Willis Towers Watson

Merchant Navy Ratings Pension Fund

Actuarial valuation as at 31 March 2020

16 June 2021

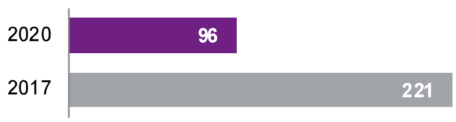
willistowerswatson.com

Summary

The main results of the Fund's actuarial valuation are as follows:

- Technical provisions funding level as at 31 March 2020 has increased to 93% (2017: 84%)

- Deficit of assets relative to technical provisions has decreased to £96 million (2017: £221 million)



- The recovery plan implemented to address the Fund's funding deficit is expected to achieve full funding on the technical provisions assumptions by 31 March 2027, which is 7 years following the valuation date (2017: 7 years)

- The Scheme Actuary's statutory estimate of solvency as at 31 March 2020 has increased to 82% (2017: 73%)

Contents

Throughout this report the following terms are used:

Fund
Merchant Navy Ratings Pension Fund

Trustee
Merchant Navy Ratings Pension Fund Trustees Limited

Employers
Participating Employers, as defined in the Trust Deed & Rules

Trust Deed & Rules
The Fund's Trust Deed and Rules dated 1 August 2007 (as subsequently amended)

Introduction

Scope

This report is the actuarial valuation of the Merchant Navy Ratings Pension Fund as at 31 March 2020 and I have prepared it for the Trustee. As noted in the Limitations section of this report, others may not rely on it.

The actuarial valuation is required under the terms of Clause 25 of the Trust Deed & Rules and Part 3 of the Pensions Act 2004; a copy of this report must be provided to the Employers within seven days of its receipt.

The main purposes of the actuarial valuation are to review the financial position of the Fund relative to its statutory funding objective and to determine the appropriate level of future contributions.

The report explains the financial position of the Fund at 31 March 2020 using several different measures of its liabilities and how it has changed since the previous valuation at 31 March 2017. It also describes the strategy that has been agreed between the Trustee and Employers for financing the Fund in future and provides projections of the funding position at the expected date of the next valuation.

This report and the work involved in the actuarial valuation are within the scope of and comply with the Financial Reporting Council's Technical Actuarial Standards 100: Principles for Technical Actuarial Work and 300: Pensions.

Next steps

The Trustee is required to disclose to members, in a summary funding statement, certain outcomes of this actuarial valuation within a reasonable period. Members may also request a copy of this report.

The financial position of the Fund and the level of Employers contributions to be paid will be reviewed at the next actuarial valuation, which must be carried out at an effective date of no later than 31 March 2023.

In intervening years the Trustee will obtain annual actuarial reports on developments affecting the Fund's assets and technical provisions. The next such report, which will have an effective date of 31 March 2021, must be completed by 31 March 2022.

[redacted]

Simon Eagle
Fellow of the Institute and Faculty of Actuaries
Towers Watson Limited, a Willis Towers Watson Company
16 June 2021

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Limitations

Third parties

This report has been prepared for the Trustee for the purpose indicated. 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, including the Employers who must provide and update certain membership information. 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.

Some of the member data (such as date of birth and salary) required for the running of the Fund, including for paying out the right benefits, is known as 'personal data'. The use of this data is regulated under the Data Protection Act (DPA) and the General Data Protection Regulation (GDPR), which places certain responsibilities on those who exercise control over the data (known as 'data controllers' under the DPA and GDPR). Data controllers would include the Trustee of the Fund and may also include the Scheme Actuary and Willis Towers Watson, so we have provided further details on the way we may use this data on our website at http://www.willistowerswatson.com/personal-data.

Assumptions

The choice of long-term assumptions, as set out in the Fund's Statement of Funding Principles dated 16 June 2021, is the responsibility of the Trustee, 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 should be aware that there are uncertainties and risks involved in any course of action they choose based on results derived from these assumptions.

The funding of the Fund is subject to a number of risks and it is not possible to make an allowance for all such risks in providing our advice. Unless stated, no explicit allowance has been made for any particular risk. In particular, no explicit allowance has been made for climate-related risks.

Funding

Statutory funding objective

The Trustee's primary formal funding objective is the statutory funding objective under the Pensions Act 2004, which is to have sufficient and appropriate assets to cover the Fund's technical provisions.

The technical provisions are calculated by projecting the benefits (which are mostly pension payments) expected to be paid in each year after the valuation date and then discounting the resulting cashflows to obtain a present value. The main benefits taken into account in this actuarial valuation are summarised in the Additional Information section of this report.

The projections allow for benefit payments being made from the Fund over the next 80 or so years. Most of these payments depend on future increases in price inflation statistics subject to specified limits.

The method and assumptions for calculating the technical provisions as at 31 March 2020 have been determined by the Trustee and are documented in the Statement of Funding Principles dated 16 June 2021.

The table below summarises the main assumptions used to calculate the Fund's technical provisions for this and the previous actuarial valuation.

