

Lane
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Peacock

Actuaries & Consultants

Halcrow Pension Scheme

**Report on the Actuarial Valuation
as at 31st December 2002**



Actuaries & Consultants

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23rd October 2003

The Trustees
The Halcrow Pension Scheme

Dear Sirs

Halcrow Pension Scheme
Actuarial Valuation as at 31st December 2002

In accordance with Rule 13.2, we have carried out an actuarial valuation of the Halcrow Pension Scheme ("the Scheme") as at 31st December 2002 and now have pleasure in presenting our report. This includes the statutory Minimum Funding Requirement valuation.

We carried out the previous valuation as at 5th April 2001 and our formal report was dated 2nd April 2002.

The main purpose of the valuation is to advise on the level of future contributions to be paid. We also consider the position if the Scheme were to discontinue.

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Executive summary

The main conclusions from our valuation are:

- The assets of the Scheme were 82% of the statutory Minimum Funding Requirement (MFR). The Government has announced its intention of replacing MFR. The process is likely to be lengthy and, therefore, MFR will continue to be a consideration for the foreseeable future.
- The assets were sufficient to cover approximately 40% of the cost of buying out benefits through an insurance company.
- It is proposed that the aggregate contributions to the Scheme from 1st January 2004 will initially be at the rate of 15.3% of pensionable salaries, plus £6m a year.
- In considering whether, in accordance with Rule 3.4(1), such contributions are adequate to "... provide the benefits payable and prospectively payable under the Scheme...", I have considered: the financial position of the Scheme; the benefits expected to accrue in future; and my understanding of the likely ability of the employers to make increased contributions to the Scheme.
- Taking all of these factors into account, I am satisfied that the total contributions proposed are within the reasonable range for the required contributions to the Scheme, although towards the optimistic end of that range.
- The position should be kept under review and, in any event, the next formal valuation is due as at 31st December 2005.

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At the back of this report, there is an explanation of the two most commonly used funding methods as well as a description of the Minimum Funding Requirement introduced by the Pensions Act 1995. There is also a flowchart showing the timetable for completing the various statutory documents required.

This report has been prepared in accordance with the guidance note “GN9 Retirement Benefit Schemes - Actuarial Reports”, published by the Faculty and Institute of Actuaries, as current at the date of signature of this report.

This report is provided to you in your capacity as Trustees of the Halcrow Pension Scheme. It is for your sole use and is confidential to you. You should not provide this report, in whole or in part, to any third party unless you have obtained our prior written consent or you are legally obliged to do so by Statute or Regulation (eg in relation to the disclosure of information to Scheme members). We accept no liability to any third party to whom this report has been provided (with or without our consent) unless the third party has asked us in writing to confirm our liability to them and we have done so.

1. Constitution of the Scheme

The Scheme was established on 21st February 1989 and is formally governed by a Definitive Trust Deed and Rules dated 29th June 1999, as subsequently amended.

The Scheme is exempt approved by the Inland Revenue under Chapter I Part XIV of the Income and Corporation Taxes Act 1988. Members are contracted-out of the State Second Pension (previously known as the State Earnings Related Pension Scheme or SERPS) on a defined benefit test basis.

The Scheme has been closed to new entrants since 1st February 2001.

2. Benefits and contributions

The benefits provided by the Scheme are summarised in Appendix 1. Since the previous valuation, one significant change has been made. Members have been given the option to have a higher Normal Retirement Age combined with a higher accrual rate and around half the current in service membership chose this option.

Members are currently required to contribute to the Scheme at the rate of 6% of their pensionable salary (5% up to age 25).

In accordance with our advice, the employers have been paying contributions to the Scheme since the previous valuation at the following rates:

	% of pensionable salaries
6th April 2001 to 5th April 2002	15.8
6th April 2002 to 5th April 2003	17.0

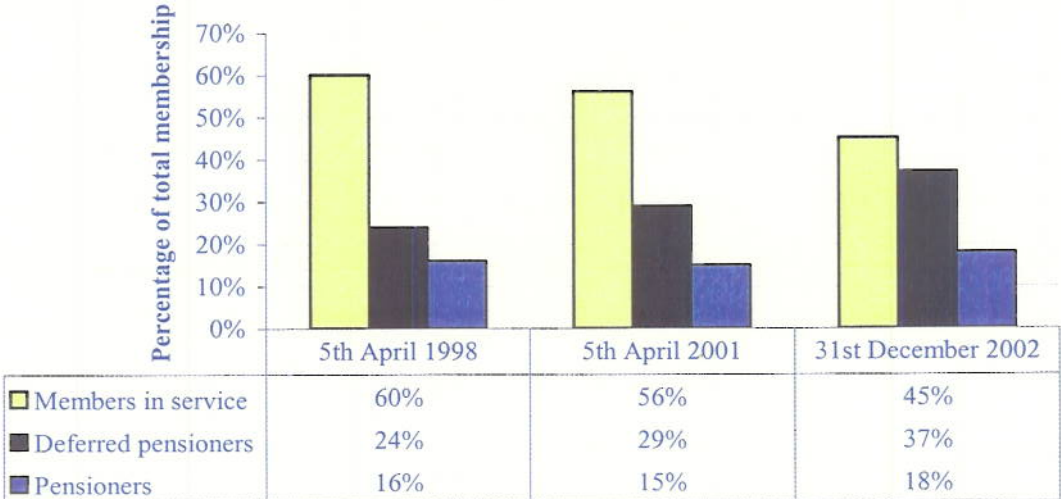
The employers' contribution rate increased to 18.5% from 5th April 2003.

3. Membership

The membership data used for the valuation was obtained from Andrew Mutter, Pensions Manager at Halcrow, and is summarised in Appendix 2. We have relied on this data and we have no reason to doubt the overall accuracy of the data for the purposes of the valuation.

