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4 September, 1997

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**THE BUDGET TAX CHANGES AND THE MFR**

As requested, I attach a report on the effect of the Budget changes on the MFR.

It is important to emphasise that this is not a complete review of the operation of the MFR. It was restricted to the issues set out in paragraph 2 of the report and assumes that the fundamental aspects of the MFR and the rationale for the various assumptions would not change. Given the importance of these assumptions and the rationale on which they were based, it would however be appropriate as part of the process of reviewing the MFR to ensure that current Ministers are content for it to continue to be based on the same strength as before.

The report is formulated having regard to the interests of DSS. If it is intended to transmit the advice contained in this report to a third party, I would ask you to seek my agreement in advance to the terms in which the advice is to be transmitted.

Yours sincerely,

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# MINIMUM FUNDING REQUIREMENT - EFFECT OF THE BUDGET CHANGES

## Introduction

1 This report is in response to a request from the DSS to the Government Actuary for advice on the effect of the July 1997 Budget tax changes on the Minimum Funding Requirement. The Government Actuary has asked me to respond in my capacity as actuarial adviser to the DSS.

2 The report deals with the following specific issues:

(a) whether the basis of the assumptions underlying the Minimum Funding Requirement (MFR) is still appropriate.

(b) whether the current MFR methodology and assumptions take a suitable and sufficient account of future increases in the capital value of UK equities and, if not, what would be the appropriate way to feed this into the MFR

(c) at a more detailed level, what the effect would be on the MFR assumptions if share prices enjoyed a greater than expected increase than that implied in the MFR assumptions; and the effect such capital gains could be expected to have on the long-term growth in dividend income from UK equities.

## Summary of Conclusions

3 For the MFR, the currently assumed long term annual rate of return on UK equities from dividends and capital growth is 10% a year in respect of the period after the MFR pension age (and 9% a year for the period before the MFR pension age when the rate is reduced to make implicit allowance for the expense charges of investing in personal pensions). Price inflation and salary growth are assumed to be 4% a year and 6% a year respectively. Whilst there is always some degree of uncertainty attached to any assumptions for future investment returns, I consider that these long-term assumptions made rather generous allowance for increases in the capital value of UK equities (paragraph 21).

4 In the light of the Budget changes to tax credits on UK equities and Corporation Tax, I consider that it would be reasonable for a reduction of 0.5% a year to be made to the assumed long-term annual rates of return from UK equities, if the strength of the MFR test is to remain consistent with that before the Budget. However, the full impact of the Budget changes may not yet have fed through to the level of share prices. As the rate of return depends critically on the price at which investments may be purchased, it will be important that these assumptions are kept closely under review in the near future (paragraphs 24-26).

5 The key MFR assumption, set by the previous Secretary of State, was that the annual return on UK equities should out-perform gilts by 1% a year for the period before the MFR pension age and 2% a year for the period after the MFR pension age. This report assumes that

the MFR continues to be based on the same "strength" as implied by these assumptions (paragraph 18).

6 The way in which the Market Value Adjustments (MVAs) operate to allow for current market conditions results in the assumed level of equity out-performance not applying at all times but only under certain market conditions. In the light of this, I consider that the operation of the MVA should be reviewed to determine whether it meets its objectives (paragraph 27). The MVA used to adjust the liabilities calculated with reference to UK equity returns is based on comparing the dividend yields at the time and under assumed "neutral" conditions, and the overall results are very sensitive to this comparison. As a result of the Budget changes, the dividend yield component of the total return to pension funds from investing in UK equities is likely to be reduced making the present equity MVA an unreliable method of adjustment. This needs to be taken into account in reviewing the MVA (paragraph 28).

7 On a more detailed point, the MVA in relation to equities is based on gross dividend yields. As has been recognised by all concerned, this will have to be changed to a "net" basis when the actuarial Guidance Note GN27 is revised (paragraph 23).

8 If UK share prices increased at a faster rate than assumed, then it would be appropriate to make changes to the MFR assumptions only if it was expected that such higher rates of growth could reasonably be assumed to continue for the longer-term future and that the higher rate of growth was not offset by some other change, such as a reduction in dividend yields. Any changes which become necessary in the light of future market experience should be made as part of the regular monitoring of all the MFR assumptions (paragraph 31).

## The Budget Changes

9 In the Budget on 2 July 1997, the Chancellor made the following changes which might be expected to affect the value of UK equities held as assets of pension schemes:

(a) advance corporation tax (ACT) credits on dividends (equal to the amount of advance corporation tax paid by companies) could no longer be reclaimed by pension schemes in respect of dividends received on or after 2 July 1997; and

(b) the rate of Corporation Tax was reduced from 33 % to 31%, with effect from April 1997.

10 Prior to the Budget, if a pension scheme received a dividend payment of £80 from a UK company, it could reclaim a tax credit of £20 from the Inland Revenue. The abolition of the tax credit recovery therefore means that, ignoring any other effects, each £100 of expected future income from UK dividends including the tax credit recovery will now be reduced to £80, a reduction of 20%.