Financial assumptions	**31 March 2020** **% pa**	31 March 2017 % pa
Discount rate		
- Initial margin over gilt yields	**2.2**	1.8
- Progression of the margin over gilt yields	**Reducing in steps as follow:** **1.5 from 31 March 2021** **1.0 from 31 March 2024** **0.8 from 31 March 2027**	Reducing uniformly from 1.8 at 31 March 2020 to 0.5 at 31 March 2027
- Ultimate margin over gilt yields	**0.5 from 31 March 2030**	0.4 from 31 March 2027
RPI inflation	**Market break-even curve**	3.4
CPI inflation	**RPI curve - 1.0% pa until 2030 then - 0.5% pa from 2030 onwards**	2.4
In service revaluation		
- Section 148	**RPI curve + 1.0% pa**	4.4
- LPI7 (RPI max7%)	**RPI curve**	3.4
Deferred pension revaluation (CPI max 5%)	**CPI curve**	2.4
Pension increases		
- Post 97 Pension (RPI max 5%)	**RPI curve with a 5% cap and 0% floor applied each year**	3.4
- Post 88 GMP (CPI max 3%)	**CPI curve with a 3% cap and 0% floor applied each year**	2.4
- Other pension elements	**nil**	nil

Other financial assumptions	**31 March 2020**	31 March 2017
Expense reserve	**£54 million**	£47 million
GMP equalisation reserve	**2% of non-Greenwich benefit liabilities**	1.5% of liabilities

Demographic assumptions	31 March 2020	31 March 2017
Mortality base tables		
- Male normal health pensioners	**S2IMA with 84% multipier**	S2IMA with 89% multiplier
- Female dependants	**S2IFA with 96% multiplier**	S2IFA with 103% multiplier
Future improvements in longevity	**CMI 2019 with long term rate of improvement of 1.6% pa, smothing parameter of 7.0 and 0.0% pa initial addition**	CMI 2013 with long term rate of improvement of 1.6% pa
Loading for the cost of longevity hedging	**Include following loadings to projected benefit cashflows:** **+5% for all members post-2030**	Include following loadings to projected benefit cashflows: -1% up to 2027 +3% for pensioners post-2027 +4% for deferreds post-2027
Allowance for commutation	**25% of pensions, at 10% saving vs funding liability value**	25% of pensions, at 10% saving vs funding liability value

The table below compares the Fund's technical provisions as at the date of the actuarial valuation (31 March 2020) with the market value of the Fund's assets and the corresponding figures from the previous actuarial valuation:

Valuation statement	31 March 2020 £m	31 March 2017 £m
Amount required to provide for the Fund's liabilities in respect of:		
Employee Members	**52**	74
Deferred pensioners	**580**	663
Pensioners and dependants	**647**	570
GMP equalisation reserve	**26**	20
Expense reserve	**54**	47
Greenwich reserve	**70***	-
Technical provisions	**1,429**	1,374
Market value of assets	**1,333**	1,153
Past service (deficit)/surplus (technical provisions less assets)	**(96)**	(221)
Funding level (assets ÷ technical provisions)	**93%**	84%

* made up of a £60m central estimate of benefit liability under settlement and £10m estimated expenses of reaching settlement and completing a rectification

Developments since the previous valuation – "Project Greenwich"

In early 2018, it was identified that there were legal uncertainties relating to the rights of certain members to ill-health enhanced early retirement pensions since 1985. When the previous, 2017 valuation was signed off, at that stage the scope of the uncertainties were highly unknown pending further investigation, so no allowance was made in the valuation results as at 31 March 2017 for any potential additional benefit liability.

Since then, the Trustee has completed very material legal, actuarial and administrative investigative work to identify the uncertainties and their potential quantum, named "Project Greenwich". The most material uncertainties can be summarised as relating to:

- Whether post-1993 leavers are entitled to enhanced ill-health benefits - in practice they have been treated as not being so
- Whether it was valid for "Scale Back" to have been applied to reduce pension levels on ill-health retirement between 1991 and 1993
- Whether it was valid for ill-health benefits in payment since 1989 to be subject to a "Review" of the level in payment, leading to reductions or suspensions of pensions in some instances.

A court case was due to be heard in November 2020, involving representative parties for the Participating Employers and members, in which these issues would have been determined. However, in November 2020 these parties agreed a non-binding Heads of Terms for a settlement under which partial benefit compensation would be due. The parties have since been negotiating the details of the terms of the settlement, and are seeking to reach agreement in time for a court hearing to consider approval of the settlement which has been scheduled for October 2021.

Until the full details of the settlement have been agreed and approved in court, or alternatively there is a court judgment on the matter, legal uncertainty remains as to the benefits due.

In addition, there is material demographic uncertainty with regards to the quantum of the additional benefits due. In particular, there is no data available on which post-1993 leavers left due to ill health. MNRPF data from 1988 to 1993 (when ill-health benefits were being granted) shows that 23% of leavers qualified for ill-health benefits, but it is not clear what rate would apply from 1993 – the size of the additional benefit liabilities is materially sensitive to that rate.

In our paper of 8 December 2020, we set out an estimate of the additional benefit liability arising from the Greenwich Heads of Terms of £57m. We noted that this estimate is subject to changes in the legal agreement, and demographic and other uncertainties. As we noted in that paper, while we consider this to be a prudently realistic estimate of the liability, there are still significant uncertainties, in particular from a member data perspective, which mean it could be substantially higher or lower.

