



Merchant Navy Officers Pension Fund

**Report on the actuarial
valuation of the Post-1978
Section (the New Section) as
at 31 March 2012**

2 May 2013

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Throughout this document:

- “Fund” refers to the Merchant Navy Officers Pension Fund – Post-1978 Section (the New Section)
- “Trustee” refers to Merchant Navy Officers Pension Fund Trustees Limited
- “Employers” refers to Participating Employers that are required to contribute to the New Section

Further definitions and terms in italics are explained in the glossary (Appendix H).

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Section 1: Summary of main conclusions

Introduction

- 1.1 This is my report on the *actuarial valuation* of the Merchant Navy Officers Pension Fund – Post-1978 Section (the New Section) as at 31 March 2012. The report is addressed to the Trustee.
- 1.2 The main purposes of the *actuarial valuation* are to review the financial position of the Fund relative to its *statutory funding objective*, as required under the Pensions Act 2004, and to determine the appropriate level of future contributions.
- 1.3 The *actuarial valuation* is required under the terms of Clause 26.0 of the Trust Deed and Rules dated 25 June 1999 (the Fund Rules) and Part 3 of the Pensions Act 2004. Both the Trustee and Employers have an interest in the valuation process and, as required by law, a copy of this report must be provided to the Employers within seven days of the Trustee's receipt of it.
- 1.4 In this report I address the financial health of the Fund at 31 March 2012 using two different measures of the liabilities. I explain how the funding position has changed since the previous valuation as at 31 March 2009. I also describe the strategy that has been determined by the Trustee for financing the Fund in the future and provide projections of the funding position at the expected date of the next valuation. Finally I describe the approach adopted for managing the risks to which the Fund is exposed.
- 1.5 This valuation is based on the *Statement of Funding Principles* determined by the Trustee dated 2 May 2013. The principal conclusions of the valuation are summarised below.

Ongoing funding position

- 1.6 **Past service:**
 - On the assumptions adopted by the Trustee, the Fund had a 'gross' deficit relative to its *statutory funding objective* of £492 million at the valuation date. This means that the assets of £2,169 million covered 82% of the Fund's *technical provisions*.
- 1.7 However deficit contributions from the 2003, 2006 and 2009 valuations still to be paid over the period to 30 September 2020 had a present value of £340m, producing a 'net' deficit to be met of £152m.
- 1.8 **Recovery plan:** the Trustee has decided that the Employers will meet the deficit by paying additional contributions from 30 September 2013 to 30 September 2025. The Trustee will decide the payment terms for each Employer in accordance with the Trustee's Contribution Collection Policy. If the assumptions set out in the *Statement of Funding Principles* are borne out in practice, the deficit will be removed within a period of 13.5 years from the valuation date.

- 1.9 **Future service:** on the assumptions adopted, the joint contribution rate required to fund future benefits for Active Members is 32.2% of Post-2000 Pensionable Salaries. This rate will come into effect from 1 October 2013, with Employers paying 20.0% and Active Members paying 12.2% of Post-2000 Pensionable Salaries (subject to the outcome of a member consultation exercise). Employers who have employed Active Members since 1 April 2012 will also pay additional contributions by 30 September 2013 equal to 7.2% of Post-2000 Pensionable Salaries over the period from 1 April 2012 to 30 September 2013 to make up the increase in the joint contribution rate for this period.
- 1.10 The Pensions Act 2004 requires the *schedule of contributions* to be finalised following my signing this report. The Trustee will also need to submit a *recovery plan* to the *Pensions Regulator*.

Discontinuance position

- 1.11 If the Fund had been discontinued and wound up at the valuation date, I estimate there would not have been sufficient assets to secure the accrued benefits through the purchase of annuity policies with an insurer. My estimate of the solvency of the Fund at the valuation date is that the Fund's assets would have met 67% of the cost of securing benefits at that date. The approach I have followed in making this estimate is specified in Section 4 of this report. In the event that the Fund is unable to obtain a full buy-out it would continue to run on, but cutting back benefits in order to comply with the statutory priority orders.

Reporting to members

- 1.12 The Trustee is required to disclose to members, in a *summary funding statement*, certain outcomes of this *actuarial valuation* within a reasonable period of its completion.

Next actuarial valuation

- 1.13 The financial position of the Fund and the level of contributions to be paid, if any, will be reviewed at the next *actuarial valuation*, which is expected to be carried out as at 31 March 2015. However in the intervening years the Trustee will obtain annual *actuarial reports* on developments affecting the Fund's assets and *technical provisions*. The first such report as at 31 March 2013 must be completed by 31 March 2014.



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Section 2: Background to the valuation

Purposes of the valuation

2.1 The main purposes of the actuarial valuation are to:

- Review the financial position of the Fund both in accordance with Clause 26.0 of the Trust Deed and Rules and relative to its *statutory funding objective* as required by Section 224 of the Pensions Act 2004, and so to determine the appropriate level of future contributions;
- Examine the extent to which the Fund's resources would have been adequate to secure accrued benefits if it had discontinued at the valuation date; and
- Provide the statutory certificate required under Section 222 of the Pensions Act 2004.

Previous valuation and contributions paid since then

2.2 The previous actuarial valuation of the Fund was carried out by me as at 31 March 2009. The main results were:

- A past service deficit on an ongoing basis of £740 million which meant that the Fund's assets of £1,547 million were expected to cover 68% of the benefits earned for service to 31 March 2009.
- The Trustee agreed that contributions in addition to those arising from the 31 March 2003 and 31 March 2006 valuations will be paid to the Fund by the Participating Employers over the period to 30 September 2022. These additional contributions had a present value of £402 million as at 30 September 2010.
- The funding deficit was expected to be eliminated by 30 September 2022. This expectation was based on assuming an additional return of 12% on the assets, above the average return assumed on the calculation of the *technical provisions*, over the period between the valuation date and 31 December 2009.
- The annual joint contribution rate required to cover the accrual of benefits for future service over the period to the next actuarial valuation was 25.0% of members' Post-2000 Pensionable Salaries, calculated on the same assumptions as the *technical provisions*. This rate came into effect from 1 October 2010, with Employers paying 15.5% and Active Members paying 9.5% of Post-2000 Pensionable Salaries.
- The actual total contributions (excluding members' Additional Voluntary Contributions) paid between 31 March 2009 and 31 March 2012 were £352 million.

Legislative changes and other material developments

- 2.3 This is the third valuation subject to the requirements of the Pension Act 2004 and associated regulations (including the codes of practice issued by the *Pensions Regulator*). There have been no material, relevant, legislative changes since 31 March 2009. A summary of governing legislation at the valuation date is provided in Appendix C.

Fund benefits valued

- 2.4 I have valued the Fund's benefits as set out in the Trust Deed and Rules dated 25 June 1999, as subsequently amended. A summary of the main benefits is shown in Appendix A.
- 2.5 There have been no changes to the Rules in the three years to the valuation date that materially affect the results of the actuarial valuation.
- 2.6 Possible discretionary bonuses to benefits are considered by the Trustee each year under Rule 6.6. No increase has been given for this valuation, and no allowance has been made on this occasion for future discretionary bonuses.

Membership data

- 2.7 In order to carry out the present valuation, I have obtained detailed information regarding the membership of the Fund from the administrators. A summary of the data supplied is shown in Appendix B.
- 2.8 I have taken reasonable steps to satisfy myself that the data provided is of adequate quality for the purpose of the valuation.
- 2.9 Some benefits due to members are unclaimed, in that members are above normal retirement age, but the Trustee has no knowledge of their whereabouts. I have made a reasonable provision for this feature, by assuming that payments due to such members in the past will not be paid, but including a reserve for all future payments due.

Assets

- 2.10 I have been provided with audited accounts for the three-year period since the previous valuation. The accounts for the year ended 31 March 2012 confirm that the market value of the Fund's assets was £2,169 million at the valuation date. A summary of the main classes of the Fund's assets is shown in Appendix B. The corresponding market value of assets at the date of the previous valuation was £1,547 million.
- 2.11 For both the previous and current valuations, a market value approach has been adopted, so that assets are taken at market value and the liabilities are calculated using market-consistent discount rates. In this way we have ensured that the liabilities and assets have been valued consistently.