11 The reduction of corporation tax to 31% should enable companies to increase the return they make to investors.

12 It is of course possible that higher net profits could be paid out in dividends. The effect would depend on the extent to which profits were distributed prior to the change. If a company

distributed all its profits, the 2% reduction in the corporation tax charge would enable the 20% fall in income for pension schemes to be reduced to about $17^1/_2$%. More typically, if a company which distributed between a third and a half of its profits passed all the corporation tax reduction on to its shareholders, the fall in income would be reduced from 20% to between 13 and 15%.

13 To the extent that the reduction in corporation tax was not immediately used to increase dividends, the additional retained profits can be expected to lead to an increase in the value of the company. This would lead to a corresponding increase in the return to shareholders, either as a result of higher capital value placed on the equity investments or through higher dividends in future. Although the timing of such higher returns would be different from that in the case where dividends were increased immediately by distributing all of the corporation tax reduction, it is reasonable to assume that the overall return to shareholders would not be affected by this timing difference.

14 These changes affect the expected future dividends from UK equity investments and may also affect the price of equities and future growth of equity prices. In considering how this could affect the assumptions underlying the Minimum Funding Requirement it is necessary to outline the rationale used when these assumptions were set.

## The Minimum Funding Requirement

15 The MFR was introduced in Section 56 of the Pensions Act 1995. It is aimed at ensuring that the value of the assets of an occupational pension scheme covered by that provision of the Act is not less than the amount of the liabilities. The principles governing the methods to be used in valuing the assets and liabilities for this purpose are set out in the primary legislation and Occupational Pension Schemes (Minimum Funding Requirement and Actuarial Valuations) Regulations 1996. Based on these principles, the actuarial Guidance Note GN27 sets out the practice standards to be used by Scheme Actuaries when carrying out MFR valuations.

16 The changes in the Budget potentially affect the MFR long-term financial assumptions, set out in GN27. It is important to consider the assumptions used for rates of investment return from UK equities in the context of all the relevant assumptions, including that on inflation and how allowance should be made for current market conditions. The relevant assumptions are:

| | % a year |
|---|---|
| Rate of inflation | 4 |
| Effective rate of return on gilts | 8 |
| Effective rate of return on equities - pre-MFR pension age | 9 |
| Effective rate of return on equities - post-MFR pension age | 10 |
| Rate of earnings growth | 6 |

Real rate of return on index-linked gilts is 3.846% a year (using 1.08/1.04 from above)
Real rate of return on equities - post-MFR pension age is 5.759% a year (1.1/1.04)

17 In addition, in order to take account of current market conditions, it is assumed that the gross dividend yield on the FT-SE Actuaries All-Share Index will be 4.25% under "normal"

conditions. The "Market Value Adjustment" (MVA) factor is then calculated as the ratio of this 4.25% to the actual gross dividend yield in that index on the relevant date.

18 The assumed difference between the rates of return on equities and gilts is critical to the strength of the MFR. As the strength of the MFR is a political rather than an actuarial issue, the difference of 1% a year between the rates of return on equities pre-MFR pension age and on gilts was set by the previous Secretary of State, based on advice from the Faculty and Institute of Actuaries on the implications of possible different assumptions. The rationale was that if the cash equivalent transfer values (CETVs) calculated using the equity assumption until 10 years before MFR pension age, then moving gradually into gilts, were invested in a personal pension, there should be a 50/50 chance of matching the corresponding occupational scheme deferred pension benefit. The 1% annual equity out-performance therefore included an allowance for the expenses of investing in a personal pension as well as the "pure" equity return. The 2% equity out-performance assumption used for the post-MFR pension age period excluded this implicit allowance and so is the "pure" equity investment return assumption. This report assumes that the MFR continues to be based on the same "strength" as implied by these assumptions

19 The 10% a year assumption for the effective total rate of return on equities is therefore 2% a year higher than the return on gilts and is a combination of the 4.25% dividend yield assumption and a growth rate assumption of 5.75%.

20 This growth rate can be regarded as either received from a continuous rate of growth of dividend income, assuming that the assets are not sold, or as a combination of continuously increasing dividend increases for the period until the assets are sold and an increase in the capital value of the equities when they are sold. Although actuaries often refer to valuing equities on the basis of a continuous and increasing stream of dividend payments, this is primarily for ease of calculation. It does not imply that the increase in the capital value of equities is ignored.

21 The equity growth rate assumption of 5.75% a year is marginally lower than the rate of earnings increase. There is always some degree of uncertainty attached to any assumptions for future investment returns. However, taken together with the assumed gross dividend yield of 4.25%, I consider this assumption made quite a generous allowance for increases in the capital value of equities.

## Effect of the Budget Changes

22 The Budget changes directly affect the above MFR assumptions and the MVA calculation. Using gross dividend yields is no longer appropriate. As a result, the MVA factor for equities will have to be changed in due course and the calculation carried out on the actual dividend yield received by pension schemes rather than "gross" yields. That would require a change to be made to the "normal" 4.25% dividend yield assumption (reducing it by some 20% if no other changes are considered necessary). In calculating the MVA factor, both yields used in calculating the ratio will have been changed from a "gross" to a "net" basis, so that the resulting ratio should be identical if no other changes are made. (See also paragraphs 27-28.)

