expected to be sufficient to finance the future service benefits.

The main results are summarized in the following table.

Valuation Results	Central Scenario
Discount Rate	2,55%
Funding target	(741.939.903)
Market Value of Assets	565.825.426
Surplus / (Deficit)	(176.114.477)
Funding Level	76,3%
SCR*	**18,4%**
Employees' Contribution Rate	-5,0%
Employer's Contribution Rate	**13,4%**
Estimated Employer's Contribution (FY2015)	***€8,1M***

** The disclosed contribution rate ignores any past-service surplus or deficit.*

Sensitivity Results

We have performed sensitivity analysis on the Pension Plan results, and the results are as follows:

Technical Provisions	**AAA yield + 1,25% (Base)**	**AAA yield + 1,5%**
Actives	(224.067.068)	(211.455.283)
Deferreds	(44.855.308)	(43.264.596)
Pensioners	(446.977.427)	(433.794.946)
Widows / Orphans	(26.040.100)	(25.586.190)
Total Funding Target / Technical Provisions	**(741.939.903)**	**(714.101.015)**
Market Value of Assets	**565.825.426**	**565.825.426**
Funding Surplus / (Deficit)	**(176.114.477)**	**(148.275.589)**
Funding Level	**76,3%**	**79,2%**

** The disclosed contribution rate ignores any past-service surplus or deficit.*

8. Recovery Plan

Definition

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

Introduction

A recovery plan must be prepared by the trustees to satisfy the requirements of Article 34 of Law 208(I) 2012, after obtaining the advice of the Scheme Actuary and after consultation with the Employer.

The recovery plan follows the actuarial valuation of the scheme as at 31 December 2015 which has revealed a funding shortfall (technical provisions minus value of assets) of **€176.114.477**.

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

To eliminate the funding shortfall, the trustees and the Employer need to agree the **level** and **type** of additional contributions (i.e. contributions over and above those needed to cover benefits being earned in the future) that will be paid into the Scheme.

Period in which the funding objective should be met

The trustees together with the Employer 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 eliminated within the chosen period.

Trustees 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

As already mentioned, on the basis of our long-term assumptions there was, at the valuation date, a funding deficit of **€176.114.477**.

In some situations, it may be appropriate to assume a higher investment return for the recovery plan than the discount rate used to calculate technical provisions. The extent to which this is appropriate will depend on the level of risk associated with the assumptions used in the technical provisions calculation and investment strategy applying.

According to global practice, it is very common for pension schemes (similar to that of CYTA) to consider the best estimate asset returns for the purposes of drafting the recovery plan. As described in detail in **Appendix 2**, at 31 December 2015, it has been calculated that, over the next 3 years, the Scheme's assets have an expected return of **4,40% pa**. We have thus calculated the level of contributions required to finance the past service deficit, assuming a return on assets of 4,40% pa.

In determining the optimal recovery plan, it is very important for the

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Employer and the trustees to consider the issue of affordability upfront, taking into account any reinvestment needs for sustainable business growth.

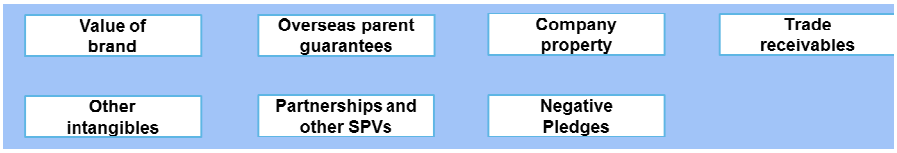
The duration of the Scheme's liabilities has remained at a similar level as last year (i.e. 16 years), mainly due to the introduction of a group of deferred pensioners aged less than 45 years old at the time of termination of employment.

The trustees together with the Employer have decided to finance the past service deficit over an **11 year** period, assuming a return on assets of **4,40% pa**.

This leads to an annual deficit contribution of **EUR 17,0 million pa**.

Use of Alternative Financing

Non-cash funding and security can be used to optimize cash payments allowing the Employer and the trustees to consider the issue of affordability upfront. First step is to identify suitable assets – ideally those that are under-utilised or under-valued on the balance sheet. Consideration then needs to be given to the vehicle which the assets are placed. When to introduce alternative financing into funding discussions needs careful consideration – either before Technical Provisions are finalised, or once the deficit is agreed to support the Recovery Plan. The latter normally allows greater flexibility. Where significant cash is being paid, consideration should be given to the use of a contingent vehicle to avoid a trapped surplus in future. Finally, careful consideration of the potential benefits (e.g. taxation and accounting treatment) is needed to decide whether the more complex structures add significant value. The chart below shows some possible alternative financing methods.