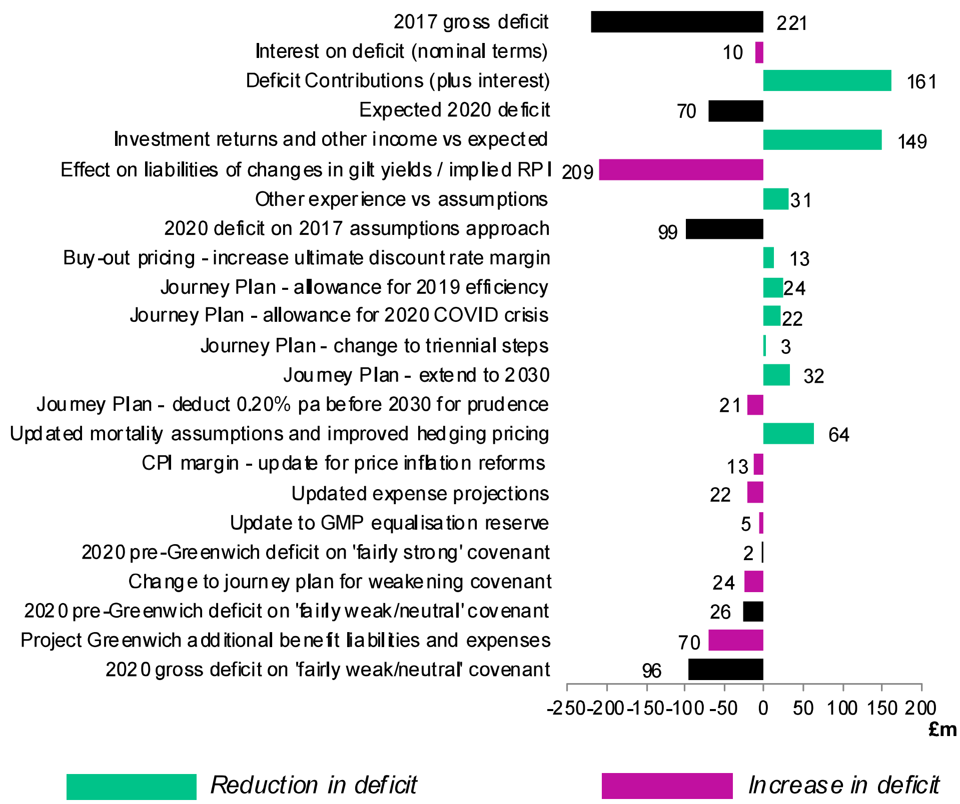
Based on this, and my advice on the valuation, the Trustee has decided to use the following approach to making an allowance for Greenwich in the valuation calculations:

- Set a realistic reserve for the Greenwich settlement liability. For this purpose a rounded value of £60m has been used, due to the uncertainties noted above.
- To this is added an assumed £10m for legal settlement and administrative implementation costs, resulting in a total liability reserve of £70m.

The settlement is also expected to require a certain approach to scheme funding, and the valuation result set out in this report would meet those expected requirements.

Developments since the previous valuation – change in funding level

The funding level has increased to 93% from 84% at the previous valuation. The main factors contributing to this increase are shown below.



Contribution requirements

Recovery plan

As there were insufficient assets to cover the Fund's technical provisions at the valuation date, the Trustee must set a recovery plan. This specifies how, and by when, the statutory funding objective is expected to be met.

The Trustee has set a recovery plan such that the Employers will continue to pay the outstanding contributions required to meet the 2014 and 2017 deficits, which are expected to be sufficient to remove the 2020 deficit.

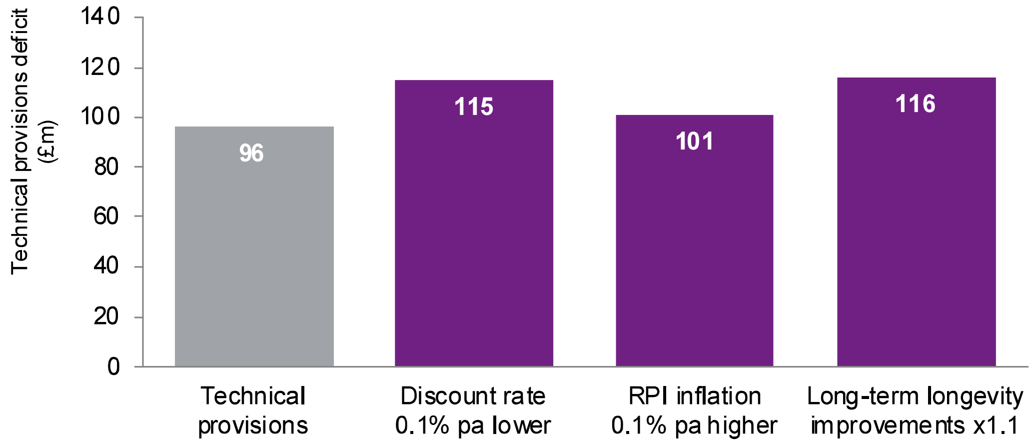
If the assumptions documented in the Statement of Funding Principles are borne out in practice, and investment returns over the period are in line with the discount rates assumed for the purpose of calculating the technical provisions, then based on expected contribution receipts the deficit will be removed by 31 March 2027.

In addition, the Employers will pay 2% of MNRPP Pensionable Salaries each month for those Employee Members who continue to be entitled to revaluation of benefits in line with Section 148 orders, as required under Rule 5 of the Trust Deed and Rules.