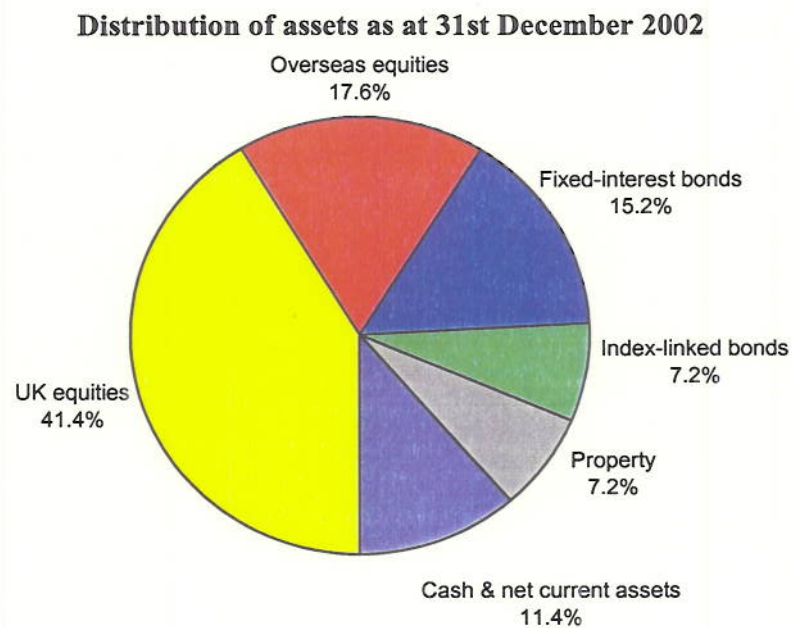
The graph below shows the profile of the membership at each valuation date since 5th April 1998. It shows that the number of in service members as a proportion of the total membership has reduced over the period shown, particularly since the previous valuation, as would be expected in a closed scheme.

Membership profiles since 5th April 1998



4. Assets

We have received copies of the audited accounts for the year to 5th April 2002 and for the period to 31st December 2002 and a consolidated revenue account for the inter-valuation period is set out in Appendix 3. The market value of the Scheme's assets stood at £163.1m at 31st December 2002 (excluding the accumulated value of members' voluntary contributions). A breakdown between the main asset sectors is given below.



Further details are set out in Appendix 4.

Over the period since the previous valuation, the average rate of return earned on the assets was approximately -7.3% pa by reference to market values. The Scheme's long term investment strategy is to invest according to the following benchmark:

	%
UK equities	48
Overseas equities	20
Fixed-interest bonds	17
Index-linked bonds	5
Property	5
Cash	5

We are satisfied that the investment strategy has been appropriate, bearing in mind the nature and term of the Scheme's liabilities and the attitude to risk of the Trustees and Halcrow Group Limited (the "Principal Employer"). The Trustees are undertaking a review of the investment strategy as part of this valuation.

5. Funding objectives, method and assumptions

As for the previous valuation, the funding objective is to have sufficient assets to cover the total liabilities for completed service, including provision for future salary and pension increases in line with the assumptions. We have used the "Projected Unit Method" under which the future service contribution rate is calculated so as to be sufficient to meet the value of benefits arising from the completion of a further year's pensionable service. A description of the method can be found at the back of this report. The rate so determined is sensitive to the age, sex and salary profile of the membership and will tend to rise if the average age rises. As the Scheme is closed to new members, we would expect the average age, and hence the contribution rate, to rise gradually from valuation to valuation.

For the lump sum death in service benefits, we have included the value of claims, on the valuation assumptions, in the year following the valuation.

Appendix 5 sets out the details of the actuarial assumptions used in valuing the liabilities and explains where these are different from those adopted for the previous valuation. For this valuation we have again taken assets at market value.

The main assumptions are summarised below:

Rate of price inflation	2¼% pa
Rate of investment return	
- before retirement	6½% pa
- after retirement	5½% pa
Rate of increase in salary	4¼% pa
Rate of pension increases	
- fixed	5% pa
- 5% LPI	2¼% pa

No allowance is made for members withdrawing from service with leaver benefits. We have made some allowance for early retirement at age 60 for members whose Normal Retirement Age is higher than 60. Details are set out in Section 4 of Appendix 5.

6. Results - ongoing basis

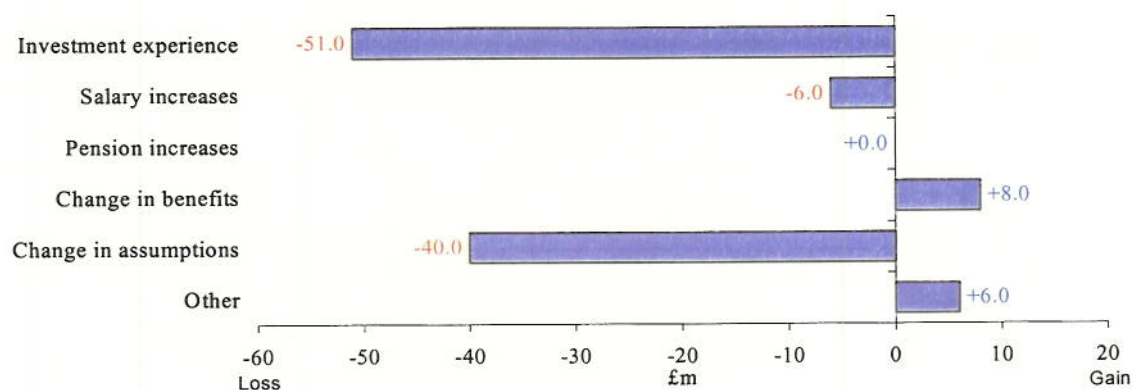
6.1. Past service

The first stage was to compare the value placed on the liabilities for completed service, based on projected salary in accordance with the assumptions, with the value placed on the assets. The results are shown below.