23 As a practical expedient until the other assumptions have been reviewed and as long as the gross dividend yield figures are published, it is possible to continue to carry out the MVA calculation as set out in GN27.

**Long-term Rates of Return**

24 Based on the assumed gross dividend yield of 4.25%, the loss of the tax credit would reduce that by 0.85% to 3.4%. At present, the gross dividend yield on the FT-SE Actuaries All-Share Index is about 3.5%, and has varied between 3.3% and 3.9% over the past year. A reduction of 20% would therefore reduce the current gross dividend yield by about 0.7%. If account is taken of the reduction in the rate of corporation tax as in paragraph 12 above, it would be reasonable to assume a lower reduction in the overall rate of investment return as the higher retained profits will benefit shareholders either immediately through higher dividends or subsequently due to increased reinvestment and higher longer-term profits. On this basis, I would suggest that the rates of return on UK equities should be reduced by 0.5% a year.

25 Although this change would include allowance for the effect of higher growth rates if lower corporation tax leads to higher re-investment, it makes no allowance for any other source of higher longer term growth. As stated in the Report by the Working Party of the Faculty and Institute of Actuaries into the actuarial implications of these changes, it would "not be prudent to assume that there will be higher long term profits until there is clear evidence that this will be the case".

26 The rate of return on investments in UK equities made in future will also depend upon any market response to the loss of the tax credit by pension schemes. Any fall in the market would increase the future rate of return if dividends and growth rates are unchanged (apart from the changes arising from the budget tax changes). It is impossible to assess reliably the extent to which the Budget changes may already have been factored into equity prices prior to Budget Day. Similarly, there is no evidence of any subsequent market adjustment. As a result, at present I do not consider that there is any evidence of market changes which need to be taken into account by adjusting further the assumed 0.5% a year reduction. However, as the markets may take some time before the full effect of the Budget changes is reflected in pension scheme investment policies and in market prices, it will be important for the assumptions to be monitored closely to ensure that they remain appropriate in the light of any future changes.

**Market Value Adjustment**

27 The long term rates of return were set in the light of the political decision made on the strength of the MFR. This resulted in the key assumption, set by the previous Secretary of State, that the return on UK equities should out-perform gilts by 2% a year (or 1% a year). However the way in which the Market Value Adjustments operate to allow for current market conditions results in this assumed level of out-performance not applying at all times but only under certain market conditions. As a result, and indeed under current market conditions, the combined operation of the long-term assumptions and the MVA currently can produce results which do not allow for the 2% a year (or 1% a year) out-performance from that point in time. In the light of this, I consider that the operation of the MVA should be reviewed to determine whether it meets its objectives.

28 The MVA used to adjust the liabilities calculated with reference to UK equity returns is based on comparing the dividend yields at the time and under assumed "neutral" conditions, and

the overall results are very sensitive to this comparison. As a result of the Budget changes, the dividend yield component of the total return to pension funds from investing in UK equities is likely to be reduced. As the tax changes were made on the grounds that the previous system discouraged internal investment and encouraged distributing profits via dividends, it is also possible that there will be changes in the financing arrangements within companies, including on their dividend policy. This could further affect the relative importance of dividend income within the overall rate of return and make the present equity MVA an unsuitable method of adjustment. This needs to be taken into account in reviewing the MVA.

**Effect on the MFR assumptions of a higher than expected growth in share prices**

29 I was asked to comment specifically on what effect there would be on the MFR assumptions if UK share prices enjoy a higher than expected increase than implied in the MFR assumptions. At present, the MFR basis implies an assumed average annual rate of increase of 5.75% in share prices. This has to be seen against the corresponding assumptions for the rates of price and earnings increases of 4% a year and 6% a year respectively. The long term dividend yield is assumed to be 4.25%.

30 If UK share prices increase in future at a faster rate than assumed, the effect on the continuing suitability of the MFR assumptions would depend upon the changes, if any, to the future experience of the other factors. In particular, as far as the overall return on equities is concerned, it would be important to take account of any changes to the dividend yield. The stated aim of the Budget change was to remove the perceived encouragement which the previous regime gave towards distributing profits through higher dividends rather than reinvesting the profits internally. As commented earlier when discussing the MVA, it is possible that there will be a change in future in the relative importance of dividends and capital gains in the make-up of the total return investors receive from investing in equities. Thus any change in future in share price growth cannot be considered in isolation.

31 It must also be recognised that the MFR UK equity return assumptions relate to the return over a period extending into the long-term future. It would only be appropriate to make changes to the MFR assumptions if any apparent difference between the assumptions and the recent experience seemed likely to apply in the longer term. Any changes which became necessary to the long-term assumptions in the light of future market experience, either as a result of changes to dividend yields or growth in share prices, should be made as part of the normal regular monitoring of all the MFR assumptions.

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