Projections and sensitivities

Based on the assumptions underlying the calculation of the Fund's technical provisions as at 31 March 2020 and allowing for contributions to be paid to the Fund as described above, the funding level is expected to increase to 100% by the end of the recovery period.

The chart below illustrates the sensitivity of the technical provisions liability value as at 31 March 2020 to variations of individual assumptions. (If more than one of these assumptions is varied, the effect may be greater than the sum of the changes from varying individual assumptions.)



Solvency

Discontinuance

If the Fund was wound up, the Employers would ultimately be required to pay to the Fund any deficit between the Scheme Actuary's estimate of the full cost of securing Fund benefits with an insurance company (including expenses) and the value of the Fund's assets – the "employer debts" (which may be either statutory debts or contractual scheme debts which the Trustee can levy under the trust deed and rules). The amount of any employer debts that would actually be received would depend on the ability of the Employers to pay what could be a substantial sum of money. The Trustee would then normally try to buy insurance policies to secure future benefit payments. However, the Trustee may 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 a lack of market capacity.

Hypothetically, if the Fund's discontinuance is a result of the insolvency of the last employer, the employer's debt would be determined as above and the Fund would also usually be assessed for possible entry to the Pension Protection Fund ("PPF").

If the assessment concluded that the assets (including any funds recovered from the Employers) were not sufficient to secure benefits equal to the PPF compensation then the Fund would usually be admitted to and members compensated by the PPF. Otherwise the Fund would be required to secure a higher level of benefits with an insurance company.

Statutory estimate of solvency

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 accrued benefits that could have been secured by buying insurance policies with the assets held by the Fund at the valuation date. For this purpose I have assumed that no further payments are received from the Employers.

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 Willis Towers Watson at around the valuation date. I have assumed the cost of implementing the winding-up to be in line with the cost set by the PPF for Section 179 valuations, leading to assumed winding-up costs of £34 million.

I have included an allowance for the Greenwich uncertainty of £60m, representing a central estimate of benefit liability under settlement, which is mainly arrears payments. This is a hypothetical estimate, because in practice insurance companies would be likely to decline to quote due to the current Greenwich ill-health benefit uncertainties.

The table below summarises how the main assumptions used to estimate the Fund's solvency position at this and the previous actuarial valuation differ from the assumptions used to calculate the technical provisions liabilities.

Financial assumptions	**31 March 2020** **% pa**	31 March 2017 % pa
Pensioner discount rate	**Gilts + 0.35% pa**	Gilts + 0.3% pa
Non-pensioner discount rate	**Gilts - 0.15% pa**	Gilts - 0.35% pa
CPI inflation	**0.7% pa below RPI untilo 2030, 0.4% pa below RPI afterwards**	2.7

Demographic assumptions	31 March 2020	31 March 2017
Mortality base tables	**S2IMA/S2IFA with best fit multipliers**	S2IMA/S2IFA with best fit multipliers
Future improvements in longevity	**CMI 2018 with a long term rate of 1.5% and a smoothing parameter of 7.5**	CMI 2014 with a long term rate of 1.5%
Allowance for commutation	**0%**	0%
Greenwich reserve	**£60m**	£0m

My estimate of the solvency position of the Fund as at 31 March 2020 is that the assets of the Fund would have met 82% of the cost of buying insurance policies to secure the benefits at that date, based on the assumptions described above. Further details are set out in the table below alongside the corresponding details as at the previous valuation date:

Valuation statement	31 March 2020 £m	31 March 2017 £m
Total estimated cost	**1,616**	1,573
Market value of assets	**1,333**	1,153
Solvency (deficit)/surplus (total estimated cost less assets)	**(283)**	(420)
Solvency level (assets ÷ total estimated cost)	**82%**	73%

The change in the solvency level from 73% to 82% is due mainly to the investment performance of the Fund's assets being better than assumed and the estimated decrease in insurance company prices, offset by the Greenwich allowance.

The solvency estimate should not be relied upon 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 obtaining specific quotations for buying the insurance policies required to secure the benefits.

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 – benefits relating to certain pension annuities secured by the Fund before 6 April 1997 (of which I understand there are none for the Fund);
- category 2 – the cost to the Fund of securing the compensation that would otherwise be payable by the PPF if the Employers became insolvent;
- category 3 – benefits in respect of defined benefit AVCs not dealt with above;
- category 4 – all other pensions and benefits due under the Fund, including pension increases (where these exceed those under the PPF).

As the Fund assets covered the Section 179 liabilities as at 31 March 2020 but were less than the estimated cost of securing benefits with an insurer, the Fund would probably have qualified for entry to the PPF had there been no solvent Employers at 31 March 2020, in which case members would have received PPF compensation in place of their beneifts.

Relationship between the cost of securing benefits and the technical provisions

My estimate of the cost of securing benefits with an insurance company of £1,616 million is £187 million higher than the Fund's technical provisions of £1,429 million.

The technical provisions are intended to be a prudent assessment of the assets required under the Fund's investment strategy to meet future benefit payments as and when they fall due but with reliance placed on the Employers being able to support the Fund in future if the assumptions are not borne out in practice. Underlying the technical provisions basis is an assumption that the Fund will buy out in 2030, once the vast majority of members have retired. By contrast the estimated cost of securing benefits with an insurance company is based on the price that an insurer might be likely to have charged hypothetically on 31 March 2020 to take on the risks associated with operating the Fund without having recourse to future contributions from the Employers.

