



Government Actuary's Department

Police pension schemes (Scotland)

1987 Scheme

Commutation on retirement

Factors and guidance

Date: 31 October 2018

Author: Samantha Watts



Contents

1	Introduction	1
2	Administration	3
3	Example calculations	6
4	Tables of factors	12



1 Introduction

Scope of this guidance note

- 1.1 Regulation B7 of the Police Pensions Regulations 1987 (SI 1987/257) (“the Regulations”) states that a member entitled to an ordinary, short service, ill-health or deferred pension may commute a portion of their pension for a lump sum. Additionally, regulation M11 of the Regulations states that a pension credit member may commute a portion of their pension.
- 1.2 The lump sum is the actuarial equivalent of the commuted portion of pension at the date of retirement, calculated from tables prepared by the Scheme actuary.
- 1.3 The purpose of this note is to provide the tables for commutation of pension to lump sum in the 1987 police pension scheme in Scotland.
- 1.4 This guidance supersedes any previous guidance or advice issued by the Government Actuary's Department (GAD) in connection with police pension commutation and has immediate effect.
- 1.5 This note should not be used for any purpose other than to determine the commutation factor that should be applied to the amount of pension commuted to provide a lump sum in the 1987 scheme in Scotland. For example:
 - > This guidance does not apply to exchange of lump sum for additional annual pension in the 2006 police pension scheme.
 - > This guidance does not apply to the commutation of pension for lump sum in the 2015 police pension scheme.
 - > This guidance does not apply to the trivial commutation of pension under regulations B8 and E4(3) of the Regulations, regulation 38 of the Police Pensions (Scotland) Regulations 2007 and regulation 193 of the Police Pensions Scheme (Scotland) Regulations 2015.
 - > This guidance does not cover the calculation of the capitalised value of benefits for the purpose of determining death gratuities under regulation E3 of the Regulations, regulation 45 of the Police Pensions (Scotland) Regulations 2007 and regulation 156 of the Police Pensions Scheme (Scotland) Regulations 2015.
 - > This guidance does not cover officers in England and Wales or Northern Ireland. These officers are covered under separate guidance.
- 1.6 This note should be considered in its entirety, not as individual sections which if considered in isolation, may be misleading, and conclusions reached by a review of some sections on their own may be incorrect.
- 1.7 This note only covers the actuarial principles around the calculation and application of commutation factors. Any legal advice in this area should be sought from an appropriately qualified person or source.



Underpin to commutation lumps in England and Wales

- 1.8 Regulations B7(7A) and B7(7B) of the Regulations state that the commutation factors applicable in England should be used for retirements in Scotland where this would lead to a greater lump sum for retirement dates up to and including 31 March 2022.
- 1.9 We can confirm that the factors in England will lead to larger lump sums in all cases.
- 1.10 For these members, lump sums should be separately calculated using the factors and guidance that apply in England and Scotland. The member should be awarded the larger of these lump sums.
- 1.11 Please note that the underpin mentioned in paragraph 1.8 above does not apply to pension credit members.

Changes to previous guidance

- 1.12 We have revised all of the commutation factors from those set out in the commutation guidance dated 18 March 2016. This guidance note includes updated tables and illustrative examples to show these revised factors. We have **not** altered the guidance and formulae that should be used to calculate commutation lump sums in the 1987 scheme in Scotland.



2 Administration

- 2.1 The amount of 1987 scheme pension that can be commuted is subject to the limits set out in the Regulations. In most cases a quarter of the pension can be commuted. With some exceptions, an ordinary pension in respect of at least 25 but less than 30 years of service can be commuted to give a maximum lump sum of no more than two and a quarter times the full amount of the gross annual pension. Please refer to the Regulations for full details of the commutation limits applicable to members.
- 2.2 Regulation B10 of the Regulations describes additional restrictions on the level of pension that can be commuted in certain circumstances.
- 2.3 Restrictions on pension commutation are also imposed by the pension taxation regime under Finance Act 2004. Administrators must ensure that the payment of a lump sum in lieu of pension is compliant with the tax rules as well as with the Regulations. The main taxation restriction is that for a lump sum to be authorised under the tax rules it must not exceed 25% of the total value of benefits crystallised. Additionally, where an officer's pension savings exceed HMRC's Lifetime Allowance (LTA), an additional tax charge may fall due. In cases where lump sum benefits are payable in two instalments (as described in paragraphs 2.8 to 2.12), we would expect both lump sums to be separately tested against the member's remaining LTA at the point when each lump sum is paid.