9. Investment Policy

Suitability of the current asset allocation

We suggest examining the appropriateness of the current asset allocation in relation to the nature and duration of the obligations:

- The Pension Plan is exposed to significant **interest rate risk** due to the mismatch of the duration of assets and liabilities.

- In addition, the Pension Plan faces **inflation risk**, since all the liabilities are either directly (through increases in pensions) or indirectly (through wage increases), exposed to inflation risks. Investments to ensure inflation-linked returns (i.e. real returns through investments such as equities, index-linked bonds and assets whose return increase with increasing inflation) could be used for better match with the expected increases in liabilities.

- Due to the recent decline in interest rates and the mismatch of the duration of assets and liabilities, the rate of increase of the liabilities has not been balanced by a corresponding growth in the assets, thus significant financing gaps (deficits) have arisen.

- Cash is usually held in deposits at very short term interest rates. Usually, pension funds hold cash either as a short term investment or as a “working balance” to enable smoothness in other transactions. Problems will arise if income (interest income and contributions) is not sufficient to meet benefit outgo. As this is not a problem currently faced by the Fund, it appears that such a high allocation of assets in cash-type investments is not necessary.

- The Trustees should ensure that their approved long-term Investment Strategic Allocation is implemented in the near future to ensure alignment of the funding and investment objectives. Further, the level of mismatching between Assets and Liabilities should be closely monitored particularly as yields start to return back to higher/"normal" levels.

10. Recommendations & Conclusions

Introduction

The main conclusions are summarized below.

Summary of Results

The main results of the funding valuation are as follows:

- On the basis of the long-term assumptions there was, at the valuation date, a funding deficit of **€176.114.477**.
- This corresponded to a past service funding ratio of **76,3%**.
- A future-service funding cost of **18,4%** of payroll.

Recommended Contribution rates

Future Service funding cost recommendations:

- On the new valuation results as at 31 December 2015, the rate that is expected to be sufficient to cover the cost of future service accrual is **18,4%** of pensionable salary.
- Allowing for employee contributions of 5%, the Standard Contribution Rate paid by CYTA should be revised to **13,4%** of Payroll.
- The above rates ignore the past-service deficit.

Recovery Plan for Deficit repair contributions:

- To eliminate the funding shortfall, the trustees and the Employer need to agree the **level** and **type** of additional contributions (i.e. contributions over and above those needed to cover benefits being earned in the future) that will be paid into the Scheme.
- The trustees together with the Employer also need to agree the **period** over which the funding objective should be met.

  The duration of the Scheme's liabilities has remained at a similar level as last year (i.e. 16 years), mainly due to the introduction of a group of deferred pensioners aged less than 45 years old at the time of termination of employment.

  The trustees together with the Employer have decided to finance the past service deficit over an **11 year** period, assuming a return on assets of **4,40% pa**.

  This leads to an annual deficit contribution of **EUR 17,0 million pa**.
- The use of any Alternative financing that may be used is ignored. Such Alternative financing may reduce the level of Cash contributions and/or extend the chosen recovery period.
- Once the Recovery Plan is agreed, it should be submitted to the Regulator for approval.
- 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.

Investment Policy Recommendations

- The Trustees should ensure that their approved long-term Investment Strategic Allocation is implemented in the near future to ensure alignment of the funding and investment objectives.
- Further, the level of mismatching between Assets and Liabilities should be closely monitored particularly as yields start to return back to higher/"normal" levels.