	£m
Value placed on accrued liabilities:	
Pensioners	96.8
Deferred pensioners	50.8
Members in service	<u>130.1</u>
Total	277.7
Assets	<u>163.1</u>
Past service deficit	<u>114.6</u>

The past service deficit shown at the previous valuation was £35m. After allowing for interest, this was expected to reduce to approximately £32m, with the employer contributions being more than those required to fund the future accrual of benefits. The position has therefore worsened by some £83m more than expected, and the main reasons for this are shown below.

Tracing valuation experience from 5th April 2001 to 31st December 2002



As can be seen from the table above, the significant falls in equity markets since the last valuation have had a marked impact on the financial position of the Scheme.

6.2. Future service contribution rate

The long term future service contribution rate (before adjustment for any past service surplus or deficit) is set out below:

	% of pensionable salaries
Retirement benefits	16.9
Spouses' pensions on death in service	1.0
Lump sum death-in-service benefits	1.2
Allowance for expenses	<u>1.0</u>
	20.1
Members' contributions	<u>(6.0)</u>
Employer's future service contribution rate	<u><u>14.1</u></u>

The above rate compares with a figure of 10.9% revealed at the last valuation. The increase is mainly due to the change in the assumptions. As noted in Section 5. above, we would expect the rate gradually to increase from valuation to valuation (all other things being equal) as the average age of the membership increases.

The above rate includes the premiums payable in respect of the lump sum death-in-service benefits which are partly insured under a separate group life arrangement. These premiums, together with expenses incurred in administering the Scheme, are payable from the Scheme's funds.

Appropriate allowance for the cost of lump sum death benefits for the Group Life members is included in the above figures.

6.3. Sensitivity

The results are sensitive to the assumptions chosen and, in particular, to the assumed rates of investment return. By way of illustration, the effect of a 1% pa change in the assumed rate of pre-retirement investment return would be as follows:

Rate of investment return pre-retirement pa	Deficit £m	Employer's future service rate (%)
5.5%	135.3	16.9
6.5%	114.6	14.1
7.5%	98.3	11.8

7. Discontinuance funding measures

This section considers the position if the employer were to cease sponsoring the Scheme. In this situation, the pensionable service of members in service would cease and they would become entitled to deferred benefits. A brief summary of the winding-up provisions of the Rules is contained in Appendix 1.

7.1. Minimum Funding Requirement

Under the Pensions Act 1995, schemes must satisfy the Minimum Funding Requirement (MFR), as described at the back of this report.

The MFR position of the Scheme as at 31st December 2002 is shown below.

	£m
Pensioners	92.5
Deferred pensioners	30.0
Members in service	70.8
Expenses	<u>5.4</u>
Total (= Minimum Funding Requirement)	198.7
Assets at market value	<u>163.1</u>
Ratio	82%

It can be seen that the ratio of the market value of the Scheme's assets to its MFR liabilities at the valuation date was 82%. A Statement confirming this is enclosed as Appendix 7.

The Government has stated its intention of replacing the MFR with a long-term funding standard specific to each pension scheme, together with a regime of greater disclosure and further protection for scheme members. Many of the proposals will go out for consultation first and some will require primary legislation. Until it is replaced, MFR remains fully in force and the process is expected to be a lengthy one.

The MFR provides one measure of the discontinuance funding level. However, in the event that the Scheme were to wind up, the actual outcome would be different, for a number of reasons, including the following:

- The cost of securing benefits, by way of annuity purchase, is likely significantly to exceed the MFR liabilities.
- Market conditions will be different from those applying at 31st December 2002.
- Actual expenses of winding up are likely to be different from the provision made above.

We have therefore considered an alternative measure, as described below.

7.2. Buying-out benefits

We have considered the cost of securing benefits for all members by the purchase of annuity and deferred annuity policies. For this purpose, we have included a provision for expenses based on the amount prescribed for MFR.

Although we have not obtained any detailed quotations, we estimate that at the date of the valuation, the assets of the Scheme could have been sufficient to meet about 40% of the cost of securing benefits for all members in this way. In practice, pensioners take priority over non-pensioners and we estimate that, had the Scheme wound up on 31st December 2002 and benefits been secured, non-pensioners might have received less than 20% of their accrued entitlements. This calculation is based on market conditions at the valuation date which are subject to potentially significant changes over time, both through fluctuations in asset values and changes in the

annuity premiums charged by insurance companies. In addition, the actual expenses of winding up are likely to be quite different from the provision made.

7.3. Statutory debt

Under proposed legislation, expected to be introduced with effect from 11th June 2003, the employer (assuming it is solvent) would be legally liable to meet the full cost of buying-out benefits, as described in the previous section. (There is, however, expected to be provision for the Trustees to accept a lower amount if circumstances warrant, for example if the amount would force the employer into insolvency.)

Where the employer is not solvent, the MFR value of benefits is used. As discussed in Section 7.1, we estimate that there would have been a deficit of approximately £35.6m on this basis as at the valuation date. In this instance, even if the debt were paid in full, non-pensioners would receive considerably less than their accrued entitlements.

8. Future contribution policy

Under Rule 3.4 (reproduced in Appendix 6), the employers' contributions are to be determined by the Actuary.

In April 2003, I advised that the contributions set out in the previously agreed "Schedule of Contributions" were insufficient to meet the MFR legislation. As required under the Pensions Act 1995, the Trustees have instructed me to carry out a valuation.

The provisional results of the valuation have been shared with the Principal Employer who has proposed that contributions should be increased so that, in aggregate, contributions from members and employers from 1st January 2004 will be at the rate of 15.3% of pensionable salaries, plus £6m a year. Contributions are proposed to increase in future, initially as set out in Appendix 8, although this will be subject to periodical review.

In considering whether such contributions are in accordance with Rule 3.4(1) which requires the amounts to be sufficient to "... provide the benefits payable and prospectively payable under the Scheme", I have considered a number of factors:

- To secure all the benefits with an insurance company would require an immediate contribution of some £240m.