Section 3: The funding position

- 3.1 This part of the actuarial valuation reviews the financial position of the Fund relative to its *statutory funding objective*. From this assessment we determine the level of contributions required to meet the funding objectives.
- 3.2 There are normally three stages to the assessment of the financial position relative to its funding objectives:
- First, we compare the Fund's assets with the value of the benefits earned in respect of service up to the valuation date (the *technical provisions*);
 - If this reveals a deficit, a *recovery plan* to remove this deficit with additional Employer contributions over a suitable period is required.
 - Finally, we calculate the cost of the continuing accrual of benefits for employed members after the valuation date, so that the funding plan remains on track.

Funding objectives

- 3.3 The Trustee's funding objective is the *statutory funding objective*, which is to have sufficient and appropriate assets to cover its *technical provisions* (i.e. the amount that the Trustee has determined should be set aside to meet the Fund's liabilities).
- 3.4 Having considered the support available for the Fund from the Employers, and having consulted the Employers, the Trustee has determined the funding objective for the Fund and the method and assumptions for calculating the Fund's *technical provisions*. These are set out in the *Statement of Funding Principles* dated 2 May 2013, which is included as Appendix D. These methods and assumptions implicitly assume that the Fund is not discontinued.
- 3.5 The *funding objective* has not changed since the last valuation.

Method and assumptions for calculating technical provisions

- 3.6 The *technical provisions* are a measure of the Fund's liabilities calculated as the present value of the projected benefits earned up to and including the valuation date. The benefits taken into account in this *actuarial valuation* are described in Appendix A of this report.
- 3.7 The *technical provisions* are calculated by first projecting the benefits expected to be paid in each year after the valuation date (including allowance for prospective increases in benefits before or after retirement) and then discounting the resulting cashflows to a present value. The projections allow for benefit payments being made from the Fund over the next 50 or so years. The funding method used is the Projected Unit Credit method, which is the same method that was used for the last valuation.

- 3.8 The table below summarises the key financial assumptions used to calculate the Fund's *technical provisions* for this and the previous *actuarial valuation*. The financial assumptions at each valuation date are determined in the light of investment and economic conditions as at the effective valuation date and the funding principles adopted at each date.

Financial assumptions	31 March 2012		31 March 2009	
	Nominal % pa	Real % pa	Nominal % pa	Real % pa
Price inflation (RPI)	3.2	-	3.0	-
Price inflation (CPI)	2.2	(1.0)	n/a	n/a
Investment return on existing assets (<i>'discount rate'</i>)				
• Pre-retirement	5.7	2.5	7.25	4.25
• Post-retirement	4.0	0.8	4.75	1.75
Pension increases:				
• Pre-97 service (in excess of GMP)	0.0	(3.2)	0.0	(3.0)
• Post-88 GMP	1.9	(1.3)	2.5	(0.5)
• Post-97 service	3.0	(0.2)	3.0	0.0
Section 148 increases	4.2	1.0	4.5	1.5

- 3.9 The post-retirement *discount rate* reflects yields available on index linked gilts and AA corporate bonds (split approximately 25% and 75% respectively) with an appropriate margin for prudence to allow for possible reinvestment risk.
- 3.10 Based on the current investment strategy in respect of non-pensioners and the Towers Watson Investment Model, there is around a 62% probability of achieving investment returns of at least 5.7% per annum over the next 15 years, based on the Fund's return-seeking asset portfolio.
- 3.11 Investment management costs are assumed to be met out of future investment income, and so the valuation *discount rate* is net of such costs. The administrative expenses of the Fund, including all *Pension Protection Fund* levies, are met out of the assets of the Fund as they are incurred. There is an allowance for expenses in the *technical provisions* of £35m, and in the joint contribution rate of 0.4% of Post-2000 Pensionable Salaries.
- 3.12 The key change to the financial assumptions since the last valuation is the reduction in the *discount rate*, reflecting the significant falls in both gilt and corporate bond yields and expected returns on equities since March 2009.
- 3.13 The table below summarises the key demographic assumptions used to calculate the Fund's *technical provisions* for this and the previous *actuarial valuation*.

Demographic assumptions	31 March 2012	31 March 2009
Mortality base tables:		
- Normal health male pensioners	85% of SAPS Heavy S1NMA tables projected to 2012 with CMI 2011 core projections with a long-term rate of 1.8% pa	80% of SAPS Heavy S1NMA tables with medium cohort improvements to 2009
- Normal health female pensioners	85% of SAPS Heavy S1NFA tables projected to 2012 with CMI 2011 core projections with a long-term rate of 1.8% pa	80% of SAPS Heavy S1NFA tables with medium cohort improvements to 2009
Future improvements in longevity	CMI 2011 core projections from 2012 with a long-term rate of 1.8% pa	Up to age 85: reductions in mortality rates of 2.5% pa until 2019, then 1.5% pa. From age 85: annual reductions decrease linearly from those at age 85 to 0.5% pa at age 110.
Proportion of pension exchanged for a lump sum at retirement	50% of the maximum lump sum	

3.14 The main changes in the demographic assumptions compared to those used in the previous valuation are the following:

- The post-retirement mortality basis has been adjusted to reflect current experience of the Fund;
- Allowance for future improvements in mortality was adjusted in line with general market trends and to reflect the newly published CMI mortality future improvement tables.

3.15 The experience of the Fund since the last valuation compared to the assumptions at that valuation is described in section 3.19.

3.16 Full details of the financial and demographic assumptions used for this *actuarial valuation* are set out in the *Statement of Funding Principles* dated 2 May 2013.

Past service – comparing assets with technical provisions

3.17 The table below compares the Fund's *technical provisions* at the date of the *actuarial valuation* with the market value of the Fund's assets and the corresponding figures from the previous *actuarial valuation*:

Valuation statement	31 March 2012 £m	31 March 2009 £m
Amount required to provide for the Fund's past service liabilities of:		
Active Members	428	410
Deferred Pensioners	787	671
Current Beneficiaries	1,408	1,168
Expenses	35	35
AVCs	3	3
Total value of accrued benefits (<i>technical provisions</i>)	2,661	2,287
Market value of assets	2,169	1,547
'Gross'* surplus/(deficit) (assets less <i>technical provisions</i>)	(492)	(740)
Funding level (assets/ <i>technical provisions</i>)	82%	68%

* gross of the value of the deficit contributions from the 2003, 2006 and 2009 valuations to be paid after 31 March 2012.

- 3.18 I confirm that, for the purpose of this comparison, the basis for valuing the Fund's assets is compatible with the basis for valuing its liabilities.
- 3.19 A broad analysis of the factors contributing to the change in the financial position since 31 March 2009 is shown below. It should be appreciated that placing numerical values on each of these factors depends critically on the order in which the calculations are carried out, and different approaches can give different (but equally valid) answers.

Reconciliation from 31 March 2009 to 31 March 2012	£m
(Deficit) as at 31 March 2009	(740)
Interest on deficit	(140)
Investment gain	343
Contributions gain	335
Experience items (membership movements, pension increases and expense experience)	21
Change from RPI to CPI for Statutory Increases	30
Change in financial assumptions	(289)
Change in demographic assumptions	(52)
(Deficit) as at 31 March 2012 (gross of outstanding 2003, 2006 and 2009 deficit payments)	(492)

- 3.20 It is advisable to monitor the Fund's finances on a regular basis because movements in the market value of assets can make the funding position volatile. The Trustee is required by law to obtain annual *actuarial reports* on developments affecting the Fund's assets and *technical provisions* in years when a formal actuarial valuation is not carried out. The first such *actuarial report* as at 31 March 2013 must be completed by 31 March 2014.

- 3.21 As Scheme Actuary I am required to certify that the *technical provisions* were calculated in accordance with Section 222 of the Pensions Act 2004. My certificate for this purpose is included in Appendix G.
- 3.22 Please note that the *technical provisions* are not an estimate of the cost of securing the benefits if the Fund were to wind up.