If the statutory funding objective had been exactly met on 31 March 2020 (ie there had been no funding surplus or deficit), I estimate that the solvency level of the Fund would have been 88%. This compares with 87% at the 31 March 2017 actuarial valuation.

Projections and sensitivities

Based on the assumptions underlying the calculation of the Fund's technical provision as at 31 March 2020 and allowing for contributions to be paid to the Fund summarised in the Funding section of this report, the solvency level is projected to broadly uniformly increase over the recovery period, and will increase by a slightly greater extent than the technical provisions funding level.

The table below illustrates the sensitivity of the solvency position as at 31 March 2020 to variations of individual key assumptions. (If more than one of these assumptions is varied, the effect may be greater than the sum of the changes from varying individual assumptions.)

Additional Information

Risks

The table below summarises the main 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	At each valuation the Trustee takes advice from an independent covenant adviser on the ability of the Employers as a whole 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. This advice is taken into account when determining the level of technical provisions and in considering the appropriateness of any recovery plan to remove a deficit relative to the technical provisions. Under the deficit collection regime, the Trustee requires covenant assessments and credit support arrangements to be in place for individual employers to allow them to spread their contributions over more than two instalments. Amounts which are demonstrably unaffordable within the recovery period will be respread to other employers.
Investment returns on the existing assets could be insufficient to meet the Trustee's funding objectives	The Trustee takes advice from the Scheme Actuary on possible assumptions for future investment returns. For the calculation of the Fund's technical provisions, the Trustee has adopted discount rates that are lower than the expected returns on the Fund assets. The Trustee is able to require further contributions from the Employers at subsequent valuations if future returns prove insufficient.
Investment returns on future income could be lower than the returns available at the valuation date	The Trustee takes this risk into account when determining the Fund's technical provisions, by incorporating a level of prudence into the investment return assumptions. The Fund currently hedges its exposure to changes in interest rates.
Price inflation could be different from that assumed which could result in higher liabilities	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. The Fund currently hedges its exposure to inflation risk.
Falls in asset values might not be matched by similar falls in the value of the Fund's liabilities	The Trustee considers this risk when determining the Fund's investment strategy. The Fund currently hedges most of its exposure to changes in interest rates. To the extent that such falls in asset values result in deficits at future valuations, the Employers would be required to agree a recovery plan with the Trustee to restore full funding over a period of time.
Increases in buy-out pricing means Journey Plan target is insufficient to buy out liabilities	The Trustee takes advice from the Scheme Actuary on expected buy-out pricing and reflects a prudent allowance for this in the technical provisions and Journey Plan. The Trustee will review the assumptions periodically and adjust the funding targets if required.
Fund members live longer than assumed	For the calculation of the technical provisions, 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. If life expectancy increases more than assumed, the Trustee can increase contributions due from the Employers to meet the additional pension liabilities. The Trustee could also consider hedging the longevity risk if the market terms are considered attractive.
Options exercised by members could lead to increases in the Fund's liabilities	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. The terms are kept under regular review, generally following each actuarial valuation.
Legislative changes could lead to increases in the Fund's liabilities	The Trustee takes legal and actuarial advice on changes in legislation.

Risk	Approach taken to risk
Project Greenwich	The Trustee is completing an exercise to resolve the benefit liability, and has included a reserve for an estimated liability in the Technical Provisions. The Trustee is able to require further contributions from the Employers at subsequent valuations if the actual liability is higher than the reserve.

Economic risk | Demographic risk | Legal risk

Benefits summary

The Fund is a registered pension scheme under the Finance Act 2004 and was contracted-out of the State Second Pension until 31 May 2001. The benefits payable to the members of the Fund as at 31 March 2020 are described in the Trustee Deed and Rules dated 1 August 2007 as subsequently amended

The main provisions of the Fund as set out in its Trust Deed and Rules are summarised as follows:

Normal Retirement Age (NRA)	Age 62 for most men and women.
Pensionable salary:	
- for ARPS	The cash emoluments received by a member in a Fund Year less 1½ times the Lower Earnings Limit applicable to that Fund Year.
- for 98RPS	The cash emoluments received by a member in a Fund Year less the Lower Earnings Limit applicable to that Fund Year.
Average Revalued Pensionable Salary (ARPS):	Calculated by adding together each Fund Year's Pensionable Salary on or before 31 May 2001, with each year's salary revalued: - with Section 148 Orders as an Active Member up to 31 May 2001; and then - as an Employee Member, with 'LPI7 Revaluation' or Section 148 Orders depending on the option chosen by the member in 2001. The total is then divided by the number of years of service before 31 May 2001.
1998 Revalued Pensionable Salary (98RPS):	Calculated as for ARPS, but over the period 1 February 1998 to 31 May 2001 only.
LPI7 revaluation:	Revaluation for the period as an Employee Member after 31 May 2001 in line with retail price inflation subject to a maximum of 7% per annum over the whole period.
Service:	Service as a contributing member of the Fund up until 31 May 2001.
Pre-1978 Pension Benefits:	Additional pension benefits granted to Members in respect of service prior to 6 April 1978, subject to certain qualifying conditions being satisfied.
Retirement at NPA:	A pension equal to the total of: - one-sixtieth of ARPS for each year of service prior to 1 February 1998; - one-eightieth of 98RPS for each year of service between 1 February 1998 and 31 May 2001; and - the member's Pre-1978 Pension Benefit.
Retirement before NPA:	An immediate pension calculated as for retirement at NPA but reduced to reflect early payment, if the Trustee gives its consent.
Lump sum at retirement:	On retirement part of the pension may be exchanged for a lump sum ('commutation').
Death after retirement:	A spouse's pension of 50% of the pension which would have been in payment at the date of death if no pension had been commuted for a lump sum at retirement, plus a lump sum if death occurs within 5 years of retirement.
Death before retirement:	A dependant's pension equal to 50% of the member's pension with increases to the date of death.