Signed on behalf of Aon Hewitt (Cyprus) Ltd

Philippos Mannaris

Actuary, FCAA, AIA

Appendix 1: Summary of plan provisions

Ηλικία Υποχρεωτικής Αφυπηρέτησης (ΗΥΑ)	• Συμπλήρωση 63ου έτους ηλικίας μεταξύ 01/01/13 - 31/12/13 => ΗΥΑ = **63,5** • Συμπλήρωση 63ου έτους ηλικίας μεταξύ 01/01/14 - 31/12/14 => ΗΥΑ = **64,0** • Συμπλήρωση 63ου έτους ηλικίας μεταξύ 01/01/15 - 31/12/15 => ΗΥΑ = **64,5** • Συμπλήρωση 63ου έτους ηλικίας μετά 01/01/16 => ΗΥΑ = **65,0** Η ΗΥΑ αναπροσαρμόζεται από το 2018 και μετά, κάθε 5 χρόνια, με βάση τη μεταβολή του **προσδόκιμου ζωής** κατά την ΗΥΑ. Το 2018 θα γίνει η πρώτη αναπροσαρμογή που θα αντιστοιχεί στη μεταβολή του προσδόκιμου ζωής κατά την 5ετία 2018 έως 2023.
Τελικές Συντάξιμες Αποδοχές (ΤΣΑ)	Δώδεκα φορές ο μηνιαίος βασικός μισθός συν οι αυξήσεις βιοτικού επιπέδου (COLA) κατά την ημερομηνία αποχώρησης.
Συντάξιμη Υπηρεσία (Ν)	Η ακριβής συμπληρωμένη υπηρεσία, μέχρι τη συσσώρευση της μέγιστης σύνταξης του 50% των ΤΣΑ.
Κανονική Σύνταξη Αφυπηρέτησης	**Προϋποθέσεις:** • συμπληρωμένη υπηρεσία ίση με 5 χρόνια και πάνω, και • ηλικία 55 χρόνια και πάνω. **΄Υψος Σύνταξης (άθροισμα Α και Β):** <u>(Α) Υπηρεσία πριν 01/01/13</u> • 1/800 **x** ΤΣΑ **x** Συμπληρωμένοι Μήνες Υπηρεσίας **μέχρι** 01/01/13 <u>(Β) Υπηρεσία μετά 01/01/13</u> • 1/800 **x** Μέσος Όρος Ακαθάριστων Συντάξιμων Απολαβών για Συνολική Υπηρεσία, Αναπροσαρμοσμένων με την Αξία της Εκάστοτε Ισχύουσας Ασφαλιστικής Μονάδας του ΤΚΑ **x** Συμπληρωμένοι Μήνες Υπηρεσίας **από** 01/01/13 Μέγιστη σύνταξη = 50% **x** ΤΣΑ
Κανονικό Εφάπαξ Αφυπηρέτησης	**΄Υψος Εφάπαξ (άθροισμα Α και Β):** <u>(Α) Υπηρεσία πριν 01/01/13</u> • 14/3 **x** ετήσια σύνταξη (400 μήνες υπηρεσία **μέχρι** 01/01/13) • 14,5/3 **x** ετήσια σύνταξη (ηλικία 61, 412 μήνες υπηρεσία **μέχρι** 01/01/13) • 15/3 **x** ετήσια σύνταξη (ηλικία 62, 424 μήνες υπηρεσία **μέχρι** 01/01/13) • 15,5/3 **x** ετήσια σύνταξη (ηλικία 63, 436 μήνες υπηρεσία **μέχρι** 01/01/13) <u>(Β) Υπηρεσία μετά 01/01/13</u> • 14/3 **x** ετήσια σύνταξη
Μετατροπή Εφάπαξ σε Σταθερό Μηνιαίο Ποσό	Δυνατότητα μετατροπής εφάπαξ σε σύνταξη (0%, 25%, 50%, 75% ή 100%), με βάση **Αναλογιστικών Συντελεστών**, ανάλογα με την ηλικία