Recovery Plan

- 3.23 As there was a deficit relative to the *technical provisions* at the valuation date, a recovery plan must be put in place. This specifies how and by when the statutory funding objective is expected to be met.
- 3.24 The value as at 31 March 2012 of the outstanding deficit contributions arising from the 31 March 2003, 31 March 2006 and 31 March 2009 valuations was £340 million, leading to a 'net' funding deficit as at 31 March 2012 of £152 million.
- 3.25 The Trustee have agreed that contributions in addition to those arising from the 31 March 2003, 31 March 2006 and 31 March 2009 valuations will be paid to the Plan by the Employers over the period to 30 September 2025. These additional contributions will have a present value of £120 million as at 31 March 2012. The Trustee will decide the payment terms for each participating employer in accordance with the Trustee's Contribution Collection Policy.
- 3.26 The funding deficit is expected to be eliminated by 30 September 2025. This expectation is based on the assumptions underlying the *technical provisions* with changes as set out below:
- The return on Fund assets during the period from the valuation date to 30 September 2025 is 0.375% per annum in excess of the average discount rate, used in the calculation of the *technical provisions*.

Future service contribution rate

- 3.27 The annual joint contribution rate required to cover the accrual of benefits for future service over the period to the next actuarial valuation is 32.2% of members' Post-2000 Pensionable Salaries, calculated on the same assumptions as the *technical provisions*. This rate is expected to come into effect from 1 October 2013, with Employers paying 20.0% and Active Members paying 12.2% of Post-2000 Pensionable Salaries.
- 3.28 An allowance of 0.4% is included in this joint rate for expenses, including PPF levies.
- 3.29 Employers who have employed Active Members since 1 April 2012 will also pay additional contributions by 30 September 2013 equal to 7.2% of Post-2000 Pensionable Salaries over the period from 1 April 2012 to 30 September 2013, to make up the increase in the joint contribution rate for this period.

- 3.30 The joint contribution rate has been calculated as the rate required over the next four years following the valuation date to meet the cost of the benefits expected to be earned over that period. On this basis, this rate will be sufficient, if the assumptions are borne out in practice, to cover the accrual of benefits for the next four years.
- 3.31 This approach makes some allowance for the fact that because the Fund is closed to new entrants, the average age of the employed membership is expected to rise with time. When this happens, the contribution rate required to cover accruing benefits is expected to rise (as there is a shorter period over which investment returns can be earned on the contributions). Due to this allowance, the rate of contributions payable is expected to remain stable until after the next valuation if experience is in line with the assumptions.

Section 4: The position of the Fund on discontinuance

- 4.1 This section of the report considers what would happen to the Fund on discontinuance. The Trustee may decide to discontinue the Fund if satisfied that the majority of the Employers and members desire it. Also, the Fund would be discontinued if all Employers terminated their liability to contribute or ceased to exist. Given that there are many Employers to call upon, and the prospect of them all failing is remote, the probability of discontinuance is low. However, regulations require this information to be given for all pension schemes, irrespective of their particular circumstances.
- 4.2 In the event that the Fund is discontinued, Active Members would become deferred pensioners with no entitlement to future service benefits and the Fund would have liabilities comprising:
- the pensions currently and prospectively payable to pensioners and deferred pensioners (and contingent pensions payable to their dependants);
 - future increases to deferred pensions before retirement;
 - future increases to pensions whilst in payment; and
 - an allowance for expenses.
- 4.3 If the discontinuance is not the result of the insolvency of the Employers, current legislation imposes a debt ("the employer debt") on the Employers equal to any shortfall between the Scheme Actuary's estimate of the full cost of securing an accrued benefit with an insurance company (including expenses) and the value of the Fund's assets. The Trustee would then normally try to make the benefits secure by buying insurance policies to provide the benefit payments. The Trustee may, however, decide to run the Fund as a closed fund for a period of years before buying such policies if it is confident that doing so is likely to produce higher benefits for members or if there are practical difficulties with buying insurance policies, such as lack of market capacity.
- 4.4 If the discontinuance is a result of the insolvency of the Employers, the Fund will probably be assessed for possible entry to the Pension Protection Fund ("PPF"). In this case, it is also unlikely that any employer debt could be paid in full by the Employers. If the assessment concluded that the assets were not sufficient to secure benefits equal to the PPF compensation, the Fund would then apply for entry to the PPF. Otherwise the Fund would be required to wind up.
- 4.5 Under Section 179 of the Pensions Act 2004, the Trustee is required to provide the PPF with a valuation of the Fund that the PPF can use to determine the levy it charges. This valuation uses assumptions specified by the PPF and covers only benefits similar to the PPF compensation benefits. I calculate that at 31 March 2012 the Fund's assets covered 81% of the Section 179 liabilities.

Estimate of the solvency of the Fund

- 4.6 The Pensions Act 2004 requires that I provide the Trustee with an estimate of the solvency of the Fund at the valuation date. Normally, this means an estimate of the proportion of the benefits described in paragraph 4.2 that could have been secured by buying insurance policies. For this purpose I have assumed that no further payments are received from the Employers.
- 4.7 I have assumed that the insurance company price would be calculated on an actuarial basis similar to that implied by bulk annuity quotations seen by Towers Watson at around the valuation date. I have assumed winding-up costs of £50 million.
- 4.8 The tables below summarise the key assumptions used to estimate the Fund's solvency position at this and the previous actuarial valuation.

Financial assumptions	31 March 2012 % pa	31 March 2009 % pa
Pensioner discount rate	3.35	4.0
Non-pensioner discount rate	2.85	3.5

Statutory increases in deferment and payment assumed to be based on RPI rather than CPI as insurers do not currently price for CPI increases.

All other assumptions are as per the *technical provisions*, except that the allowance for commutation has been removed.

- 4.9 My estimate of the solvency position of the Fund at 31 March 2012 is that the assets of the Fund would have met 67% of the cost of buying insurance policies to secure the benefits at that date. Further details are set out in the table below alongside the corresponding details as at the previous valuation date:

	31 March 2012 £m	31 March 2009 £m
Solvency liabilities	3,244	2,935
Assets	2,169	1,547
Solvency deficit	(1,075)	(1,388)
Solvency level	67%	53%

- 4.10 The change in the solvency level from 53% to 67% is due mainly to the investment performance of the Fund's assets and the deficit contributions paid since the last valuation.
- 4.11 This solvency estimate should not be relied on to indicate the position on a future winding up. Changes in market interest rates and in the supply and demand for annuities mean that the

actual position at any particular point in time can be established only by buying the insurance policies required to secure the benefits.

- 4.12 The coverage for particular benefits depends on where they fall in the *statutory priority order* below. However, money purchase liabilities, such as those arising from members' Additional Voluntary Contributions (AVCs), are excluded from the *statutory priority order*; their treatment is determined by the Fund's own rules and would normally be that they are secured in full before any other benefits.
- category 1 – the cost to the Fund of securing the liabilities for pensions and other accrued benefits that would be payable by the PPF (if the Fund were eligible for entry to the PPF);
 - category 2 – all other pensions and benefits provided by the Fund, including pension increases (where these exceed those under the PPF);
- 4.13 As the Fund's assets did not cover the value of the Section 179 liabilities as at 31 March 2012 - see paragraph 4.5 – the Fund would probably have qualified for entry to the PPF had the Employers become insolvent at 31 March 2012, in which case members would have received PPF compensation in place of their benefits.

Relationship between the technical provisions and the solvency liabilities

- 4.14 My estimate of the value of the Fund's solvency liabilities of £3,244m is £583m higher than the Fund's *technical provisions* of £2,661m. This means that the cost of securing the Fund's benefits with an insurer is higher than the amount that the Trustee has determined to be required to make provision for the Fund's liabilities. This is because the *technical provisions* are intended to be a prudent assessment of the assets required under the Fund's investment strategy to meet future benefit payment; by contrast the estimated value of the solvency liabilities takes into account different issues such as supply and demand for insured annuities, return on capital, statutory reserving requirements and investment constraints.
- 4.15 If the *statutory funding objective* had been exactly met on 31 March 2012 (i.e. there had been no funding surplus or deficit), I estimate that the solvency level of the Fund would have been approximately 82%. This compares with 78% at the 31 March 2009 *actuarial valuation*, which means that the Trustee's *funding target* has improved relative to insurance company prices since the previous valuation.