Leaving service:	A deferred pension or transfer value. The pension is increased between retirement and NPA in line with statutory requirements, with the discretionary practice described below.
Pension increases:	The pension is increased in payment as follows: - no guaranteed increases to non-GMP benefits accrued prior to 1 April 1997. - guaranteed increases in line with retail price inflation up to a maximum of 5% each year to benefits accrued after 31 March 1997. GMPs accrued from 6 April 1988 receive statutory increases.

Discretionary benefits

There is a long-standing practice for increases in deferment above statutory requirements for members who left service from 1986 to 1990, and this is allowed for within the technical provisions.

Other than this, the Fund has no recent practice of making discretionary increases to benefits and the calculation of the technical provisions and statutory estimate of solvency does not allow for any advance provision for the granting of such discretionary benefit increases.

Changes to the benefits

Since the valuation as at 31 March 2017 no changes have been made to the Fund's benefits.

Uncertainty about the benefits

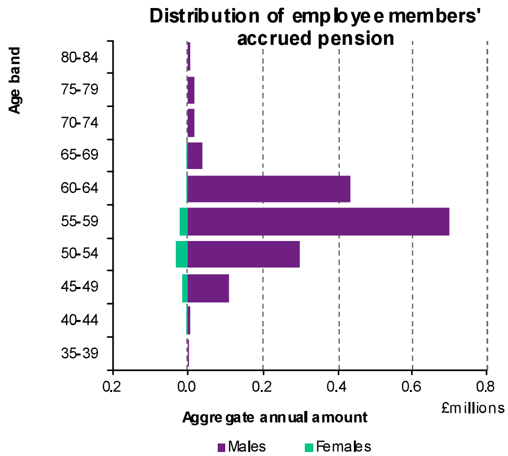
An allowance of 2% of non-Greenwich benefit liabilities has been made in the calculation of the technical provisions and statutory estimate of solvency as an estimate for the possible changes to the benefits that may be required to ensure that the Fund provisions in respect of Guaranteed Minimum Pensions do not unlawfully discriminate between male and female members.

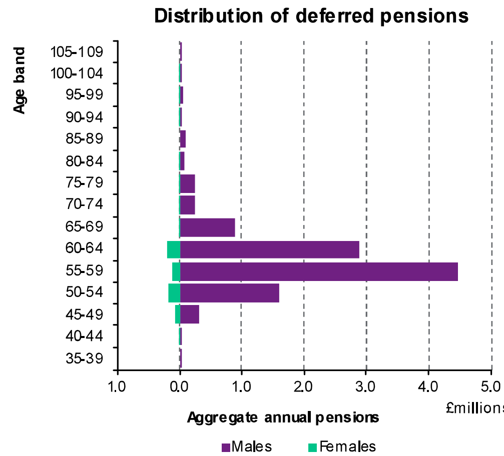
As described in the funding section, there is also a material legal uncertainty relating to ill-health benefits, which is being investigated under Project Greenwich.

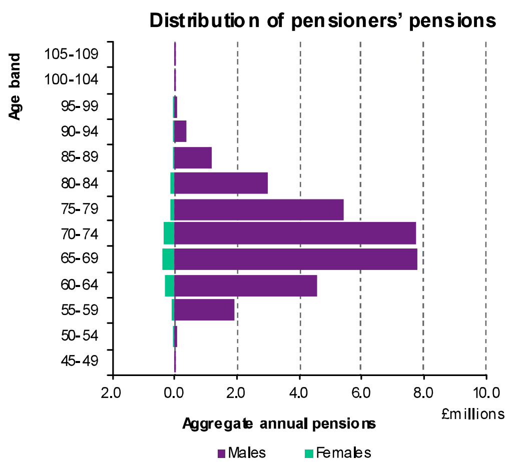
Membership data

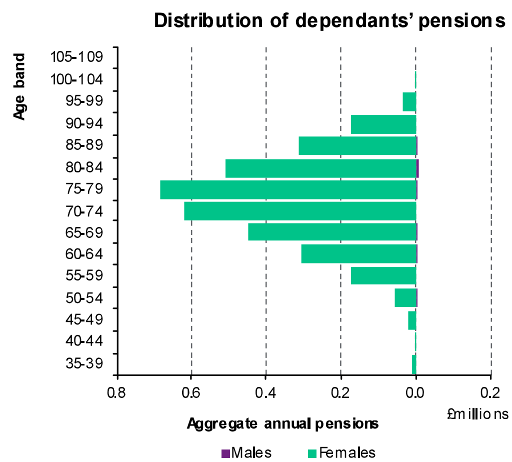
Population pyramids

A graphical summary of the Trustee's membership information supplied by the Fund's administrator is shown below.