- The MFR sets an effective minimum level of contributions (although Opra does have power to relax the MFR criteria and the Trustees and Principal Employer have approached Opra and applied for such a relaxation).
- The Principal Employer has provided financial statistics that indicate its ability to pay contributions to the Scheme. The Finance Director has confirmed that the Trustees may rely on this information and we have relied on it in coming to our recommendations.
- The Trustees have received legal advice to the effect that it would be appropriate for them to accept contributions at a level lower than would be required to achieve full funding on a conservative ongoing funding basis. This presumed that the effect of the Trustees demanding higher contributions could be that the employer went out of business and the Scheme were wound up with little or no additional assets available to meet the current deficit.
- It is important that the contributions payable are high enough that the buy-out funding level is projected to improve gradually over time. Otherwise, the level of cover for members' benefits would steadily deteriorate (all other things being equal).
- On the basis of the assumptions that I have made, as described in Appendix 5, contributions need to be at an overall level of 20.1% of pensionable salaries, with a further contribution to help pay off the deficit. The proposed contributions are equivalent to around 30.8% of pensionable salaries in total, so that the contribution towards the deficit is initially 10.7% of pensionable salaries, or around £4.1m pa.
- The assumptions set out in Appendix 5, particularly the assumptions about future investment returns, are only likely to be achieved if the Trustees continue to invest a significant proportion of the assets in equities and if equities deliver superior returns to those obtainable from bonds.
- If our assumptions were borne out in practice, further contributions of £11.8m a year for 15 years would be required to pay off the ongoing deficit of £114.6m revealed in Section 6.1. Contributions at £4.1m a year initially may be adequate (if it is accepted that the deficit is then only likely to be met over a longer period) but only in the short term and on the basis that higher contributions would be required if equity markets did not recover from their relatively low levels at the beginning of 2003. In this regard, it is comforting to note that equity markets have risen by 7-8% since the valuation date and by more than 30% since their low point in March 2003.

Taking all of the above factors into account, I am satisfied that the proposed contributions are within the range that would be considered acceptable under Rule 3.4(1), albeit towards the optimistic end of that range.

Members currently contribute at the rate of 6% of pensionable salaries. On this basis, employer contributions from 1st January 2004 would initially amount to 9.3% of pensionable salaries, plus £6m a year. Were members' contributions to increase, the employer contributions could be reduced pound for pound so that aggregate contributions remained the same.

The agreed contributions must be set out in a new Schedule of Contributions and I am required to certify whether the contribution rates as shown in the Schedule are expected to meet the MFR legislation. The timetable for completing the various documents is shown at the back of this report. As noted earlier, the Principal Employer and the Trustees have applied to Opra to extend the period over which the MFR deficit is to be addressed and we will prepare our certificate following Opra's ruling.

The actuarial statement required under Regulation 30 of the Actuarial Valuation Regulations is attached as Appendix 8.

9. Statutory surplus test

At 31st December 2002, the Scheme did not have an "excessive surplus" as determined for the purpose of certification to the Inland Revenue. The required certificate is attached as Appendix 9.

10. Conclusion

The valuation shows that the Scheme's financial position has deteriorated significantly since the previous valuation.

I am satisfied that the total contributions proposed to apply from 1st January 2004 are within the reasonable range for the required contributions to the Scheme, though towards the optimistic end of that range.

The position will need to be kept under review. The next formal valuation will be due as at 31st December 2005.

Yours faithfully



I R H Scott FIA
Partner
Appointed Scheme Actuary

**Halcrow Pension Scheme
Actuarial Valuation as at 31st December 2002**

Summary of benefits provided by the Scheme

Membership	The Scheme is closed to new joiners.
Pensionable Salary	Standard salary reduced by 1½ times the Lower Earnings Limit (or Basic State Pension if lower)
Final Pensionable Salary (FPS)	The greater of the best 12 months' Pensionable Salary in the last 36 months, or the average of the best 3 years' Pensionable Salaries in the last 10 years
Pensionable Service	Years and completed months of service as a member
Normal Retirement Age (NRA)	Most members have the option to choose between age 60 and age 65, with some having the option to select intermediate ages
Member's Contributions	6% of Pensionable Salary (5% up to age 25)
Normal Retirement Pension	2/105ths of FPS for each year of Pensionable Service prior to 1st March 2001. For service from 1st March 2001, the accrual rate is linked to NRA, being 1/75th of FPS if the chosen NRA is 60 on a scale up to 1/55th if NRA is 65
Temporary Pension	Paid from NRA to State Pensionable Age where applicable
Early Retirement Pension (subject to consent)	Pension as for normal retirement, reduced for early payment
Commutation	Member may elect to give up part of his/her pension for a tax-free cash sum
Benefits on Death after Retirement	
Qualifying dependant's pension	50% of the member's pension at death, ignoring any pension commuted for a lump sum at retirement. Children's pensions may be payable.
Lump sum (if death within 5 years of retirement)	Balance of pension payments (excluding any temporary pension) which would otherwise have been received had the member survived until the fifth anniversary of retirement
Benefits on Death in Service	
Qualifying dependant's pension	50% of the pension that would have been payable if the member had continued in employment until NRA, based on FPS at death. Children's pensions may be payable.

Lump sum

4 times Standard salary at date of death, plus return of the member's contributions. For Group Life members, who receive only a lump sum on death in service, the benefit is 2 times Standard salary at death for most such members.

Leaving Service

- more than 2 years' Pensionable Service
- less than 2 years' Pensionable Service

Deferred pension (payable from NRA) based on Pensionable Service completed

Member's contributions refunded, after deduction of a State Scheme premium and less tax at 20%

Pension Increases

Pensions in payment are guaranteed to increase each year in line with the RPI up to a maximum of 5% (known as "5% LPI"). Deferred pensions are guaranteed to increase in line with the RPI up to a maximum of 5% pa over the period from leaving to retirement. For members who joined the Scheme prior to April 1997 a higher guarantee may apply to some or all of their pension.