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Section 5: Sensitivity to the results and Fund risks

- 5.1 Based on the assumptions underlying the *recovery plan* (as summarised in Section 3), and allowing for contributions to be paid to the Scheme in accordance with the agreed *schedule of contributions* (as summarised in Section 2), the funding and solvency levels are projected to develop as follows by the expected date of the next actuarial valuation.

	31 March 2012 %	31 March 2015 %
Funding level	82	89
Solvency level	67	75

- 5.2 The assumptions used to determine the Fund's funding and discontinuance positions each represent only one possible scenario of future events. To the extent that the actual experience turns out to be different from the assumptions, the financial position of the Fund will be affected.

Sensitivity to investment conditions

- 5.3 The financial assumptions made in determining the funding target are described in the *Statement of Funding Principles*. They cover, amongst other things, the approach used to determine the discount rates for the liability calculation. The results of the valuation are particularly sensitive to the discount rates chosen.
- 5.4 The possible variation in outcomes is considerable given the proportion of assets expected to be invested in volatile assets such as equities which may not move in line with the assessment of the liabilities, which is based predominantly on bond yields. The Trustee, members and the Employers should therefore be aware of the sensitivity of the results to future investment conditions.
- 5.5 If future investment returns over the long term are lower than assumed, then other things being equal the cost of providing the benefits will be higher than calculated in this valuation, which means that unless contributions are adjusted to reflect the experience, the funding position of the Fund will fall short of the expected position.
- 5.6 I have illustrated in the table below the sensitivity of the *technical provisions* as at 31 March 2012 to a variation of key assumptions (if more than one assumption is varied, the effect may be greater than the sum of the changes from varying individual assumptions).

	Adopted for the technical provisions % pa	Alternative for Illustration % pa	Revised funding level %
Pre-retirement discount rate	5.7	5.2	81
Post-retirement discount rate	4.0	3.75	79
RPI (and corresponding pension increases)	3.2	2.95	82*
Future improvements in longevity (long-term rate)	1.8	1.6	82**

* Funding level increase of 0.8%, which is lost in the rounding in this illustration

** Funding level increase of 0.6%, which is lost in the rounding in this illustration

- 5.7 I have illustrated in the table below the sensitivity of the *solvency* position as at 31 March 2012 to a variation of key assumptions (if more than one assumption is varied, the effect may be greater than the sum of the changes from varying individual assumptions).

	Adopted for the solvency estimate % pa	Alternative for Illustration % pa	Revised solvency level %
Pensioner discount rate	3.35	3.1	66
Non-pensioner discount rate	2.85	2.6	65
RPI (and corresponding pension increases)	3.2	2.95	68
Future improvements in longevity (long-term rate)	1.8	1.6	67*

* Funding level increase of 0.4%, which is lost in the rounding in this illustration

- 5.8 'Catastrophic' investment conditions which would produce significantly worse funding positions than those shown in the above table are also possible.

Covenant risk

- 5.9 The *Statement of Funding Principles* and the assumptions underlying it are based on a presumption that the Employers remain ongoing, viable entities and that their support to the Fund may be relied on. The Trustee may seek to revise the Statement if they cease to regard this to be the case. It is therefore important that the Trustee continue to monitor the covenant of the Employers and respond promptly to any material deterioration in the overall covenant.

Key risks to the Fund

- 5.10 The table below summarises the key risks to the financial position of the Fund and the actions taken to manage them:

Risk	Approach taken to risk
Employers unable to pay contributions or make good deficits in the future	<p>At each valuation the Trustee takes advice from an independent specialist on the ability of the Employers to pay contributions to the Fund and, in particular, to make good any shortfall that may arise if the experience of the Fund is adverse,</p> <p>This advice is taken into account when determining the level of <i>technical provisions</i> and in considering the appropriateness of any <i>recovery plan</i> to remove a deficit relative to the <i>technical provisions</i>.</p> <p>Between valuations the Trustee monitors the Employers' financial strength regularly.</p>
Future investment returns could be insufficient to meet the Trustee's funding objectives	<p>The Trustee takes advice from the Scheme Actuary on possible assumptions for future investment. For the calculation of the Fund's <i>technical provisions</i>, the Trustee has adopted discount rates that are lower than the expected returns on the Fund assets.</p> <p>The Trustee is able to require further contributions from the Employers at subsequent valuations if future returns prove insufficient.</p>
Investment returns on future income could be lower than the returns available at the valuation date	<p>The Trustee takes this risk into account when determining the Fund's <i>technical provisions</i>.</p>
Falls in asset values may not be matched by similar falls in the value of the Fund's liabilities	<p>The Trustee considers this risk when determining the Fund's investment strategy. It consults with the Employers in order to understand the Employers' appetite for bearing this risk and takes advice on the Employers' ability to make good any shortfall that may arise.</p> <p>To the extent that such falls in asset values result in deficits at future valuations, the Employers would be required to meet a <i>recovery plan</i> set by the Trustee to restore full funding over a period of time.</p>
Price inflation could be different from that assumed which could result in higher liabilities	<p>The Trustee invests in assets that are expected to be correlated to future inflation in the longer term (sometimes referred to as "real" assets). This means that, over the longer term, such assets are expected to keep pace with inflation. Such assets include equities, property and index-linked bonds.</p>

Risk	Approach taken to risk
Fund members live longer than assumed	For the calculation of the <i>technical provisions</i> , the Trustee has adopted mortality assumptions that it regards as prudent estimates of the life expectancy of members so that higher reserves are targeted in respect of the risk than are expected to be necessary.
Options exercised by members could lead to increases in the Fund's liabilities	<p>The Trustee sets the terms for converting benefits in respect of member options on the basis of actuarial advice with the view to avoiding strains on the Fund's finances as far as is reasonably possible without disadvantaging members.</p> <p>The terms are kept under regular review, generally following each actuarial valuation</p>
Legislative changes could lead to increases in the Fund's liabilities	The Trustee takes legal and actuarial advice on changes in legislation and consults with the Employers, where relevant

Appendix A: Summary of Fund benefits

The benefits payable to individual members of the Fund as at 31 March 2012 are described in the Trust Deed Rules dated 25 June 1999 as subsequently amended. I set out below a summary of those benefits.

Normal Pension Age (NPA)	61
Pensionable Salary	The Salary received by a member in a Fund Year less 1½ times the Lower Earnings Limit applicable to that Fund Year. Some components of remuneration are excluded from Salary. Full details are in the Trust Deed and Rules.
Post-2000 Pensionable Salary	The Salary received by a member in a Fund Year less the Lower Earnings Limit applicable to that Fund Year.
Average Revalued Pensionable Salary (ARPS)	This is calculated by adding each year's Pensionable Salary (including Pensionable Salary in respect of service after 30 September 2000) revalued in line with Section 148 Orders and dividing by the total number of years of service.
Post-2000 Average Revalued Pensionable Salary (Post-2000 ARPS)	This is calculated by adding each year's Post-2000 Pensionable Salary revalued in line with Section 148 Orders and dividing by the total number of years of service after 30 September 2000.
Retirement at NPA	A pension of one-fortieth of ARPS for each year of service before 1 April 1997 and one-sixtieth of ARPS for each year of service from 1 April 1997 to 30 September 2000 and one-eightieth of Post-2000 ARPS for each year of service after 30 September 2000.
Retirement before NPA	An immediate pension calculated as for retirement at NPA but reduced to reflect early payment, on the consent of the Trustee.
Retirement due to incapacity	<p>a Service between 2 and 10 years The pension calculated as above based on service to the date of retirement payable immediately with no actuarial reduction for early payment.</p> <p>b Service of 10 years or more A pension as above plus one-off cash payment on retirement, based on past service to the date of ill-health retirement plus potential service from the date of ill-health retirement to normal pension age, equal to 1/75th of ARPS for each year.</p> <p>c Members with 10 or more years' service who were aged 40 or over on 31 March 1987 qualify in some cases for an enhanced pension.</p>

Death after retirement

A spouse's pension of 50% of the member's pension (calculated as if no commutation for lump sum has taken place at retirement and as if no reduction had been applied on early retirement) together with a cash sum if death occurs within 5 years of retirement, plus children's allowances.

Death in Service

A lump sum of twice salary together with a spouse's pension of 50% of the member's pension earned to the date of death, plus children's allowances.