Notes on data charts:

- Deferred pension amounts include revaluation of non-GMP to the valuation date.
- Pension amounts in payment include the increases granted to post '97 pensions and post '88 GMPs in April 2020.
- Pension amounts make no allowance for the effects of GMP equalisation or Project Greenwich

A summary of the data provided for this and the previous valuation is presented below.

Number of members

Number	31 March 2020			31 March 2017		
	Males	Females	Total	Males	Females	Total
Employee members	328	38	366	491	49	540
Deferred pensioners	9,393	644	10,037	14,486	849	15,335
Pensioners	7,242	546	7,788	7,118	562	7,680
Dependants	9	1,511	1,520	22	2,114	2,136
Total	16,972	2,739	19,711	22,117	3,574	25,691

Annual pension

£k	31 March 2020			31 March 2017		
	Males	Females	Total	Males	Females	Total
Employee members	1,613.1	76.0	1,689.1	2,494.8	112.5	2,607.3
Deferred pensions	18,005.4	764.3	18,769.7	25,884.0	1,143.7	27,027.7
Pensioners' pensions	32,015.4	1,550.7	33,566.1	29,069.8	1,336.7	30,406.5
Dependants' pensions	15.4	3,365.4	3,380.8	21.6	3,704.9	3,726.5

Average age

Years	31 March 2020			31 March 2017		
	Males	Females	All	Males	Females	All
Employee members	57.2	52.0	56.9	55.6	52.3	55.5
Deferred pensioners	56.8	53.6	56.6	56.3	54.4	56.2
Pensioners	71.1	70.2	71.1	70.4	69.9	70.4
Dependants	75.0	74.3	74.3	71.6	73.4	73.4

Notes on data tables:

- For members with benefits from more than one period of service, "Number" reflects the number of separate service period records.
- For Employee Members who also have deferred benefits from earlier periods of service, those deferred records have been included within "Deferred Pensioners"
- Deferred pension amounts include revaluation to the valuation date.
- Pension amounts in payment include the increases granted to post '97 pensions and post '88 GMPs in the April immediately following the valuation date.
- Pension amounts make no allowance for the effects of GMP equalisation or Project Greenwich
- Average ages are weighted by amount.
- The overall membership of the fund has fallen significantly since 2017. This is largely due to exercises to pay refunds of contributions to deferred members with small pensions, as well as data cleansing and exercises to pay trivial commutation lump sums to pensioners with small pensions.

Comments on data quality

The Fund's administrator, Mercer, have carried out various exercises since 2017 to improve the quality of the benefit data. The main remaining issue is that Mercer do not hold contingent spouse's pension amounts for a large number of members so we have valued estimated amounts based on other elements of the data. In addition, the Fund is currently going through a GMP rectification exercise, which is expected to lead to changes in GMP amounts for some members, although the effect is not expected to be material.

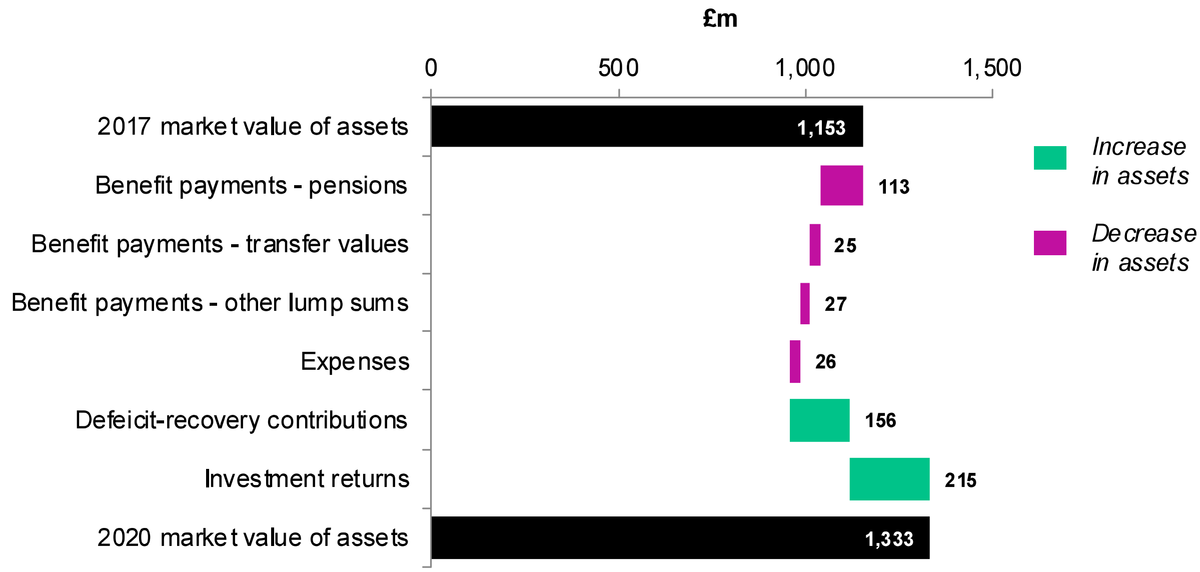
Further, as described above, the Fund is going through an exercise to resolve the Project Greenwich benefit uncertainty, including collection of the remaining data needed to determine the additional benefit liabilities.

Asset information

Movements in the market value of assets

The audited accounts supplied as at 31 March 2020 show that the market value of the Fund's assets was £1,333 million.