Please refer to HMRC guidance for further information.

- 2.4 There are some scenarios where the 25% HMRC limit could potentially be breached.
- > A member with a commutation factor above 20 commutes 25% of their pension. This can be avoided by commuting a lower proportion of pension.
 - > Allocation in accordance with the regulation B9 of the Regulations.

Please refer to HMRC guidance if such cases arise.

1987 scheme commutation – retiring from active service

- 2.5 For an officer retiring on pension directly from active pensionable service (and for pension credit members) the lump sum payable can be determined as follows:

pension given up × factor from Table 1

Equivalently, the pension given up can be determined as follows:

lump sum payable ÷ factor from Table 1

- 2.6 Examples 1 and 2 in section 3 illustrate this calculation, including an example showing how it may be possible to prevent breaching the 25% HMRC limit.



1987 scheme commutation – break between leaving service and pension commencing

- 2.7 For an officer retiring with a break between leaving service as an active member in the police pension schemes and pension commencing, the commutation lump sum should be calculated as in paragraph 2.5 above in the following cases:
- > if the pension commences at or above age 55; or
 - > if the pension commences on grounds of ill health before age 55 and attracts full pension increases.
- 2.8 In other cases, that is where the pension commences before age 55 and the member is not immediately entitled to full pension increases, an alternative calculation is needed. The three main scenarios where this arises are as follows (note others may exist):
- > Officer left service before age 50 with at least 25 but less than 30 years of pensionable service. The 1987 scheme pension comes into payment at age 50 but pension increases are not payable until 55.
 - > Officer left service with a deferred pension entitlement and is later awarded early payment of the pension on ill-health grounds but does not meet the criterion to receive pension increases under the Pensions (Increase) Act. The 1987 scheme pension comes into payment immediately but pension increases are not payable until 55.
 - > Officer opted out of the scheme after accruing 30 years' pensionable service but does not take the pension immediately. The 1987 scheme pension comes into payment later, before age 55, and pension increases are not payable until 55.
- 2.9 In these cases, the lump sum will be payable in two instalments. One lump sum will be payable when the pension commences; a second lump sum will be payable when the member reaches age 55 (when the member becomes entitled to pension increases). The amount of the second lump sum is equal to the amount of the lump sum paid at retirement multiplied by the percentage pension increase applying between the member leaving pensionable service and the pension commencing. The second lump sum is not affected by pension increases accrued after the benefits come into payment.



2.10 In these cases, the lump sum (as calculated in accordance with the Regulations) should be split between the two payment dates as follows:

a) Lump sum payable when pension commences:

$$\text{Pension given up} \times \frac{\text{factor from Table 1} + (\text{PI}\% \times \text{factor from Table 2})}{1 + (\text{PI}\% \times \text{factor from Table 3})}$$

b) Lump sum payable at age 55:

$$\text{Lump sum payable when pension commences} \times \text{PI}\%$$

where PI% is the percentage increase in the pension that is attributable to pension increases effective during the period between leaving pensionable service and the pension commencing. (Pension increases accrued after the pension commences are not to be included.)

2.11 Alternatively, the pension given up can be determined as follows:

$$\frac{\text{Lump sum payable when pension commences} \times (1 + (\text{PI}\% \times \text{factor from Table 3}))}{\text{Factor from Table 1} + (\text{PI}\% \times \text{factor from Table 2})}$$

2.12 Example 3 in section 3 illustrates this calculation.

Samantha Watts
Fellow of the Institute and Faculty of Actuaries
31 October 2018



3 Example calculations

3.1 This section provides examples of the calculations described in this note.

Example 1 – Retiring from active service

3.2 Date of birth: 22 December 1968

Date pension commences: 22 December 2018

Pensionable Service: 25 years (excluding doubling)

Total pension payable: £20,000 per year

Age on day pension commences: 50 years 0 months

Commutation Factor = 23.80 (from Table 1)

3.3 The member retires at age 50 with 25 years' service, so the maximum lump sum he can commute according to the Regulations is two and a quarter times the full amount of the pension.