Notes

1. The Scheme is contracted-out of the State Second Pension on a defined benefits test basis and, for service prior to 6th April 1997, the benefits payable to each member are guaranteed to be no less than a prescribed amount, known as the guaranteed minimum pension or GMP.
2. We have made no allowance for possible changes to the benefit structure or benefit payments which may follow from Government changes to State benefits or Inland Revenue limits.
3. We have not allowed for any equalisation of members' GMPs, in view of the considerable uncertainty and ambiguity surrounding the way in which such benefits can be equalised.

Winding up

The Scheme Rules provide that in the event that the assets covered the cost of buying out the benefits by purchasing annuities and deferred annuities, any surplus could be used by the Trustees to augment benefits, or to provide additional benefits, in consultation with the Principal Employer (Halcrow Group Limited).

If the assets were insufficient, however, they would be allocated to provide benefits in order of priority with members' voluntary contributions, pensioners, dependants and members over Normal Retirement Age ranking above other members ie deferred pensioners. The details are set out in Section 15 of the Rules.

The Pensions Act 1995 overrides the Scheme Rules and provides, in particular, that upon winding-up prior to April 2007 basic benefits (but not deferred pensions earned in respect of service prior to 6th April 1997 other than GMPs), with no future increases (other than during deferment), should be secured for all members before providing for any increases. Different priorities will apply from April 2007.

The detail of the legislation and of Rule 15 is complicated and it is difficult to quantify the likely outcome in advance of actual winding-up.

The Government has published draft regulations which will have the effect of altering the statutory priority rules on winding up. In future, how assets are shared among members will reflect the length of time a member has been contributing to the scheme. Furthermore, the changes planned for 2007 will be brought forward so that increases to pensions in payment will rank after the benefits (without pension increases) for non-pensioners. The changes were expected to come into force later this year, but may now be delayed.

Finally, the Government has proposed the establishment of a Pensions Protection Fund to compensate defined benefit scheme members whose employers become insolvent with unfunded liabilities in their pension schemes. The details are yet to emerge and the Fund is unlikely to be established until 2005 at the earliest.

**Halcrow Pension Scheme
Actuarial Valuation as at 31st December 2002**

**Membership details
(Figures as at 5th April 2001 in brackets)**

1. Full Members	Number		Salaries as at 1st January 2003 £'000	
Males	1,190	(1,432)	40,659	(41,213)
Females	<u>310</u>	<u>(396)</u>	<u>6,987</u>	<u>(7,411)</u>
Total	<u>1,500</u>	<u>(1,828)</u>	<u>47,646</u>	<u>(48,624)</u>

Note:

Salary increases have averaged 7.7% pa for those members who were in service throughout the inter-valuation period. Increases in pensionable salaries (ie salary less 1½ times the LEL or BSP) averaged 8.0% pa over the period, a little more than we assumed.

2. Group Life Members	Number		Salaries as at 1st January 2003 £'000	
Males	608	(163)	16,811	(4,072)
Females	<u>268</u>	<u>(67)</u>	<u>5,420</u>	<u>(1,154)</u>
Total	<u>876</u>	<u>(230)</u>	<u>22,231</u>	<u>(5,226)</u>

3. Deferred Pensioners	Number		Pension as at Date of Leaving	
			£'000 pa	
Males	965	(820)	1,905	(1,594)
Females	<u>267</u>	<u>(225)</u>	<u>259</u>	<u>(211)</u>
Total	<u>1,232</u>	<u>(1,045)</u>	<u>2,164</u>	<u>(1,805)</u>

Note:

These pension figures exclude temporary pensions totalling £407,230 pa at date of leaving.

4. Pensioners	Number		Pensions as at	
			1st February 2003	
			£'000 pa	
Males	404	(366)	5,381	(4,482)
Females	<u>216</u>	<u>(197)</u>	<u>937</u>	<u>(786)</u>
Total	<u>620</u>	<u>(563)</u>	<u>6,318</u>	<u>(5,268)</u>

Notes:

In addition there were pensions totalling £35,504 pa payable to 17 children as at 31st December 2002 (£58,590 pa to 18 children in 2001).

These pension figures include temporary pensions totalling £225,930 pa. The data for deferred retirement cases is included in the pensioner figures.

Pensions in payment (in excess of GMPs where relevant) were increased in accordance with the guaranteed rates under the Rules on 1st February each year. Generally increases were at 5% pa although some members' increases were limited by Inland Revenue restrictions, and others received increases in line with the RPI.

**Halcrow Pension Scheme
Actuarial Valuation as at 31st December 2002**

**Consolidated revenue account
5th April 2001 to 31st December 2002**

	£'000	£'000
Opening fund at 5th April 2001		189,948
Income		
- Employer's contributions	10,408	
- Members' contributions - normal	3,905	
- Members' contributions - AVCs	1,263	
- Transfer values received	<u>2,310</u>	
Total income		17,886
Expenditure		
- Pensions	(9,716)	
- Lump sum commutations	(1,386)	
- Lump sums on death in service	(394)	
- Refunds of contributions on leaving service	(48)	
- Transfer values paid	(625)	
- Administration expenses	(575)	
- Investment management expenses	(686)	
- Other expenses	<u>(93)</u>	
Total expenditure		(13,523)
Investment income		
- Interest and dividends	5,371	
- Realised and unrealised gains	<u>(32,770)</u>	
Total investment income		<u>(27,399)</u>
Closing fund at 31st December 2002		<u><u>166,912</u></u>

Note:

The figures above include assets held in respect of members' Additional Voluntary Contributions. These amounted to £3,811,000 at the valuation date (£3,940,000 in 2001).

**Halcrow Pension Scheme
Actuarial Valuation as at 31st December 2002**

Composition of assets

Asset Type	Market Value at 31st December 2002	
	£'000	%
Equities		
- UK	67,611	41.4
- Overseas	28,691	17.6
Bonds		
- Fixed interest	24,719	15.2
- Index linked	11,722	7.2
Property	11,729	7.2
Cash and net current assets	<u>18,629</u>	<u>11.4</u>
Total	163,101	<u>100.0</u>
Members' AVCs	<u>3,811</u>	
Overall total	<u>166,912</u>	

**Halcrow Pension Scheme
Actuarial Valuation as at 31st December 2002**

Actuarial assumptions

For the purpose of calculating the value of future benefit and contribution payments, it is necessary to make certain assumptions regarding the rate of return to be earned on invested assets, the rate at which salaries will increase and the incidence of benefit payments.