Leaving Service

A deferred pension, a transfer to another registered pension arrangement or, if the member has less than two years' service, a refund of contributions.

Pension increases**Pension in respect of service before 1 April 1997**

Pension in payment, in excess of the GMP, has no guaranteed increases, although the Trustees may exercise their discretion to award increases.

GMPs in respect of service between 6 April 1988 and 5 April 1997 increase in line with the Consumer Prices Index subject to a maximum of 3% each year.

Pension in respect of service after 31 March 1997

Pension increases in line with the Retail Prices Index subject to a maximum of 5% each year.

Appendix B: The information supplied

The information supplied to us for the purposes of the valuation is summarised below; the corresponding amounts from the previous valuation are shown for comparative purposes.

Membership data

	31 March 2012		31 March 2009	
	Number	Pension ² £m pa	Number	Pension ² £m pa
Active Members ¹	1,048 ³	22.1	1,469 ⁴	26.9
Deferred pensioners	10,705	45.9	12,753	47.5
Pensioners	12,185	84.4	11,248	76.2
Widow(er)s and dependants	3,897	9.6	3,589	7.8
Total	27,835		29,059	

Notes:

1. The Post-2000 Pensionable Salary roll for members accruing new benefits totalled £52.1m at 31 March 2012 (£65.0 at 31 March 2009)
2. Amounts for non-pensioners include allowance for notional revaluation to the valuation date and for pensioners include increases at the April following the valuation date.
3. As at 31 March 2012, includes 3 members of a Private Scheme, and 67 other members whose last contribution was made before March 2012.
4. As at 31 March 2009, includes 12 members of a Private Scheme, and 105 other members whose last contribution was made before March 2009.

Assets

The audited accounts supplied for the Fund year ended on 31 March 2012 show that the market value of the Fund's assets was £2,169 million. The change in the Fund's assets from £1,547m as at 31 March 2009 to £2,169m at 31 March 2012 is detailed in the Trustee's Report and Financial Statements over that period. The table below summarises a broad reconciliation of the change:

	£m	£m
Assets at 31 March 2009		1,547
Contributions received:		352
- Employers	337	
- Active Members	15	
Benefits paid:		(323)
- Pension payments	(270)	
- Lump Sums at retirement and death	(40)	
- Transfers Out	(13)	

	£m	£m
Administration Expenses		(41)
Change in market value of investments and investment income net of investment expenses		634
Assets at 31 March 2012		2,169

As at 31 March 2012, the assets were invested as summarised below.

	Market value as at 31 March 2012	
	£m	%
Equity	438	20.2
Hedge Funds	207	9.6
Private Equity	85	3.9
Other return seeking	275	12.7
Property	58	2.7
UK Gilts	705	32.5
UK Corporate Bonds	130	6.0
Overseas Bonds	220	10.2
Cash and net current assets	48	2.2
Total (excluding AVCs)	2,166	100.0

The Fund also holds assets of £3.1m, in addition to the above, in respect of AVCs.

The Trustee's investment objectives (as set out in the Statement of Investment Principles) are:

- to acquire suitable assets of appropriate liquidity which will generate income and capital growth to meet, together with contributions from MNOFF members and employers, the cost of current and future benefits which the MNOFF provides; and
- to limit the risk of the MNOFF's assets failing to meet the MNOFF's liabilities over the long term.

Appendix C: Legislative background

Pensions Act 2004 (and associated regulations)

The Pensions Act 2004 introduced new requirements on the funding of UK defined benefit pension arrangements and several other measures that affect the Fund. These requirements also applied to the previous valuation of the Fund and are summarised below:

Scheme funding

The key parts of the Scheme Specific Funding Regime are:

- *Statutory funding objective* – this is a requirement that the Fund has sufficient and appropriate assets to meet its *technical provisions*. The *technical provisions* mean the Actuary's assessment, calculated on the Fund-specific assumptions determined by the Trustee, of the amount required to meet the Fund's liabilities as they fall due.
- *Statement of Funding Principles*: this is a document prepared by the Trustee which must set out its policy for ensuring that the *statutory funding objective* is met. That is, it must in particular set out the Trustee's choice of methods and assumptions for determining the Fund's *technical provisions*, after taking advice from the Actuary. The regulations require the Trustee to consult the Employers on the content of the *Statement of Funding Principles*.

The principal purpose of the actuarial valuation is to assess whether the Fund meets its *technical provisions* at the effective date of the valuation, based upon the method and assumptions specified in the *Statement of Funding Principles*. The Actuary has to certify that the calculation of the *technical provisions* at the valuation was in accordance with the prescribed requirements.

It is important to note that the legislation does not require schemes to fund at a level sufficient to meet the buy out cost of the liabilities, or even the buy out cost of the 'protected liabilities' under the *Pension Protection Fund*. The Trustee is required, however, to obtain the Actuary's estimate of the Fund's solvency position at the effective date of the valuation.

If the valuation reveals that the Fund does not have sufficient assets to cover its *technical provisions*, the Trustee is required to prepare a *recovery plan* to bring the Fund back to full funding (i.e. sufficient assets to cover the *technical provisions*) over a certain time frame. The *recovery plan* must be based upon advice from the Actuary and have regard to the nature and circumstances of the Fund.

The Trustee must consult the Employers about the *schedule of contributions* which specifies the contributions to be paid to the Fund by the Employers and the dates by which they are required to be paid. This schedule must be certified by the Actuary.

Other legislative changes since the last valuation

- For benefits built up after 5 April 2009, the statutory minimum increase to pensions in deferment changed to Retail Price Inflation subject to a cap of 2.5% a year from date of leaving service to retirement. This change does not affect the benefits provided by the fund.
- The Government has changed the inflation measure used for statutory pension increases from the Retail Price Index (RPI) to the Consumer Price Index (CPI). This change impacts on deferred revaluation and on some other fund benefits.
- From 6 April 2010, the Government increased the minimum age a member can retire except on grounds of ill health from 50 to 55.

Appendix D: Statement of Funding Principles

This Appendix is a copy of the text of the Fund's Statement of Funding Principles dated 2 May 2013.

Merchant Navy Officers Pension Fund – Post-1978 Section (the New Section)

Statement of Funding Principles

Status of this document

This Statement of Funding Principles sets out a written statement of the Trustee's policy in relation to scheme funding and other related matters. It has been prepared by MNOFP Trustees Limited, the Trustee of the Merchant Navy Officers Pension Fund ("the Fund") to satisfy the requirements of Section 223 of the Pensions Act 2004, after obtaining the advice of Mr C P Burbidge, the Scheme Actuary appointed by the Trustee.

The contents of this Statement of Funding Principles have been discussed with the participating employers in the Fund. This document is dated 2 May 2013 and is to be taken into account in the actuarial valuation of the New Section of the Fund as at the effective date of 31 March 2012.

Policy for securing that the Statutory Funding Objective is met

In common with most UK occupational pension schemes, the Fund is subject to the legislative requirement (referred to in the Pensions Act 2004 as the *statutory funding objective*) that it must have sufficient and appropriate assets to cover its *technical provisions* – these being generally interpreted as the amount required to be set aside in order to pay benefits from the Fund as and when they become due.

In order to meet these requirements under the Pensions Act 2004, the Trustee has established a long-term funding strategy. Regular actuarial valuations will be obtained to check the Fund's financial position compared to its *statutory funding objective*, the results of which will then form the basis for decisions concerning both the level of contributions paid into the Fund and the level of discretionary increases granted to members' benefits.

Method and assumptions used in calculating the technical provisions

The actuarial method to be used in the calculation of the *technical provisions* is the Projected Unit method, under which the salary increases assumed for each active member are projected until that member is assumed to leave active service by retirement, death or withdrawal from service.