3.4 Maximum lump sum = $2.25 \times 20,000$
= **£45,000**

3.5 Pension after commutation for maximum lump sum
= $20,000 - (45,000 \div 23.80)$
= **£18,109.24 per year**



Example 2 – Avoiding breaching the 25% HMRC limit

- 3.6 To illustrate how members may be able to avoid breaching the 25% HMRC limit by commuting less pension than the maximum available under the 1987 scheme, this example makes use of the current tax regime in force at the time of writing, in its most common form. Administrators should check whether there have been any changes to the tax regime, or whether any additional complexities apply, before undertaking individual calculations. Individuals may wish to seek financial advice regarding pensions and taxation.
- 3.7 Date of birth: 15 August 1967
Date pension commences: 15 August 2019
Pensionable Service: 30 years (excluding doubling)
Total pension payable: £30,000 per year
Age on day pension commences: 52 years 0 months
Commutation Factor = 23.10 (from Table 1)
- 3.8 The member retires from active service at age 52 with 30 years' service, so the maximum amount of pension available to commute according to the Regulations is a quarter of the full amount of the pension.
- 3.9 Maximum lump sum under scheme regulations
$$= 30,000 \times \frac{1}{4} \times 23.10$$
$$= \mathbf{\pounds 173,250}$$
- 3.10 Pension after commutation for the maximum lump sum permitted under scheme regulations
$$= 30,000 - (173,250 \div 23.10)$$
$$= \mathbf{\pounds 22,500 \text{ per year}}$$
 (which is $\pounds 30,000 \times \frac{3}{4}$)
- 3.11 Under the current tax regime, the maximum lump sum that can be taken without being liable for a tax charge is 25% of the combined assessed value of the post-commutation pension and lump sum. To assess the value of the post-commutation pension HMRC currently use a factor of 20.
- 3.12 Under HMRC's assessment the value of these benefits is therefore:
$$= (22,500 \times 20) + 173,250$$
$$= \pounds 623,250$$
- 3.13 25% of this:
$$= 25\% \times 623,250$$
$$= \pounds 155,812.50$$



3.14 Therefore, if the member commuted the maximum under the scheme regulations (to give a lump sum of £173,250), they would be liable for a tax charge, as this exceeds the maximum tax-free lump sum permitted (£155,812.50).

3.15 To calculate the maximum amount of pension that can be commuted in this case without incurring a tax charge, it is necessary first to calculate the maximum 1987 scheme lump sum allowable within the HMRC limit.

3.16 HMRC's maximum tax-free lump sum is calculated using the following equation:

$$\begin{aligned}\text{Maximum lump sum} &= \frac{20 \times \text{pension before commutation}}{3 + (20 \div \text{factor from table 1})} \\ &= \frac{20 \times 30,000}{3 + (20 \div 23.10)} \\ &= \mathbf{\pounds 155,207} \text{ (rounded down to nearest } \pounds 1)\end{aligned}$$

3.17 Setting the lump sum from the 1987 scheme at this level ensures that the HMRC limit is not exceeded.

3.18 The amount of pension required to be commuted from the 1987 scheme to provide this maximum *tax-free* lump sum:

$$\begin{aligned}&= 155,207 \div 23.10 \\ &= \pounds 6,718.92 \text{ per year}\end{aligned}$$

3.19 The pension remaining after commutation:

$$\begin{aligned}&= 30,000 - 6,718.92 \\ &= \mathbf{\pounds 23,281.08 \text{ per year}}\end{aligned}$$

3.20 To check that this is within HMRC limits, HMRC's assessment of the value of these benefits is:

$$\begin{aligned}&= (23,281.08 \times 20) + 155,207 \\ &= \pounds 620,828.60\end{aligned}$$

3.21 25% of this:

$$\begin{aligned}&= 25\% \times 620,828.60 \\ &= \pounds 155,207.15\end{aligned}$$

3.22 So payment of the lump sum of £155,207 calculated above will not breach the tax-free limit (provided that there has been no breach in the member's Lifetime Allowance).