The change in the Fund's assets from £1,153 million as at 31 March 2017 to £1,333 million as at 31 March 2020 is detailed in the Trustee's Report and Financial Statements over that period. The chart below summarises a broad reconciliation of the change:



Investment strategy

The assets, (excluding AVCs) were invested as summarised below as at 31 March 2020:

	Market value as at 31 March 2020	
	£m	%
Equities	120	9%
Alternative credit	93	7%
Hedge funds	147	11%
Private markets	173	13%
Investment grade credit	67	5%
Liability hedging and liquidity	626	47%
Diversifying strategies	107	8%
Total	1,333	100%

Statutory Certificate

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

Name of scheme: **Merchant Navy Ratings Pension Fund**

Calculation of technical provisions

I certify that, in my opinion, the calculation of the Fund's technical provisions as at 31 March 2020 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 16 June 2021.

[redacted]

Simon Eagle
Fellow of the Institute and Faculty of Actuaries
Towers Watson Limited, a Willis Towers Watson Company
16 June 2021

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Glossary

This glossary describes briefly the terminology of the regime for funding defined benefit pension schemes as introduced by the Pensions Act 2004.

Actuarial report: A report prepared by the Scheme Actuary in years when an actuarial valuation is not carried out that provides an update on developments affecting the Fund's assets and technical provisions over the year.

Actuarial valuation: A report prepared by the Scheme Actuary that includes the results of the calculation of the technical provisions based on the assumptions specified in the Statement of Funding Principles and assesses whether the assets are sufficient to meet the statutory funding target.

Contingent asset: An arrangement separate from the assets already held by the trustees under trust (or agreed and documented in the schedule of contributions) that provides for the trustees to receive certain assets should certain pre-defined events take place.

Covenant: This represents the employers' combined legal obligation and ability to provide the financial support to a scheme that may be required now and in the future. The trustees' assessment of the sponsors' covenant will inform both investment and funding decisions.

Demographic assumptions: Assumptions relating to social statistics for Fund members, which can affect the form, level or timing of benefits members or their dependants receive. This can include levels of mortality experienced by the Fund and the proportion of members electing to exercise benefit options.

Discount rates: Assumptions used to place a capital value at the valuation date on projected future benefit cash flows from the Fund. The lower the discount rate the higher the resulting capital value.

Financial assumptions: Assumptions relating to future economic factors which will affect the funding position of the Fund, such as inflation and investment returns.

Funding target/objective: An objective to have a particular level of assets relative to the accrued liabilities of the Fund. See also statutory funding objective.

Pension Protection Fund (PPF): Provides compensation to members of an eligible occupational scheme in the event that it is wound up with insufficient assets and the employer is insolvent. The level of PPF compensation provided would not usually be at the full level of the benefits that would otherwise have been due.

Prudence: Regulations require that assumptions are chosen prudently when assessing the level of technical provisions, although they do not define this term. I have interpreted prudence to be the level of conservatism in the assumptions. Where this is interpreted quantitatively, assumptions said to be prudent would result in higher technical provisions than a "best estimate" assumption (where a "best estimate" assumption is one where there is a 50% chance that the actual outcome will be higher or lower than assumed).

The Pensions Regulator: The regulatory supervisor for occupational pension schemes with statutory objectives to protect members' benefits and the Pension Protection Fund, and statutory powers to take interventionist action.

Recovery plan: A document required where an actuarial valuation discloses that the statutory funding objective is not met (ie the assets held are less than the technical provisions). It is a formal agreement between the trustees and the employer that sets out the steps to be taken to achieve the statutory funding objective by the end of an agreed period (the "recovery period").

Schedule of contributions: A document that sets out in detail the agreed contributions payable to a scheme 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.

Scheme Actuary: The individual actuary appointed (under the Pensions Act 1995) by the trustees to perform certain statutory duties for the Fund.

Scheme-Specific Funding Regime: A term used to refer to the legislative and regulatory rules that stem from the Pension Act 2004 and which govern the funding of occupational defined benefit pension schemes in the UK.

Statement of Funding Principles (SFP): The SFP sets out the trustees' policy for ensuring that the statutory funding objective and any other funding objectives are met and, in particular, the assumptions for calculating the technical provisions at the effective date of the actuarial valuation. The trustees are responsible for preparing and maintaining this document, taking into account the advice of the Scheme Actuary and in many cases seeking the agreement of the employer.

Statement of Investment Principles (SIP): The SIP sets out the trustees' policy for investing the Fund's assets. The trustees are responsible for preparing and maintaining this document, taking into account written investment advice from the appointed investment advisor and consulting the employer before any changes are made.

Statutory estimate of solvency: An estimate of the cost of discharging a scheme's liability to pay benefits through the purchase of insurance policies in respect of each member's full benefit entitlement under the Fund (unless the actuary considers that it is not practicable to make an estimate on this basis, in which case the estimate of solvency can be prepared on a basis that the actuary considers appropriate).

Statutory funding objective: To have sufficient and appropriate assets to cover the Fund's technical provisions.

Statutory priority order: The order in which the assets of a scheme must be applied in securing the benefits of different members in the event of it being wound up. The order is consistent with the Pension Protection Fund (PPF) because benefits covered by the PPF are the highest priority class of defined benefit liabilities.

Summary funding statement: An update sent to members following the completion of each actuarial valuation or actuarial report informing them of the assessed financial position of the Fund.

Technical provisions: 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.

Winding-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 it (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.