	του υπαλλήλου κατά την αφυπηρέτηση.
Αναλογική Σύνταξη από το Ταμείο Κοινωνικών Ασφαλίσεων (ΤΚΑ)	Η σύνταξη που σχετίζεται με συντάξιμη υπηρεσία μετά την 6η Οκτωβρίου 1980, μειώνεται με τη συμπληρωματική σύνταξη του ΤΚΑ που σχετίζεται με εισφορές που πληρώθηκαν κατά την εργοδότηση μετά την 6η Οκτωβρίου 1980. Η σύνταξη αρχίζει να **συμψηφίζεται** όταν το μέλος αρχίζει να λαμβάνει την αναλογική σύνταξη από το ΤΚΑ.
Αναλογιστική Μείωση Συντάξεων	Όταν υπάλληλος αφυπηρετεί ή παραιτείται πριν από τη συμπλήρωση της ΗΥΑ, η σύνταξη και το εφάπαξ ποσό που κερδήθηκε για υπηρεσία **μετά** την 01/01/13 μειώνονται βάσει ποσοστών ανάλογα με την ΗΥΑ (δεν ισχύει για θάνατο και περιπτώσεις μόνιμης ανικανότητας). Δεν ισχύει για ωφελήματα που κερδήθηκαν για υπηρεσία **πριν** την 01/01/13.
Θάνατος μετά την Αφυπηρέτηση	Πληρώνεται σύνταξη χηρείας ίση με 75% ή 37,5% της σύνταξης του μέλους ανάλογα με την περίοδο κατά την οποία έγιναν εισφορές στο Ταμείο από το μέλος. Η αναλογιστική μείωση της Κανονικής Σύνταξης Αφυπηρέτησης συνεπάγεται σε μείωση της Σύνταξης Χηρείας.
Θάνατος κατά την Εργοδότηση	Πληρώνεται σύνταξη χηρείας ίση με 75% ή 37,5% της σύνταξης του μέλους βάσει ενισχυμένης υπηρεσίας (η μέγιστη ενισχυμένη υπηρεσία είναι ίση με την προσδοκώμενη υπηρεσία μέχρι την ΗΥΑ). Επίσης πληρώνεται εφάπαξ ποσό ίσο με το μεγαλύτερο: • των ετήσιων συντάξιμων αποδοχών, και • του εφάπαξ ποσού που θα πληρωνόταν αν το μέλος αφυπηρετούσε κανονικά. Η αναλογιστική μείωση της Κανονικής Σύνταξης Αφυπηρέτησης και του Εφάπαξ Ποσού Αφυπηρέτησης συνεπάγεται σε μείωση της Σύνταξης Χηρείας.
Αυξήσεις Συντάξεων	Οι συντάξεις αυξάνονται ετησίως με βάση τις αυξήσεις του ενεργού προσωπικού (γενικές και COLA).
Εισφορές Μελών	Μόνιμη αποκοπή **3% των μηνιαίων συντάξιμων απολαβών**, οι οποίες καταβάλλονται στο Πάγιο Ταμείο της Δημοκρατίας για τους κρατικούς υπαλλήλους, ενώ για τους υπαλλήλους του ευρύτερου δημόσιου τομέα καταβάλλονται στις αντίστοιχους οργανισμούς. Περιοδική εισφορά **2% των μηνιαίων συντάξιμων απολαβών** για μεταβίβαση της σύνταξης υπαλλήλου σε περίπτωση θανάτου του στη χήρα/χήρο και εξαρτώμενα τέκνα. Οι μηνιαίες εισφορές στο Ταμείο Χήρων και Τέκνων τερματίζονται με τη συμπλήρωση 400 μηνιαίων εισφορών στο εν λόγω Ταμείο.
Νεοεισερχόμενοι	Νεοεισερχόμενοι υπάλληλοι κατά ή μετά την 01/10/2011 **δεν καλύπτονται** από το Σχέδιο.
Φορολόγηση	Σύνταξη - υπόκειται σε Φόρο Εισοδήματος. Εφάπαξ που έχει κερδηθεί με υπηρεσία **πριν** 01/01/13 – αφορολόγητο. Εφάπαξ που έχει κερδηθεί με υπηρεσία **από** 01/01/13 – υπόκειται σε Φόρο Εισοδήματος.