Example 3 – Pension commencing at age 51 after earlier opt out on reaching 30 years' service

3.23 As per Example 2, this example shows how members can avoid breaching the 25% HMRC limit by commuting less than the maximum available under the 1987 scheme. This example makes use of the current tax regime in force at the time of writing, in its most common form. Administrators should check whether there have been any changes to the tax regime, or whether any additional complexities apply, before undertaking individual calculations. Individuals may wish to seek financial advice regarding pensions and taxation.

3.24 Date of birth: 30 June 1968

Pension at date of leaving pensionable service: £32,000 per year

Date pension commences: 15 October 2019

Accrued pension increases when pension commences (PI%): 5%

Age on day pension commences: 51 years 3 months

Factor from Table 1 = 23.33

Factor from Table 2 = 19.93

Factor from Table 3 = 0.849

3.25 Maximum pension that can be commuted under scheme regulations¹:

$$= 32,000 \times \frac{1}{4}$$

$$= £8,000 \text{ per year}$$

3.26 Leaving a pension after commutation of: $32,000 - 8,000 = \mathbf{£24,000 \text{ per year}}$

3.27 Maximum lump sum payable under scheme regulations when pension commences (using the formula in 2.10a):

$$= \text{Pension given up} \times \frac{\text{factor from Table 1} + (\text{PI}\% \times \text{factor from Table 2})}{1 + (\text{PI}\% \times \text{factor from Table 3})}$$

$$= 8,000 \times \frac{23.33 + (5\% \times 19.93)}{1 + (5\% \times 0.849)}$$

$$= \mathbf{£186,687.13}$$

¹ Based on this member's service and age



- 3.28 Subsequent lump sum payable at age 55 (using the formula in 2.10b):
- $$\begin{aligned}
 &= \text{Lump sum payable when pension commences} \times \text{PI percentage} \\
 &= 186,687.13 \times 5\% \\
 &= \mathbf{\pounds 9,334.36}
 \end{aligned}$$
- 3.29 Under the current tax regime, the maximum lump sum that can be taken without being liable for a tax charge is 25% of the combined assessed value of the post-commutation pension and lump sum at each Benefit Crystallisation Event ('BCE'). To assess the value of the post-commutation pension HMRC currently use a factor of 20.
- 3.30 Under HMRC's assessment the value of the above benefits at the pension commencement date is therefore:
- $$\begin{aligned}
 &= (\text{pension after commutation} \times 20) + \text{lump sum payable when pension commences} \\
 &= (24,000 \times 20) + 186,687.13 \\
 &= \pounds 666,687.13
 \end{aligned}$$
- 3.31 25% of this:
- $$\begin{aligned}
 &= 25\% \times 666,687.13 \\
 &= \mathbf{\pounds 166,671.78}
 \end{aligned}$$
- 3.32 Therefore, if the member commuted the maximum under the scheme regulations at pension commencement (£186,687.13) they would be liable for a tax charge, as this exceeds the maximum tax-free lump sum permitted (£166,671.78).
- 3.33 To calculate the maximum amount of pension that can be commuted in this case without incurring a tax charge, it is necessary first to calculate the maximum 1987 scheme lump sum allowable within the HMRC limit.
- 3.34 HMRC's maximum tax-free lump sum at the pension commencement date is calculated using the following equation:
- 3.35 Maximum lump sum =
$$\frac{20 \times \text{pension before commutation}}{\{3 + [20 \times (1 + \text{PI}\% \times \text{F3}) \div (\text{F1} + \text{PI}\% \times \text{F2})]\}}$$
- Where
- F1 is the factor from Table 1
 - F2 is the factor from Table 2
 - F3 is the factor from Table 3
- 3.36 Inserting the factors and PI% into the formula:
- $$\begin{aligned}
 \text{Maximum lump sum} &= \frac{20 \times 32,000}{\{3 + [20 \times (1 + 5\% \times 0.849) \div (23.33 + 5\% \times 19.93)]\}} \\
 &= \pounds 165,929 \text{ (rounded **down** to nearest } \pounds 1)
 \end{aligned}$$



3.37 Setting the lump sum payable at the date pension commences from the 1987 scheme at this level ensures that the HMRC limit is not exceeded.