1. Financial assumptions

The financial assumptions we have used for this valuation are set out below.

Rate of price inflation	2¼% pa
Rate of investment return	
- before retirement	6½% pa
- after retirement	5½% pa
Rate of increase in salary	4¼% pa
Rate of pension increases	
- fixed	5% pa
- 5% LPI	2¼% pa

As for the previous valuation, we have adopted assumptions for valuing the liabilities that are consistent with market conditions prevailing at the valuation date. At that time, long-term UK fixed interest gilts were yielding 4.4% pa and index-linked gilts were yielding 2.1% pa and so we have derived our assumed rate of inflation from these yields, ie $1.044/1.021 - 1 = 2.25\%$ pa.

The pre-retirement investment return is intended to reflect the potential return from investment in equities - a reasonable basis where money is being invested for the long term. The post-retirement return is intended to reflect a degree of investment in bonds, because of the need to recognise the shorter time scale for investment and the need for greater certainty of realisable value.

The assumed rate of investment return is 4¼% pa in excess of the rate of price inflation before retirement and 3¼% pa in excess of the rate of price inflation after retirement. By historic standards, we believe the above investment return assumptions represent reasonable

assumptions over the long term. It must, however, be expected that there will be periods over which such returns are not achieved and compensating periods when higher returns will be achieved.

The assumed rate of increase in salary is 2% pa more than the rate of price inflation.

We have assumed that pensions in payment will increase in line with price inflation or at the fixed rate of 5% pa where applicable. No allowance is made for discretionary pension increases (no recent practice of giving such increases exists) or other discretionary benefits.

All other things being equal, if the actual rate of investment return is higher than assumed, then the contribution rate indicated by the valuation will be higher than necessary. If the actual rate of salary or pension increase is higher than assumed, then a higher contribution rate may be required.

Although we have referred to absolute rates, it is the differences between the rates that have the greatest impact on the valuation results. Thus, for example, a higher rate of salary increase than assumed will not be detrimental if the rate of investment return achieved is similarly higher than assumed. Although the differences have the greatest impact, a reduction in the absolute rates also has a detrimental effect to the extent that part of the Scheme's pensions increase at a fixed rate in payment.

2. Assets

We have taken the assets into account at their market value. This is consistent with the values placed on the liabilities which are determined on the basis of market rates of return at the valuation date.

3. Comparison with 2001 assumptions

3.1. Financial assumptions

We have reduced our assumed rate of inflation, from 2½% pa to 2¼% pa, to reflect the lower outlook for future inflation implied by the market at the valuation date. We have reduced the assumed rates of investment return, salary increases and pension increases accordingly.

It is the differences between the rates assumed that most affect the results. In the table below, we compare the 2002 assumptions with those adopted in 2001.

Difference between:	2002	2001
Post-retirement investment return and fixed pension increases	½% pa	1¼% pa
Post-retirement investment return and 5% LPI pension increases	¾% pa	¾% pa
Pre-retirement investment return and general salary increases	¾% pa	3% pa

Compared to the assumptions made in 2001, we now assume a lower net return both after retirement (ie investment return in excess of pension increases) and before retirement (ie investment return in excess of salary growth). The effect of this is to increase the value placed on the liabilities.

3.2. Assets

For the 2001 valuation, we also took the assets into account at their market value.

It is important to note that market-based valuations can, by their nature, produce results that vary significantly from valuation to valuation. It means that results need to be treated with care, bearing in mind that the valuation is a “snapshot” on a particular date.

4. Demographic assumptions

4.1. Mortality

We have again adopted the “PA92” tables for mortality after retirement. These tables include an allowance for future improvements taking into account each individual’s date of birth.

We have again adopted the “A92” tables for mortality before retirement.

4.2. Proportions married

We have again assumed 90% of members will be married on their retirement, or earlier death, with wives three years younger than their husbands.

4.3. Early retirement

We have made allowance for early retirement from in service by assuming that 50% of members whose Normal Retirement Age (“NRA”) is higher than 60 will be permitted to take early retirement from age 60. We have assumed that the reduction for early payment applicable to pension for service before 1st March 2001 would be calculated by reference to the particular member’s previous NRA. There is however some uncertainty whether the reduction would be calculated by reference to age 60. The early retirement reductions have been calculated using the updated factors provided earlier this year.

4.4. Withdrawals

We have again included no allowance for members leaving service other than by death or retirement. There is a small but beneficial financial effect to the Scheme when a member leaves to the extent that the member’s deferred pension is revalued each year by less than the expected growth in his pensionable salary.

4.5. Expenses

The investment return assumptions are set to be net of all investment expenses.

We have included an allowance for expenses of administration of 1% of pensionable salary, which is the same assumption included in the previous valuation.

4.6. Commutation

We have assumed that members will exchange part of their pension for cash at retirement on the terms now available.

**Halcrow Pension Scheme
Actuarial Valuation as at 31st December 2002**

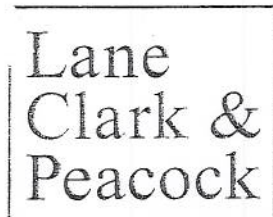
Extracts from Rules

Rule 3.4 (Employer's contributions) states that:

“(1) Each Participating Employer shall from time to time pay to the Trustees such amounts by way of contributions as shall be determined, from time to time, by the Actuary to be required to provide the benefits payable and prospectively payable under the Scheme”.