Appendix 2: Valuation assumptions

Introduction

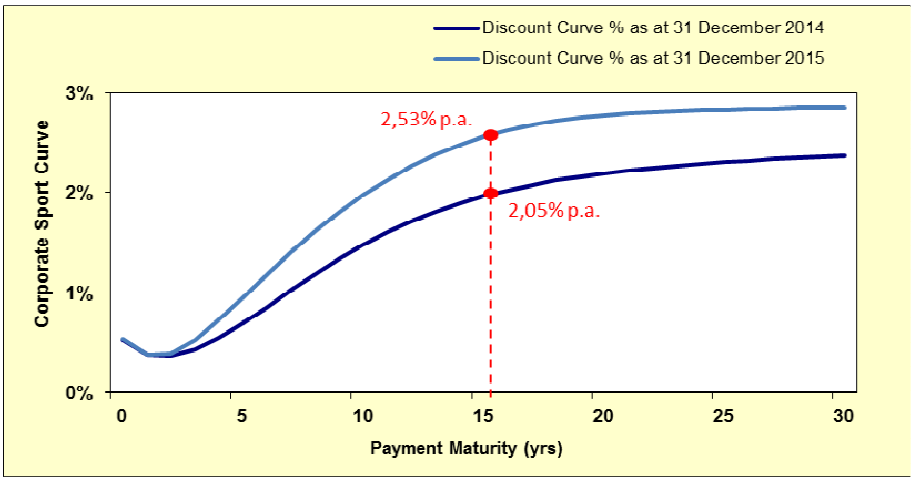
The assumptions used for assessing the long-term ongoing funding target are summarized below. Greater importance should be attached to the valuation assumptions as a whole rather than to the individual elements. More importantly, the differences between the financial assumptions have a greater effect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

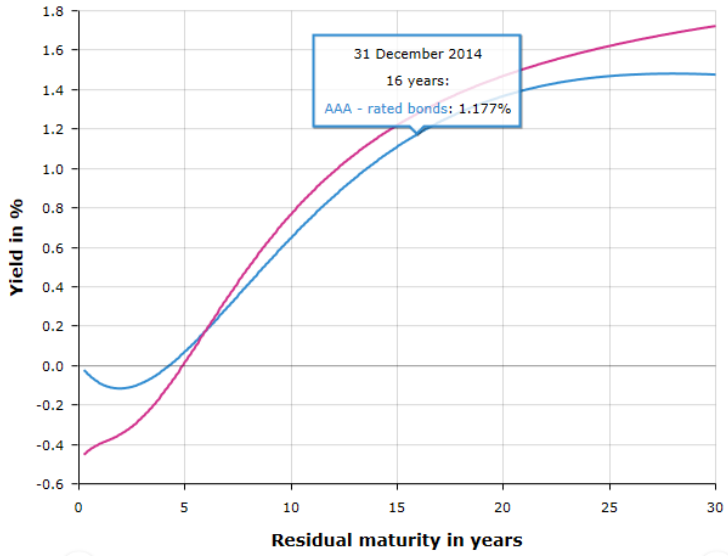
Discount rate

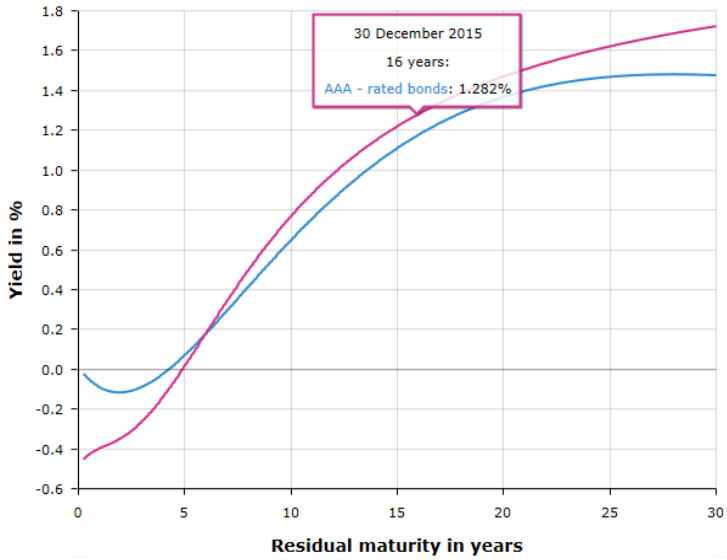
The discount rate is the valuation assumption with the widest range of choices. It is used to translate the estimated future benefit payments from the Scheme into a single figure which represents the amount that the Scheme needs to hold today to provide them.

The chart below shows the full Aon Hewitt Eurozone Yield Curve which has been adopted for the purposes of the IFRS (IAS19) accounting valuation.