3.38 The amount of pension required to be commuted from the 1987 scheme to provide this maximum *tax-free* lump sum (using the formula in 2.11):

$$\begin{aligned} &= 165,929 \times \frac{(1 + (\text{PI}\% \times \text{factor from Table 3}))}{\text{Factor from Table 1} + (\text{PI}\% \times \text{factor from Table 2})} \\ &= 165,929 \times \frac{(1 + (5\% \times 0.849))}{23.33 + (5\% \times 19.93)} \\ &= \mathbf{\pounds 7,110.46 \text{ per year}} \end{aligned}$$

3.39 The pension remaining after commutation:

$$\begin{aligned} &= 32,000 - 7,110.46 \\ &= \mathbf{\pounds 24,889.54 \text{ per year}} \end{aligned}$$

3.40 *Tax-free* lump sum from the 1987 scheme at age 55 (using the formula in 2.10b):

$$\begin{aligned} &= 165,929 \times 5\% \\ &= \mathbf{\pounds 8,296.45} \end{aligned}$$

3.41 To check that this is within HMRC limits, HMRC's assessment of the value of these benefits is:

$$\begin{aligned} &= (24,889.54 \times 20) + 165,929 \\ &= \pounds 663,719.80 \end{aligned}$$

3.42 25% of this:

$$\begin{aligned} &= 25\% \times 663,719.80 \\ &= \pounds 165,929.95 \end{aligned}$$

3.43 So payment of the lump sum of $\pounds 165,929$ calculated above will not breach the tax-free limit (provided that there has been no breach in the member's Lifetime Allowance).



4 Tables of factors

Table 1 – Factors for commutation of pension to lump sum

Males and Females

Years	Age in years and completed months on day pension commences											
	0	1	2	3	4	5	6	7	8	9	10	11
Below 48	24.30											
48	24.30	24.30	24.30	24.30	24.30	24.30	24.30	24.28	24.27	24.25	24.23	24.22
49	24.20	24.17	24.13	24.10	24.07	24.03	24.00	23.97	23.93	23.90	23.87	23.83
50	23.80	23.77	23.73	23.70	23.67	23.63	23.60	23.57	23.53	23.50	23.47	23.43
51	23.40	23.38	23.35	23.33	23.30	23.28	23.25	23.23	23.20	23.18	23.15	23.13
52	23.10	23.07	23.03	23.00	22.97	22.93	22.90	22.87	22.83	22.80	22.77	22.73
53	22.70	22.66	22.62	22.58	22.53	22.49	22.45	22.41	22.37	22.33	22.28	22.24
54	22.20	22.17	22.13	22.10	22.07	22.03	22.00	21.97	21.93	21.90	21.87	21.83
55	21.80	21.76	21.72	21.68	21.63	21.59	21.55	21.51	21.47	21.43	21.38	21.34
56	21.30	21.26	21.22	21.18	21.13	21.09	21.05	21.01	20.97	20.93	20.88	20.84
57	20.80	20.76	20.72	20.68	20.63	20.59	20.55	20.51	20.47	20.43	20.38	20.34
58	20.30	20.26	20.22	20.18	20.13	20.09	20.05	20.01	19.97	19.93	19.88	19.84
59	19.80	19.77	19.73	19.70	19.67	19.63	19.60	19.57	19.53	19.50	19.47	19.43
60	19.40	19.36	19.32	19.28	19.23	19.19	19.15	19.11	19.07	19.03	18.98	18.94
61	18.90	18.85	18.80	18.75	18.70	18.65	18.60	18.55	18.50	18.45	18.40	18.35
62	18.30	18.26	18.22	18.18	18.13	18.09	18.05	18.01	17.97	17.93	17.88	17.84
63	17.80	17.76	17.72	17.68	17.63	17.59	17.55	17.51	17.47	17.43	17.38	17.34
64	17.30	17.25	17.20	17.15	17.10	17.05	17.00	16.95	16.90	16.85	16.80	16.75
65	16.70	16.66	16.62	16.58	16.53	16.49	16.45	16.41	16.37	16.33	16.28	16.24
66	16.20	16.15	16.10	16.05	16.00	15.95	15.90	15.85	15.80	15.75	15.70	15.65
67	15.60	15.55	15.50	15.45	15.40	15.35	15.30	15.25	15.20	15.15	15.10	15.05
68	15.00	14.96	14.92	14.88	14.83	14.79	14.75	14.71	14.67	14.63	14.58	14.54
69	14.50	14.45	14.40	14.35	14.30	14.25	14.20	14.15	14.10	14.05	14.00	13.95
70	13.90	13.85	13.80	13.75	13.70	13.65	13.60	13.55	13.50	13.45	13.40	13.35
71	13.30	13.25	13.20	13.15	13.10	13.05	13.00	12.95	12.90	12.85	12.80	12.75
72	12.70	12.66	12.62	12.58	12.53	12.49	12.45	12.41	12.37	12.33	12.28	12.24
73	12.20	12.15	12.10	12.05	12.00	11.95	11.90	11.85	11.80	11.75	11.70	11.65
74	11.60	11.55	11.50	11.45	11.40	11.35	11.30	11.25	11.20	11.15	11.10	11.05
75	11.00											