In line with the legislative requirements, assumptions will be chosen to be sufficiently prudent, both for pensions already in payment and for future beneficiaries, to allow benefits to continue to be paid as they fall due. The assumptions have been chosen on the basis that the Fund should not expect to require its sponsors to make any future contributions over the life of the Fund. It is intended that the assumptions adopted for the calculation of the *technical provisions* will, where considered appropriate, include a suitable margin for adverse deviation. In particular:

- The assumed rate of return on investment for funding purposes will be based on the Fund's current and anticipated future investment strategy. It will have regard to the Fund's liability profile by allowing for different investment returns before and after retirement:

- The assumed investment return prior to retirement will be derived having regard to a prudent estimate of future returns from equities and any other return seeking asset classes held by the Fund.
- Returns post-retirement will be based on a closed fund approach, taking into account the Fund's expected long-term investment strategy in respect of its pensioner liabilities, having regard to the yields obtained on gilts and high quality corporate bonds.
- Mortality assumptions will have regard to information published by the UK actuarial profession's Continuous Mortality Investigation (the CMI). It is accepted however that actual Fund mortality may be different to that modelled by the 'standard' mortality tables. For this reason, the mortality assumptions adopted for funding purposes will, to the extent possible, take into account the membership's actual experience (as reviewed from time to time), and may have regard to the experience in other similar schemes. An allowance will be made in the assumptions for future improvements in longevity.
- Future Retail Price Inflation (RPI) (on which pension increases under the Fund Rules are based) will be assessed having regard to the redemption yields available on long-term index-linked and fixed-interest UK Government bonds at the valuation date. Reference may also be made to other relevant information and data published by the Bank of England, where considered appropriate. Consumer Price Inflation (CPI) is derived with reference to RPI, taking account of the views of the Office for Budget Responsibility and the Trustee.
- Other assumptions will be adopted after considering actuarial advice, and taking into account the experience of the Fund.

Consistent with the Pensions Regulator's guidance, it is intended that individual assumptions will be chosen with a level of prudence such that, when taken together, the Trustee has an appropriate level of confidence that the resultant funding target will prove adequate to pay benefits as they fall due. In making this assessment, the Trustee will consider both the Fund's estimated solvency position and the relative strength of the participating employers' covenant to the Fund.

Details of the principal assumptions to be used in the calculation of the *technical provisions* as at 31 March 2012 are set out in the Appendix.

Policy on discretionary increases and funding strategy

The Fund has no recent practice of making discretionary increases to benefits and the Fund's funding policy does not include any advance provision for the granting of such discretionary benefit increases.

In the event that any individual augmentations to benefits within the Fund requested by an employer are granted, it is expected that an appropriate special employer contribution equal to the associated increase in the Fund's *technical provisions* will be paid at the time that the augmentation is awarded.

However, where changes to benefit or contribution provisions affecting a group of members are being considered, for example through the formal amendment of the Fund Rules, the specific funding arrangements in relation to any change in liabilities associated with these amendments will be decided by the Trustee at that time.

Future service contributions

In order to determine the ongoing contributions in respect of future service, the Trustee's objective is to maintain the statutory funding objective.

Failure to meet the Statutory Funding Objective

If the assets of the Fund are less than the *technical provisions* at the effective date of any actuarial valuation, a Recovery Plan will be put in place, which may require additional contributions from the employers.

The level and period over which these additional contributions are to be paid will usually be decided by the Trustee after consultation with the participating employers. In determining the recovery period that will apply at each valuation, the Trustee will have regard to the size of the funding shortfall and the employers' financial circumstances. In making this latter assessment, the Trustee may take account of external market information concerning the participating employers or obtain specialist financial accounting advice.

The assumptions used to determine the amount of deficit recovery contributions will be consistent with those used to determine the *technical provisions*, unless the Trustee decides otherwise.

Future contributions if the Statutory Funding Objective is met

If the Statutory Funding Objective is met, the Trustee will have regard to the size of the surplus, the employers' financial circumstances and the discontinuance position in determining the required contributions.

Arrangements for other companies to contribute to the Fund

There are a number of associated and non-associated employers participating in the Fund. Apart from this, there are no arrangements in place for any other corporate entity to contribute to the Fund. The Trustee may accept guarantees relating to the payment of contributions by a participating employer from any corporate entity it determines.

Frequency of valuations and circumstances for extra valuations

The Fund's actuarial valuation under Part 3 of the Pensions Act 2004 is being carried out as at 31 March 2012. Subsequent valuations will, in normal circumstances, be carried out every three years. An actuarial report on developments affecting the Fund's *technical provisions* and funding level will be obtained annually.

The Trustee may bring forward the date of the next valuation if it feels it is appropriate in light of events affecting the Fund, for example significant adverse investment market changes or a significant change in the employers' financial circumstances.

Payments to the Employers

As a matter of regulation, there may be circumstances where it may be possible to pay surplus assets to the employers, if the assets of the Fund exceed the Scheme Actuary's estimate of the cost of buying out the benefits from an insurance company (although the Trustee does not foresee such circumstances arising). However, in order to do so the Trustee must comply with the requirements of Section 37 of the Pensions Act 1995. These include actuarial certification of the maximum amount that may be paid to the employers and a requirement that the Trustee is satisfied that it is in the interests of Fund members for such a payment to be made. The Trustee must also give notice of any such proposal to the Fund members.

Policy concerning payment of cash equivalent transfer values

Cash equivalent transfer values are currently intended to represent the expected cost to the Fund of providing the member's benefits, and are calculated having regard to investment market conditions at the time of the calculation. No allowance is made in the calculation for future salary increases or discretionary increases in pension payments.

UK legislation permits the Trustee to reduce cash equivalents below their normal level, subject to certain specific conditions being met, where the assets held by the Fund are considered insufficient to pay full cash equivalent transfer values in respect of all of the membership. No such reduction is currently applied to transfer values paid from the Fund.

Dates of review of this Statement

This Statement of Funding Principles will be reviewed by the Trustee no later than 15 months after the effective date of each actuarial valuation, due every three years.

This Statement of Funding Principles, dated 2 May 2013 has been agreed by the Trustee of the Merchant Navy Officers Pension Fund.

Signed on behalf of the Trustee of the Merchant Navy Officers Pension Fund

.....

Name: Peter McEwen

Position: Trustee Chairman

Date: 2 May 2013

Merchant Navy Officers Pension Fund – Post-1978 Section (the New Section)

Appendix to Statement of Funding Principles

Details of the principal assumptions to be used in the calculation of the *technical provisions* in the funding valuation as at 31 March 2012 are set out below.

Financial assumptions for the Technical Provisions

The rationale behind the financial assumptions used to determine the Fund's *technical provisions* can be summarised as follows:

Discount rate

Pre-retirement:

The pre-retirement discount rate will be based on a prudent assessment of the expected return from equities and any other return seeking asset classes held by the Fund, having regard to market conditions at the valuation date. The assumption adopted as at 31 March 2012 is 5.7% per annum.

Post-retirement:

The post-retirement discount rate will be based on returns expected from gilts and high quality corporate bonds. Reference will again be made to market conditions at the valuation date and, in the case of bond-related investments, to redemption yields on appropriate market indices. An appropriate margin of prudence may be included within the expected asset return, in order to allow for possible reinvestment risk. As at 31 March 2012, this assumption has been taken to be 4.0% per annum.

Section 148 increases

This assumption will typically be set having regard to historic experience. The assumption adopted as at 31 March 2012 is 4.2% per annum.

Salary increases

This assumption has only a limited impact on the level of a member's pension and has been set at the same level as the Section 148 increases assumption, at 4.2% per annum.

Retail Price Inflation (RPI):

This has been assessed having regard to the yield curve reflecting the inflation expectations implicit in UK Government bond prices as published by the Bank of England, and the average weighted duration of the Fund's accrued liabilities. The assumption adopted is 3.2% as at 31 March 2012.

Consumer Price Inflation (CPI):

This has been assessed relative to the RPI assumption reflecting a view at the valuation date of expected CPI relative to RPI over the long term. The Trustee also has regard to the inflation target given to the MPC of the Bank of England by the government. The assumption adopted is 2.2% as at 31 March 2012.

Pension increases:

These assumptions have been set reflecting the guaranteed level of increases under the Fund Rules and having regard to the central price inflation assumptions and the expected variation in inflation around the central assumption.

Post 97 pensions are guaranteed to increase each year by the lower of 5% or RPI. For the actuarial valuation as at 31 March 2012, it will be assumed that this increase will be at 3.0% per annum.