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





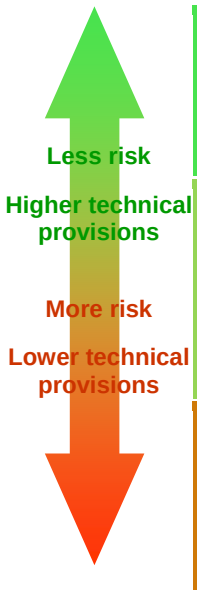
All charts show the point on the yield curves with approximately the same duration as the Scheme's liabilities (i.e. 16 years). The rates are also summarized in the following table:

Yield Curve	31/12/2015	31/12/2014
Aon Hewitt Eurozone Yield Curve (AA-rated euro area corporate bonds)	2,53% p.a.	2,05% p.a.
Euro Area Yield Curve (AAA-rated euro area central govt bonds)	1,3% p.a.	1,2% p.a.

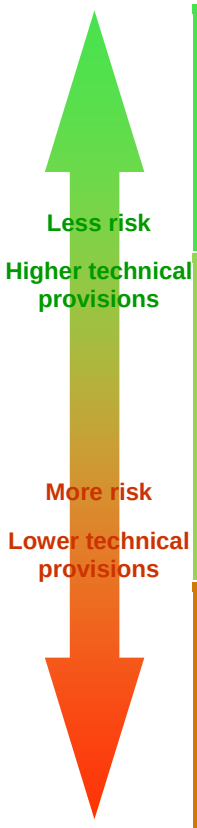
As per the requirements of Law 208(I) 2012, the maximum rates of interest used shall be chosen prudently and determined in accordance with any relevant rules of the home Member State. These prudent rates of interest shall be determined by taking into account:

- 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:



Government bond yields	• Could construct portfolio of Government bonds • **Eliminate all investment risk (i.e. risk-free rate)**
Corporate bond yields	• Could construct portfolio of Corporate bonds • **Eliminate most investment risk, but not risk of default** • Used for accounting purposes
Bond yields plus allowance for scheme assets to outperform bonds	• Allows for scheme assets to outperform bonds by investing in other assets • **Allowable** (depending on scheme's investment policy) but Trustees need to satisfy themselves of funding risks

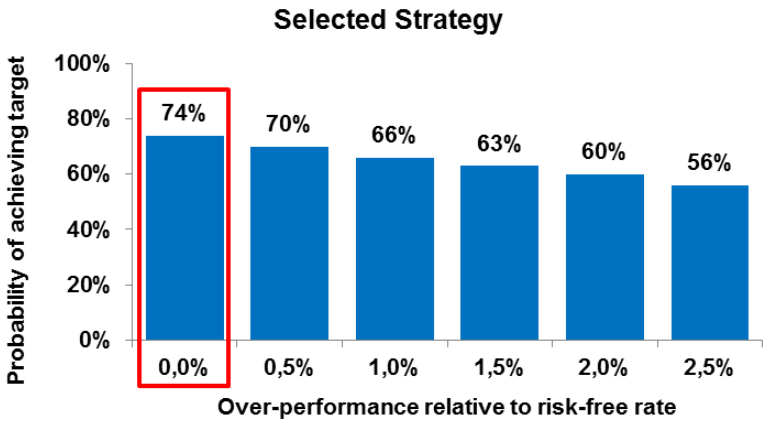


Government bond yields	• Adopt the **AAA-rated euro area central government bonds yield curve** issued by the European Central Bank (ECB). • Implied single **Discount Rate** according to the duration of CYTA scheme's liabilities: ➢ **1,3% p.a.**
Corporate bond yields	• Adopt the market yields of a **scheme-specific high-quality corporate bond liability proxy**. • Implied single **Discount Rate** derived from a basket of AA Eurozone Corporate bonds fit on the CYTA scheme liability cash flow profile (as per the IAS19 Yield Curve approach): ➢ **2,53% p.a.**
Bond yields plus allowance for scheme assets to outperform bonds	• Adopt the yield on the corresponding assets held by the scheme and the future investment returns. • Implied single **Discount Rate** as a result of the implementation of the proposed long-term investment strategy: ➢ **4,40% p.a.**

The current investment strategy is broadly 54% growth assets (10% global equities, 10% infrastructure equities, 24% property, 10% hedge funds) and 46% income assets (18% local bonds, 8% global corporate bonds, 20% cash). The implementation of the investment strategy is in progress and is expected to be fully completed in the next couple of years.

