



# Government Actuary's Department

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18 June 2015

Dear Colette

## **Actuarial factors for AFPS 05/RFPS Inverse commutation**

1. Further to my letter of 21 May and Alan's letter of 7 April setting out our proposed general approach to factor reviews, this letter sets out our advice on inverse commutation factors for eligible members of AFPS 05 and RFPS in accordance with scheme regulations, together with new tables of factors.
2. As discussed, inverse commutation factors are "GAD-controlled" factors and so these factors are effective immediately. If you intend to delay implementation, you should seek legal advice on the implications.
3. The letter is not appropriate for any other purpose. No third party (eg scheme members) is entitled to rely on it and GAD has no liability to any third party for any act or omission taken on the basis of this letter.
4. GAD seeks to achieve a high standard in all our work. Please go to our website for details of the standards we apply.

## **Background**

5. Inverse commutation refers to the option for AFPS 05 and RFPS members to give up all or part of their retirement lump sum in exchange for additional pension.
6. The previous inverse commutation factors were issued in August 2011 following the introduction of the new SCAPE discount rate in the March 2011 Budget.
7. The review is being conducted in light of the actuarial valuation of the Armed Forces pension arrangements carried out as at 31 March 2012 which was completed on 24 February 2015.

## **AFPS 05 regulations**

8. The Armed Forces Pension Scheme Order 2005 (as amended) states in Rule D.10 that:

*(1) A member may opt to exchange the whole or any part of the lump sum to which he would otherwise be entitled under this Part for an increase*

- a. *in the amount of pension payable to himself under these Rules, or*
- b. *in the amount of pension payable to himself and to any other person under these Rules as a result of his membership of the Scheme.*

*(2) Where a member so opts, the pension in respect of which he exercises the option is to be increased as from the date it is otherwise payable by so much as in the opinion of the Scheme Actuary is equivalent in value to the amount of the whole or, as the case may be, the relevant part of the lump sum in question.*

- 9. The RFPS reference is similar (also Rule D.10).
- 10. There are no references in the regulations as to how these inverse commutation rates should be derived or how regularly they should be reviewed.
- 11. The previous tables of inverse commutation factors were determined in terms of actuarial equivalence to the benefits given up, on assumptions consistent with those used to set employer contributions to the scheme under the SCAPE methodology.
- 12. As set out in Alan's letter of 7 April 2015 and agreed with John McCullagh, the factors set out in this letter follow this principle.

#### **Key actuarial assumptions used to determine the new factors**

- 13. The major assumptions to consider for the inverse commutation factors are the discount rate and the mortality assumptions.
- 14. Appendix A summarises the main assumptions for calculating the new inverse commutation factors.

#### **Discount rate**

- 15. We have adopted the same long-term SCAPE discount rate as used to determine employer contributions to AFPS in the 2012 valuation. This can be considered to represent the cost to the scheme of providing the benefits otherwise payable.
- 16. The long-term SCAPE discount rate used in the 2012 valuation was 3% pa in excess of assumed CPI, which is unchanged since the last factor review.

#### **Mortality Assumptions**

- 17. We might expect members taking up this option to experience higher than normal life expectancy (i.e. such members might be 'selecting against the scheme'). However, suitable data is not available in respect of members who have taken the inverse commutation option to allow us to determine whether the mortality experience of such members differs from the mortality experience of scheme members in normal health.
- 18. We understand that the take-up of this assumption is low, and hence the assumed mortality rates will not have a material impact on scheme financing. As a result, we are content that more detailed consideration of the mortality assumption is not appropriate.
- 19. The previous factors used the "PA92" standard tables adjusted to reflect the available experience for the mortality of AFPS pensioners. Future improvements in post-retirement mortality were based on those underlying the ONS 2008-based principal population projections for the UK.