Post 88 GMP pensions are guaranteed to increase each year by the lower of 3% or CPI. For the actuarial valuation as at 31 March 2012, it will be assumed that this increase will be at 1.9% per annum.

No allowance has been made for discretionary pension increases.

Statistical/demographic assumptions for the Technical Provisions

The demographic assumptions concern the likelihood of events (for example, death) taking place at different ages. They also cover family statistics, such as the proportion of deaths giving rise to dependants' benefits and the ages of those dependants.

To ensure that the assumptions adopted remain appropriate, an analysis of the Fund's individual experience will typically be carried out every three years. It is expected that the next detailed analysis of the Fund's experience will be carried out as part of the 31 March 2015 valuation.

The various demographic assumptions used to calculate the *technical provisions* as at 31 March 2012 are summarised below.

Mortality:	"Heavy" SAPS amounts table projected to 2012 with CMI 2011 core projections with a long term rate of future improvements of 1.8% pa. Multipliers of 85% for normal members and male spouses, 105% for ill-health pensioners and 85% of the corresponding widow's table for female spouses are applied.
Mortality future improvements:	CMI 2011 core projections with a long term rate of future improvements of 1.8% pa.
Retirements:	Members are assumed to retire at their Normal Pension Age with no allowance for early retirement except on grounds of ill-health, as shown below.
Withdrawals:	Allowance has been made for withdrawals from service, as shown below.
New Entrants:	No allowance for new entrants has been made.
Commutation:	An allowance for 50% of the maximum lump sum taken at retirement has been made.
Family details:	Husbands are assumed to be three years older than their wives and 80% of males and 60% of females will be or were married at Normal Pension Age or have eligible dependants.
Transfer values:	No allowance is made for transfers out of the Fund.

The tables on the next page illustrate the allowances that are to be made for mortality, withdrawals from service and retirement at various ages.

Men

Current age	Number leaving the Fund in the next year as a result of:		
	Death before retirement (per 100 members)	Withdrawal from service (per 100 members)	Ill-health Retirement (per 100 members)
20	0.0	9.0	0.0
30	0.1	8.8	0.0
40	0.3	5.6	0.5
50	0.7	2.9	1.5
60	1.1	0.0	2.4

Women

Current age	Number leaving the Fund in the next year as a result of:		
	Death before retirement (per 100 members)	Withdrawal from service (per 100 members)	Ill-health Retirement (per 100 members)
20	0.0	9.0	0.0
30	0.0	8.8	0.0
40	0.1	5.6	0.5
50	0.2	2.9	1.5
60	0.5	0.0	2.4

Expenses

An expense allowance of £35m (past service) and 0.4% of Pensionable Salary (future service) has been included to meet ongoing administration expenses plus the cost of the Pension Protection Fund levies.

Allowance for investment out-performance in the Recovery Plan

The Trustees has decided to make an allowance for additional returns in excess of the average discount rates underlying the Technical Provisions of 0.375% per annum from 31 March 2012.

Discontinuance

The actuarial assumptions will be the same as those used to calculate the *technical provisions*, except where indicated below:

Discount rate: The real return net of pension increases before and after retirement will be based on Bank of England gilt yield curve at the valuation date, at a duration which has regard to the mean term of the liabilities. This yield will be adjusted to allow for investment and mortality risks. The assumptions adopted as at 31 March 2012 are a discount rate of 2.85% per annum for non-pensioners, and 3.35% per annum for pensioners.

Expenses: An allowance of £50m has been made to meet the expenses of winding-up.

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Appendix E: Recovery Plan

This Appendix is a copy of the text of the Fund's Recovery Plan dated 2 May 2013.

Merchant Navy Officers Pension Fund – Post-1978 Section (the New Section)

Recovery Plan following the 2012 valuation

This Recovery Plan has been prepared by MNOPF Trustees Limited, the Trustee of the Merchant Navy Officers Pension Fund ("the Fund"), to satisfy the requirements of Section 227 of the Pensions Act 2004, after obtaining the advice of the Scheme Actuary, Paul Burbidge. This Recovery Plan has been prepared on the assumption that all contributions specified herein are paid on the relevant due date for payment.

The actuarial valuation of the New Section of the Fund as at 31 March 2012 revealed a funding shortfall (technical provisions minus value of assets) of £492 million. The value as at 31 March 2012 of the outstanding deficit contributions arising from the 31 March 2009 valuation (as set out in the Recovery Plan dated 26 March 2010), the 31 March 2006 valuation (as set out in the Recovery Plan dated 12 June 2007) and the 31 March 2003 valuation was £340 million, leading to an outstanding funding shortfall as at 31 March 2012 of £152 million.

Steps to be taken to ensure that the Statutory Funding Objective is met

To eliminate this funding shortfall, the Trustee has agreed that contributions in addition to those arising from the 31 March 2003, 31 March 2006 and 31 March 2009 valuations will be paid to the Fund by the participating employers. The additional contributions under this Recovery Plan will commence from 30 September 2013 with the due date for the last such payment being 30 September 2025. These additional contributions will have a present value of £120 million as at 31 March 2012. The Trustee will decide the payment terms for each participating employer, in accordance with the Contribution Collection Policy agreed by the Trustee.

Period in which the Statutory Funding Objective should be met

The funding shortfall is expected to be eliminated by 30 September 2025. This expectation is based on the assumptions underlying the technical provisions with changes as set out below:

- The return on Fund assets during the period from the valuation date to 30 September 2025 is 0.375% per annum in excess of the average discount rate used in the calculation of the technical provisions.

Progress towards meeting the Statutory Funding Objective

It is expected that 50% of the above additional contributions will be paid by 30 September 2021.

This Recovery Plan was agreed by the Trustee following discussion at its meeting on 25 April 2013:

Signed on behalf of the Trustee of the Merchant Navy Officers Pension Fund

Name Peter McEwen

Signed

Position Trustee Chairman

Date 2 May 2013

Appendix F: Schedule of Contributions

This Appendix is a copy of the text of the Fund's Schedule of Contributions dated 2 May 2013.

Merchant Navy Officers Pension Fund – Post-1978 Section (the New Section)

Schedule of Contributions following the 2012 valuation

This schedule of contributions has been prepared by MNOFP Trustees Limited, the Trustee of the Merchant Navy Officers Pension Fund ("the Fund"), to satisfy the requirements of Section 227 of the Pensions Act 2004, after obtaining the advice of the Scheme Actuary, Paul Burbidge. It has been prepared and certified on the assumption that all contributions specified are paid on the relevant due date for payment.

This schedule specifies rates and due dates of Employer and Active Member contributions to the Fund, from the date this schedule is certified by the Scheme Actuary to 30 September 2025. It is subject to review from time to time as required by legislation and by the Fund's Trust Deed and Rules and following actuarial valuations and interim reviews.

1 Regular contributions from 1 April 2013 to 30 September 2025

	Contribution Rate
Employers	15.5% of post 2000 Pensionable Salaries to 30 September 2013 and 20.0% thereafter
Active Members	9.5% of post 2000 Pensionable Salaries to 30 September 2013 and 12.2% thereafter

Active members may make Additional Voluntary Contributions in addition to the above contributions. The above contributions will be paid to the Fund no later than 19 days after the end of the calendar month to which the contributions relate.

Employers who have employed Active Members since 1 April 2012 will also pay additional contributions by 30 September 2013, equal to 7.2% of post 2000 Pensionable Salaries over the period from 1 April 2012 to 30 September 2013.

In addition, the employers will pay deficiency contributions with a total present value of £120 million as at 31 March 2012. This is in addition to the deficit payments arising from the funding valuation as at 31 March 2009 set out in the schedule of contributions dated 26 March 2010, the deficit payments arising from the funding valuation as at 31 March 2006 set out in the schedule of contributions dated 12 June 2007 and the deficit payments arising from the funding valuation as at 31 March 2003. The additional deficiency contributions under this schedule of contributions will commence from 30 September 2013 with the due date of the last such payment being 30 September 2025.

2 Other Employer contributions

In addition to the contributions shown above, the Employers shall pay the following:

- a) Additional contributions as may be required under the Definitive Trust Deed and Rules in specific circumstances, for example to cover augmentations. The amounts of such

contributions to be advised by the Scheme Actuary, and due dates to be agreed by the Trustee.