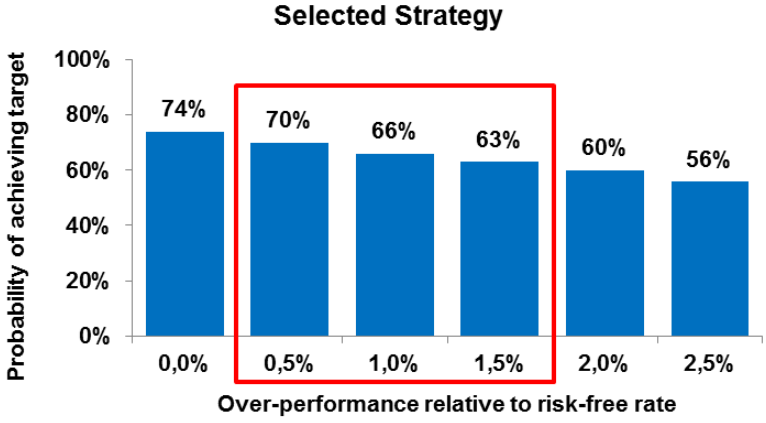
At 31 December 2015, it has been calculated that, over the next 3 years, the

Scheme's assets have an expected return of 3,1% p.a. in excess of AAA-rated Eurozone government bond yields (i.e. 4,4% minus 1,3%) and the probability that they outperform these yields over this period is around 74%, as displayed on the following chart.



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

Based on the Scheme's strategic asset allocation, Aon Hewitt's "Capital Market Assumptions" at 31 December 2015 and Aon Hewitt's projection methodology, we have assessed that the likelihood of the Scheme's assets returning at least 0,5%/1,0%/1,5% p.a. above the increase in the Scheme's liabilities is of the order of 70%/66%/63% over the next 3 years (as shown in the diagram below).



As at 31 December 2015, government bond yields were at extremely low levels. Most commentators (including ourselves) believe that in the medium term government bond yields will revert to higher, more "normal" levels. Because of this, the market already prices in an expected increase in such levels over the medium term which partly feeds through into the valuation assumptions through using the yields at the duration of the liabilities rather than at shorter terms.

However, our view is that yields will rise by more than the markets are pricing into medium-term government bond yields currently. So an argument could be put forward to increase the "government bond yields + [x]%

discount rate" for this actuarial valuation.

Based on all of the above, the Trustees of the Scheme have decided 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. 16 years), plus a margin of 125bps to allow for future expected returns of the current investment strategy, leading to a discount rate assumption of **2,55% pa** (i.e. 1,3% + 1,25%).

Price inflation

Under IFRS the assumed inflation rate should reflect the best estimate of long-term inflation. This estimate may be derived from historical inflation rates and/or looking at the long-term rates implied by the bond market where index-linked bonds are regularly traded. As a base point for the financial assumptions, we need to establish an assumption for future increases in Cypriot price inflation (CPI). Typically the assumption for price inflation is set by reference to the rate of implied inflation («breakeven inflation») derived from the difference between nominal government bonds and index linked bonds of the same term.

The primary objective of the European Central Bank's (ECB) monetary policy is to maintain price stability aiming at inflation rates of below, but close to, 2,00% over the medium term.

Pension liabilities are long term in nature and it would be unusual to make ad-hoc adjustments to inflation assumptions based on current economic conditions. Future inflation expectations are priced into the market-related measures that most companies are using and we wouldn't expect a change in the assumptions relative to those measures.

Considering all the above we have used an assumption of **2,00% pa.**

Salary Increases

Salary increases comprise of three elements, namely *general increases*, *increases in the COLA index* (this index increases in line with price inflation), and *promotional/merit increases*.

According to the recent legislative changes, specifically *Law 192(I)/2011* and *Law 185(I)/2012*, salary increases are structured as follows:

- The freeze of general wage increases is extended until 31 December 2016.

- The suspension of the practice of COLA is extended until 31 December 2015. Once indexation resumes and according to the Memorandum of Understanding, the system will be reformed as follows:

    - a lower frequency of adjustment, with the base period for calculating the indexation (COLA) being lengthened from the current period of six months to twelve months. Indexation would take place on 1st January each year;

    - a mechanism for automatic suspension of application and derogation procedures during adverse economic conditions, such that if in the second and third quarters of a given year negative rates of growth of seasonally adjusted real GDP are registered, no indexation would be effected for the following

year; and

- a move from full to partial indexation, with the rate of wage indexation being set at 50% of the rate of increase of the underlying price index over the previous year.