Rule 13.2 (Actuarial investigation) states that:

“(1) The Trustees must fix valuation dates, not more than three years apart (or as is otherwise required in accordance with the Pensions Act 1995 and any shorter period required for Approval). The Trustees must instruct the Actuary, as soon as is practicable after each valuation date, to investigate the financial condition of the Fund at that date and to prepare a signed actuarial valuation and statement about the Scheme's assets in relation to its liabilities in accordance with the Pensions Act 1995”.



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**ACTUARIAL STATEMENT
 Made for the Purposes of Regulation 14
 of the Occupational Pension Schemes
 (Minimum Funding Requirement
 and Actuarial Valuations)
 Regulations 1996**

Name of Scheme **Halcrow Pension Scheme**

Effective date of valuation **31st December 2002**

1. Compliance with minimum funding requirement

In my opinion, on the effective date the value of the assets of the scheme is 82 per cent of the amount of the liabilities of the scheme.


2. Security of preferential liabilities

In my opinion, on the effective date the assets of the scheme were sufficient to satisfy the liabilities of the scheme mentioned in section 73(3) of the Pensions Act 1995 (which lists the liabilities of schemes in the order in which they are to be met on a winding up) to the following extent-

Description of liability within section 73(3)	Percentage satisfied
2.1. All benefits except those in 2.2. below.	100%
2.2. Benefits mentioned in section 73(3)(f), ie benefits for active and deferred members excluding benefits deriving from AVCs, GMPs and section 9(2B) rights.	43%

3. Valuation principles

The scheme's assets and liabilities are valued in accordance with section 56(3) of the Pensions Act 1995, the Occupational Pension Schemes (Minimum Funding Requirement and Actuarial Valuations) Regulations 1996 and the mandatory guidelines on minimum funding requirement (GN27), prepared and published by the Institute of Actuaries and the Faculty of Actuaries.

Signature:  **Date:** 23rd October 2003

Name: I R H Scott **Address:** 30 Old Burlington Street
Appointed Scheme Actuary London
 Fellow of the Institute of Actuaries W1S 3NN

Note:

The valuation of the amount of the liabilities of the scheme does not reflect the cost of securing those liabilities by the purchase of annuities, if the scheme were to have been wound up on the effective date of the valuation.



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**ACTUARIAL STATEMENT
Made for the Purposes of Regulation 30
of the Occupational Pension Schemes
(Minimum Funding Requirement
and Actuarial Valuations)
Regulations 1996**

Name of Scheme **Halcrow Pension Scheme**

Effective date of valuation **31st December 2002**

1. Security of prospective rights

In my opinion, the resources of the scheme are likely in the normal course of events to meet in full the liabilities of the scheme as they fall due. In giving this opinion, I have assumed that the following amounts will be paid to the scheme:

Members' contributions:	As per the rules of the scheme.
Employer contributions:	Such that the total contributions to the scheme shall be no less than £6m per annum plus the following percentages of pensionable salaries:
	2004 15.3%
	2005 16.2%
	2006 17.1%

These contributions may not be adequate if the experience of the scheme subsequent to the valuation date, particularly the investment returns, is unfavourable compared to the actuarial assumptions used for the valuation. Furthermore, in assessing the adequacy of the contributions, we have assumed additional investment returns of 2½% pa over the period set out above.

Contributions will therefore be subject to review at future actuarial valuations.

This Statement covers the financial condition of the scheme on a long-term ongoing basis and not on discontinuance.

The position will be reviewed at the next actuarial valuation, due as at 31st December 2005. If, over the period from this valuation date to the next, the valuation assumptions, particularly those related to investment returns, are not achieved, then higher contributions would be required following the next valuation.

2. Summary of methods and assumptions used

The future contribution rate and the value of the past service liabilities have been assessed using the Projected Unit Method. The principal assumptions made are:

Existing Assets: Valued at 100% of market value

Financial Assumptions:

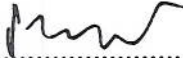
Return from investments	6½% pa pre-retirement 5½% pa post-retirement
Increases in salaries	4¼% pa
Increases in pensions	
in deferment	2¼% pa (where applicable)
in payment (5% LPI)	2¼% pa
in payment (fixed)	5% pa (excepting GMP element)

Other Assumptions:

Mortality	Appropriate modern tables
Withdrawals	No allowance
Early Retirements	We have assumed that 50% of members whose Normal Retirement Age is higher than 60 will be permitted to take early retirement from age 60.

In making my calculations, I have assumed that for those whose length of service was too short for them to qualify for accrued rights under the scheme, the qualifying service requirements of the Pension Schemes Act 1993 did not apply.

Further details of the methods and assumptions used are set out in my actuarial valuation addressed to the trustees or managers dated 23rd October 2003.

Signature:..... **Date:** 23rd October 2003

Name: I R H Scott **Address:** 30 Old Burlington Street
Appointed Scheme Actuary London
Fellow of the Institute of Actuaries W1S 3NN

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ACTUARIAL CERTIFICATE
given to the Commissioners of Inland Revenue
for the purpose of paragraph 2(3) of Schedule 22
to the Income and Corporation Taxes Act 1988

Name of Scheme: **Halcrow Pension Scheme**

Inland Revenue Reference No: **PS8/50817**

I hereby certify that:

- (1) in my opinion, as at 31st December 2002, the value of the assets of the scheme did not exceed 105 per cent of the value of the liabilities of the scheme;
- (2) the assets and liabilities to which paragraph (1) refers have been determined in accordance with principles and requirements prescribed by the Pension Scheme Surpluses (Valuation) Regulations SI 1987/412.

Signature:

Date: 23rd October 2003

Name: I R H Scott

Address: 30 Old Burlington Street
London

Fellow of the Institute of Actuaries

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ACTUARIAL VALUATIONS

Below is a description of the two most common funding methods. We also describe the Minimum Funding Requirement and some statutory requirements after the valuation is completed.

Projected unit

This method calculates the contribution required to meet the benefits expected to accrue to members over the year following the valuation date. It allows for projected future increases to pay through to retirement, date of leaving service or date of death as appropriate. If, from one valuation to the next, the average age of members remains fairly stable with new members joining to take the place of older leavers, the contribution rate calculated on consistent assumptions can be expected to remain reasonably stable.