20. For the new factors we have used the assumptions adopted for the 2012 actuarial valuation for post-retirement mortality which were based on the “S1” standard tables adjusted to reflect the latest available experience for the mortality of AFPS pensioners. The mortality rates of 110% of S1NXA were arrived at by combining the 2012 valuation post-retirement mortality for officers and other ranks based on the relative proportions of officers and other ranks in service. Future improvements in post-retirement mortality are based on those underlying the ONS 2012-based principal population projections for the UK.

### **Proportion married**

21. We have assumed that 100% of members who opt for member and spouse’s pension are married or have a civil or registered partner at death.

### **Other considerations**

22. In the previous review of inverse commutation factors, separate factors were used for males and females but the same factors were used for all ranks of members. We are not aware of any relevant changes in circumstances and so we have prepared the new factors using the same approach. The factors are similar across all ranks so this administrative simplification does not make a significant difference to the outcomes for members.
23. The new factors are slightly more generous than the previous factors. This is due to the change in mortality assumptions. We would expect the proposed factors to be broadly cost-neutral to the scheme by reference to the assumptions used to determine employer contributions under the SCAPE methodology.

### **New factors**

24. Appendix B sets out new factors for inverse commutation in AFPS 05 and RFPS. These are based on the assumptions set out in Appendix A.
25. The factors represent the annual amount of additional pension derived from giving up a lump sum of £100. The new factors are provided in a similar format to the previous factors.
26. We would expect these factors to remain appropriate while the current SCAPE discount rate remains in force and while mortality rates remain broadly in line with the assumptions. However, as set out in our Service Level Agreement, we will keep these factors under review in accordance with our statutory responsibilities under the regulations and advise you if and when we believe a further review is necessary. Please let us know if there are any relevant changes in regulations or circumstances which might affect our consideration of these factors.

### **Next steps**

27. Please would you arrange for these factors to be implemented via DBS? The factors are determined by the Scheme Actuary and therefore should be implemented with effect from the date of this letter. However, we understand that there may be administrative difficulties in implementing the factors with immediate effect. If you intend to delay implementation then you should seek legal advice on the implications.

28. We will also shortly provide an updated version of our factors spreadsheet which includes the new inverse commutation factors. We note that you or DBS may also need to review any guidance which references these factors.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Joanne Rigby'.

**Joanne Rigby**  
**Consulting Actuary**

## APPENDIX A

### Summary of proposed assumptions for AFPS05/RFPS inverse commutation rates

**Table A1 – Financial assumptions**

<b>Assumption</b>	<b>Rate</b>	<b>Notes</b>
Discount rate (in excess of CPI inflation)	3.00%	In line with long term SCAPE rate

**Table A2 – Demographic assumptions**

<b>Assumption</b>	<b>Notes</b>
<b>Post-retirement mortality</b>	
Base mortality	“S1” tables issued by the Actuarial Profession. Mortality of 110% of S1NXA based on combining the 2012 valuation mortality for officers and other ranks based on the relative proportions of officers and other ranks in service.
Future mortality improvements	ONS 2012-based principal population projections for the UK, consistent with approach adopted for actuarial valuations and Annual Accounts
<b>Other</b>	
Proportion married at death	100%
Age difference	Males older than females by 3 years at all ages

## APPENDIX B

### Inverse commutation factors

TABLE 1-701, 2-701

Amount of additional pension per £100 of lump sum

Age last birthday at commutation date	Member's Pension		Member's and Spouse's pension	
	Male £	Female £	Male £	Female £
55	4.94	4.73	4.45	4.51
56	5.04	4.82	4.52	4.58
57	5.15	4.91	4.59	4.66
58	5.26	5.00	4.67	4.74
59	5.38	5.10	4.76	4.83
60	5.51	5.20	4.85	4.92
61	5.65	5.32	4.94	5.02
62	5.79	5.44	5.04	5.13
63	5.95	5.57	5.15	5.24
64	6.11	5.70	5.26	5.37
65	6.29	5.85	5.39	5.50
66	6.48	6.01	5.52	5.64
67	6.69	6.19	5.66	5.79
68	6.92	6.37	5.81	5.96
69	7.17	6.58	5.98	6.14
70	7.44	6.80	6.15	6.33