- No promotional/merit increases will be granted for service between 31 December 2012 and 31 December 2016.

As such, given the current outlook and the recent legislative changes, as well as the Company's expectations regarding future earnings increases, we have adopted a salary increase assumption of:

- **0,00% per annum** for the years 2016 – 2017,
- **1,00% per annum** for the year 2018,
- **1,50% per annum** for the year 2019,
- **2,00% per annum** for the year 2020, and
- **2,50% per annum** for the years 2021 onwards allowing for COLA, general pay increases and promotional/merit increases.

Pension Increases

The rules of the Pension Scheme allow for pensions in payment to increase in line with the increases granted to public sector employees. This has to date been in line with general salary increases and COLA increases.

Given the recent changes in legislation, as well as the Company's expectations regarding future pension increases, we have adopted a pension increase assumption of:

- **0,00% per annum** for the years 2016 – 2017,
- **1,00% per annum** for the years 2018 – 2020, and
- **1,50% per annum** for the years 2021 onwards.

SIS Supplementary Pension Increases

The SIS supplementary pension increases in line with increases in the COLA. Given recent legislative changes, we have therefore used a rate of **0,00% per annum for the year 2016** and **1,00% per annum for the years 2017 onwards**, for this assumption.

Increase of the Maximum Insurable Earnings Limit

Social insurance contributions that are added for the above deduction are calculated on salaries up to the maximum insurable earnings limit.

We have adopted a rate of **3,00% per annum** for this assumption (i.e. 1,0% per annum above the price inflation assumption).

Mortality	We have used a general mortality table called EVK2000 at 92% level which is based on Swiss mortality. This table is used to represent expected mortality before retirement. 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 83,19 and 85,98 respectively.
Normal Retirements	We have assumed that all employees will retire on their Normal Retirement Date as dictated by the recent changes in Law 216(I) 2012, i.e. at age 65 for both males and females.
Other Exits from Service	We have adopted a nil assumption for other pre-retirement exits (like disability, voluntary withdrawals, redundancy).

The table below summarises the assumptions adopted as at 31/12/2014 and 31/12/2012:

Assumptions	**31/12/2015**	**31/12/2014**
Discount Rate	2,55%	2,45%
Inflation Rate	2,00%	2,00%
Salary Increases	2016-2017: 0,00% 2018: 1,00% 2019: 1,50% 2020: 2,00% 2021+: 2,50%	2015-2017: 0,00% 2018: 1,00% 2019: 1,50% 2020: 2,00% 2021+: 2,50%
Pension Increases	2016-2017: 0,00% 2018-2020: 1,00% 2021+: 1,50%	2015-2017: 0,00% 2018-2020: 1,00% 2021+: 1,50%
SIS Supplementary Pension Increases	2016: 0,00% 2017+: 1,00%	2015-2016: 0,00% 2017+: 1,00%
Increase on MIE Limit	3,00%	3,00%
Mortality	92% of EVK2000	96% of EVK2000
Normal Retirement	Age 65	Age 65
Other pre-retirement exits	None	None

Appendix 3: Glossary

Discount rate	This is used to place a **present value** on a future payment. A 'risk-free' **discount rate** is usually derived from the investment return achievable by investing in government gilt-edged stock. A **discount rate** 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.
Funding surplus/deficit	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 **funding deficit**.
Funding ratio	This is the ratio of the value of assets to the **funding target.**
Funding target	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.
Present value	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 **discount rate**. This value is known as the **present value**.
Attained age method	For schemes **closed** to new entrants, the attained age method is often used as it calculates the cost of the benefits expected to accrue to members over their expected remaining membership of the scheme expressed as a percentage of their expected pensionable pay. It also allows for projected future increases in pay through to retirement or date of leaving service. The method is based on the current membership and takes no account of the possibility of new members joining the scheme. It is therefore used mainly for closed schemes where no new members are admitted as in these circumstances the required contribution rate is reasonably stable.
Prudent	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.
Recovery plan	Where a valuation shows a **funding shortfall** against the **technical provisions,** trustees must prepare a **recovery plan** setting out how they plan to meet the **statutory funding objective.**

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