Attained age

Under this method, the contribution required to meet the benefits expected to accrue to members over all their expected remaining membership of the scheme is calculated, expressed as a percentage of members' expected future pay. It allows for projected future increases in pay through to retirement, date of leaving service or date of death as appropriate. This method can be expected to lead to a reasonably stable contribution rate for a scheme closed to new members, once any surplus or deficit is taken into account.

Minimum Funding Requirement

The Minimum Funding Requirement (MFR) was introduced under the Pensions Act 1995. It is a "discontinuance" funding test as no allowance is made for future pay increases. Under the MFR, assets are taken at market value and the liabilities are calculated as the sum of:

- the amount required on prescribed assumptions to meet the benefits as they fall due, excluding any allowance for discretionary benefits (eg pension increases which are not guaranteed or early retirement options which are subject to employer or Trustee consent); and
- an allowance for expenses.

Note: for non-pensioners, the MFR represents the statutory minimum for calculating transfer values.

The ratio of the market value of the assets to the value of the MFR liabilities is then shown in the Actuarial Statement as required under Regulation 14 of the Occupational Pension Schemes (Minimum Funding Requirement and Actuarial Valuations) Regulations 1996, referred to as the MFR certificate.

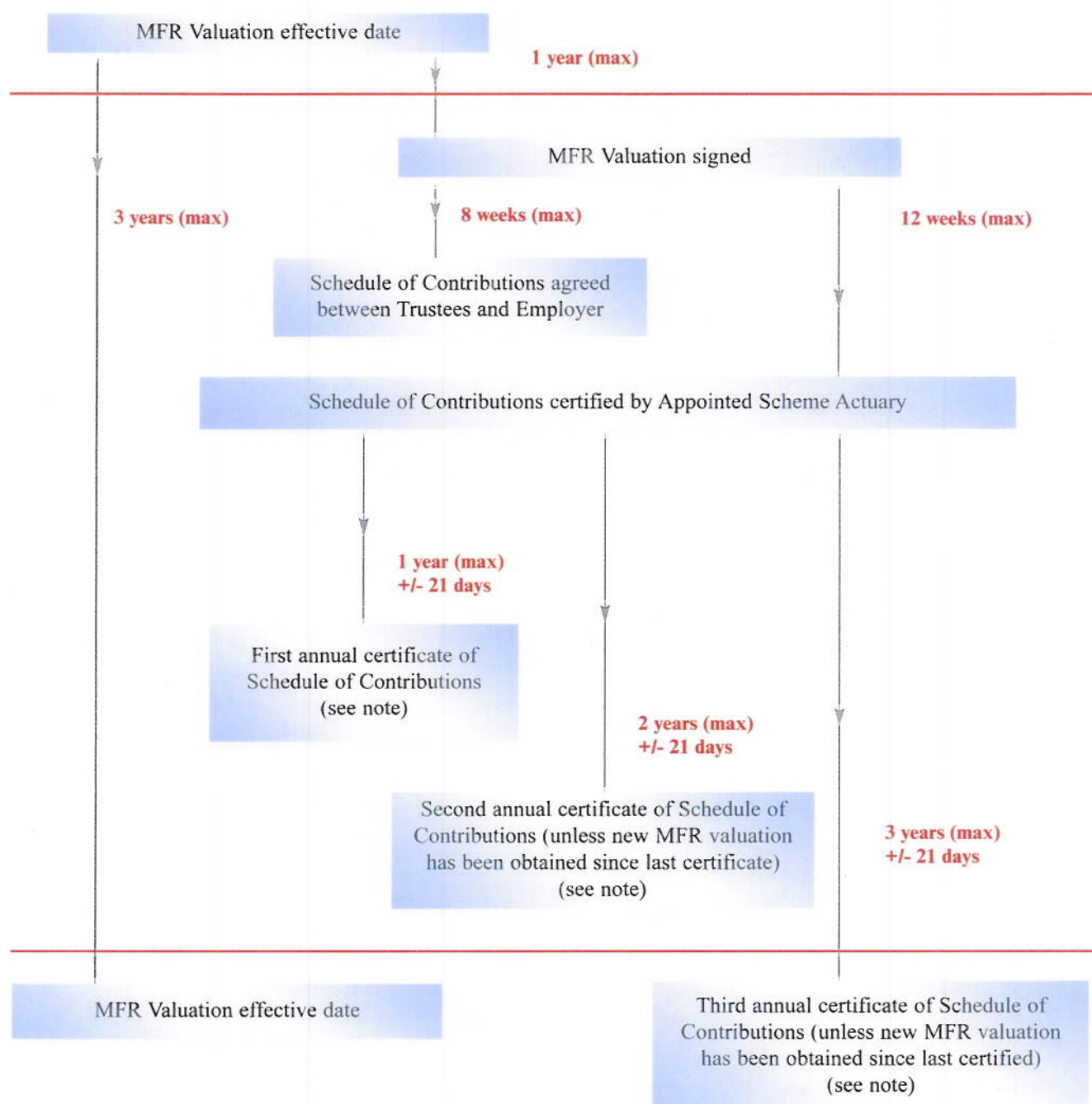
If the ratio is less than 100%, action must be taken to restore it to 100% within ten years. In addition, if the ratio is less than 90%, action must normally be taken to restore it to 90% within three years.

Schedule of contributions

The contributions agreed between the employer and the Trustees must be set out in a "schedule of contributions", which is then certified by the scheme actuary as meeting the MFR legislation. The timetable for completing the various documents is shown overleaf.

Note: In March 2001, the Government announced its intention of replacing MFR with a long-term scheme-specific funding standard.

MFR VALUATION TIMETABLE



Note: Schemes where the MFR cover is at least 100% at the effective date of the MFR Valuation and the schedule certification are exempt from the annual recertification requirement.



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