- b) Such other contributions as may be agreed by the Trustee and the Employers from time to time.

Date of schedule: 2 May 2013

Agreed on behalf of the Trustee

Name Peter McEwen

Signed

Position Trustee Chairman

Date 2 May 2013

Actuary's certification of schedule of contributions

Merchant Navy Officers Pension Fund – Post-1978 Section (the New Section)

1 Adequacy of rates of contributions

I certify that, in my opinion, the rates of contributions shown in this schedule of contributions are such that the statutory funding objective can be expected as at 31 March 2012 to be met by the end of the period for which the Schedule is to be in force.

2 Adherence to statement of funding principles

I hereby certify that, in my opinion, this schedule of contributions is consistent with the statement of funding principles dated 2 May 2013.

The certification of the adequacy of the rates of contributions for the purpose of securing that the statutory funding objective can be expected to be met is not a certification of their adequacy for the purpose of securing the Fund's liabilities by the purchase of annuities, if the Fund were to be wound up.

Signature: _____ Date: 2 May 2013

Name: C P Burbidge Qualification: Fellow of the Institute and Faculty of Actuaries

Towers Watson Limited
21 Tothill Street
London
SW1H 9LL

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Appendix G: Statutory certificate

Actuarial certification for the purposes of regulation 7(4)(a) of the Occupational Pension Funds (Fund Funding) Regulations 2005

Name of Fund: Merchant Navy Officers Pension Fund – Post-1978 Section (the New Section)

Calculation of technical provisions

I certify that, in my opinion, the calculation of the Fund's technical provisions as at 31 March 2012 is made in accordance with regulations under Section 222 of the Pensions Act 2004. The calculation uses a method and assumptions determined by the Trustee of the Fund and set out in the Statement of Funding Principles dated 2 May 2013.



C P Burbidge
Scheme Actuary
Fellow of the Institute and Faculty of Actuaries

2 May 2013

Towers Watson Limited
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Appendix H: Glossary

This glossary describes briefly the terminology of the regime for funding defined benefit pension schemes as introduced by the Pensions Act 2004. Defined terms are in *italics*.

Actuarial report: this is a report prepared by the Scheme Actuary in the years between full *actuarial valuations* that provides an update on the developments affecting the scheme's assets and *technical provisions*.

Actuarial valuation: this is a review carried out by the Scheme Actuary that assesses whether the assets are sufficient to meet the *funding target*. It also determines the contributions required to meet the target both in respect of benefits built up to date for all members and the benefits that are building up to employed members. The calculations are based upon a number of assumptions.

Covenant: this is an employer's legal obligation and its ability to fund the scheme now and in the future.

Discount rate: this is the rate used to place a value at the valuation date on payments projected to be made in the future. The lower the discount rate the higher the resulting "present value".

Dual discount rate: this is an approach that takes into account a notional rebalancing of a scheme's investment policy in response to changes in the scheme membership. For example it could allow for return seeking investments (such as equities) being exchanged for liability matching assets (such as bonds) as members retire. In practice it means that different *discount rates* are used in the period before and after retirement.

Funding target/objective: this is a policy to achieve, by the end of a specified period, the amount of assets considered sufficient to pay benefits built up to date as they fall due over the lifetime of the scheme. It is usually based on a scenario that requires assumptions to be made about the future.

Pension Protection Fund (PPF): established by the Pensions Act 2004, this provides compensation to members of an occupational scheme in the event that the scheme is wound up with insufficient assets and the employer has gone insolvent. The level of PPF compensation provided would not normally be at the full level of the benefits that would otherwise have been due from the scheme.

Recovery plan: this is a document drawn up where an *actuarial valuation* discloses that the assets held are less than the *technical provisions*. It is a statement by the Trustee that sets out the steps to be taken with the aim to ensure there are sufficient assets to cover the *technical provisions* at the end of an agreed period.

Schedule of contributions: this is a document that sets out the contributions payable into a Fund by members and the employers and the dates by which such contributions are to be paid. It includes, but is not limited to, contributions agreed under a *recovery plan*.

Statement of Funding Principles: the Trustee is responsible for preparing and maintaining this document (subject to consultation with the Employers and taking into account the advice of the Actuary). It sets out the Trustee's policy for ensuring that the *statutory funding objective* is met and in particular the method for determining the assumptions for calculating the *technical provisions*. The *Statement of Funding Principles* governing this valuation is dated 2 May 2013.

Statement of Investment Principles: the Trustee is responsible for preparing and maintaining this document. It sets out the policy for investing the Fund's assets.

Statutory funding objective: Section 222 of the Pensions Act 2004 requires any Fund subject to that section "to have sufficient and appropriate assets to cover its *technical provisions*". The Trustee may establish other funding objectives in addition to the *statutory funding objective*.

Statutory priority order: this sets out the order in which the assets of a scheme should be applied in securing the benefits of different members in the event of a wind-up. In broad terms it requires that, after allowing for expenses, a scheme first secures benefits that are in line with the compensation that would be provided by the *Pension Protection Fund* with any remaining assets then being used to secure any other benefits.

Summary funding statement: this is a document that is sent to members following the completion of each *actuarial valuation* or *actuarial report* to provide an update on the financial position of the scheme.

Technical provisions: this is the amount of assets required to make provision for the accrued liabilities of the scheme. The *technical provisions* are calculated using the method and assumptions set out in the *Statement of Funding Principles*.

The Pensions Regulator: the statutory body established with the aim to ensure the security of members' benefits and reduce the claims for compensation from the *Pension Protection Fund*. As part of this role it monitors the funding plans of all occupational defined benefit schemes and has wide ranging powers to ensure these are adequate.

Wind-up: this is a particular method of discharging a scheme's liability to pay benefits. It typically arises where the employer no longer provides financial support to the scheme (for example if it becomes insolvent) and would usually involve using the scheme's assets to buy insurance policies that pay as much of the scheme's benefits as possible in accordance with the *statutory priority order*.

Appendix I: Limitations and Compliance

Third parties

I have written this report for the Trustee, as required under Clause 26.0 of the Trust Deed and Rules dated 25 June 1999. I have prepared it to satisfy both the requirements of the Deed and the statutory requirements of Section 224 of the Pensions Act 2004. It has not been prepared for any other purpose. As such, it should not be used or relied upon by any other person for any other purpose, including, without limitation, by individual members of the Fund for individual investment or other financial decisions, and those persons should take their own professional advice on such investment or financial decisions. Neither I nor Towers Watson Limited accepts any responsibility for any consequences arising from a third party relying on this report.

Except with the prior written consent of Towers Watson Limited, the recipient may not reproduce, distribute or communicate (in whole or in part) this report to any other person other than to meet any statutory requirements.

Data supplied

The Trustee bears the primary responsibility for the accuracy of the information provided, but will, in turn, have relied on others for the maintenance of accurate data. Even so it is the Trustee's responsibility to ensure the adequacy of these arrangements. I have taken reasonable steps to satisfy myself that the data provided is of adequate quality for the purposes of the investigation, including carrying out basic tests to detect obvious inconsistencies. These checks have given me no reason to doubt the correctness of the information supplied. It is not possible, however, for me to confirm that the detailed information provided, including that in respect of individual members and the asset details, is correct.

This report has been based on data available to me as at the effective date of the actuarial valuation and takes no account of developments after that date except where explicitly stated otherwise.

Assumptions

The choice of assumptions, as set out in the Fund's *Statement of Funding Principles* dated 2 May 2013, is the responsibility of the Trustee, in consultation with the Employers, after taking my advice. They are only assumptions; they are not predictions and there is no guarantee that they will be borne out in practice. In fact I would expect the Fund's experience from time to time, to be better or worse than that assumed. The Trustee and the Employers must be aware that there are uncertainties and risks involved in any course of action they choose based on results derived from these assumptions.

Actuarial standards

This report falls within the scope of several Technical Actuarial Standards (TASs) published by the Board for Actuarial Standards, namely:

- Pensions TAS
- TAS R: Reporting Actuarial Information
- TAS D: Data, and
- TAS M: Modelling.

I confirm that this report complies with these TASs. In particular it complies with the requirements for a Scheme Funding report set out in section E.3 of the Pensions TAS.