Table 2 – Additional factors in respect of accrued pension increases for use in commutation before age 55 after a break since leaving pensionable service

Males and Females

Years	Age in years and completed months on day pension commences											
	0	1	2	3	4	5	6	7	8	9	10	11
Below 48	14.90											
48	14.90	14.90	14.90	14.90	14.90	14.90	18.70	18.73	18.77	18.80	18.83	18.87
49	18.90	18.93	18.97	19.00	19.03	19.07	19.10	19.13	19.17	19.20	19.23	19.27
50	19.30	19.34	19.38	19.43	19.47	19.51	19.55	19.59	19.63	19.68	19.72	19.76
51	19.80	19.84	19.88	19.93	19.97	20.01	20.05	20.09	20.13	20.18	20.22	20.26
52	20.30	20.33	20.37	20.40	20.43	20.47	20.50	20.53	20.57	20.60	20.63	20.67
53	20.70	20.74	20.78	20.83	20.87	20.91	20.95	20.99	21.03	21.08	21.12	21.16
54	21.20	21.25	21.30	21.35	21.40	21.45	21.50	21.55	21.60	21.65	21.70	21.75



Table 3 – Timing adjustment factors for use in commutation before age 55 after a break since leaving pensionable service

Males and Females

Years	Age in years and completed months on day pension commences											
	0	1	2	3	4	5	6	7	8	9	10	11
Below 48	0.621											
48	0.621	0.621	0.621	0.621	0.621	0.621	0.754	0.757	0.759	0.762	0.765	0.767
49	0.770	0.773	0.776	0.779	0.781	0.784	0.787	0.790	0.793	0.796	0.799	0.801
50	0.804	0.807	0.810	0.813	0.816	0.819	0.822	0.825	0.828	0.831	0.834	0.837
51	0.840	0.843	0.846	0.849	0.852	0.856	0.859	0.862	0.865	0.868	0.871	0.874
52	0.878	0.881	0.884	0.887	0.890	0.894	0.897	0.900	0.903	0.907	0.910	0.913
53	0.917	0.920	0.923	0.927	0.930	0.933	0.937	0.940	0.944	0.947	0.950	0.954
54	0.957	0.961	0.964	0.968	0.971	0.975	0.978	0.982	0.986	0.989	0.993	0.996