

APPENDIX 1

SOME EXAMPLES

We consider four **simplified** examples to help you understand the changes. Please note that these are for illustration only. The **factors** are shown in **red**. The amounts that change have been underlined.

AVC means additional voluntary contributions account, and PB means performance bonus account. The combination of these, with Fund investment returns, are referred to as the Money Purchase Balance.

Formula for Pension = Pension Rate X Final Average Salary X Pensionable Service

EXAMPLE 1: EARLY RETIREMENT DUE TO ILL HEALTH

MARRIED MALE RETIREE		MARRIED FEMALE RETIREE:	
Age	55	Age	55
Normal retirement age	65	Normal retirement age	65
Years of service	32	Years of service	32
Spouse	aged 5 years younger (50)	Spouse	aged 5 years older (60)

<p>ASSUMPTIONS:</p> <ul style="list-style-type: none"> • Early retirement due to ill-health at 55: • His accrued service is 32 years. • His future potential service is 10 years. • His final average pensionable emoluments = R400 000 • His AVC and PB balance = R350 000 <p>Formula pension = 2.17% (Pension accrual rate) x 400 000 x (32 + 75% x 10) = R342 860 per annum</p> <p>Spouse's pension = 60% x 342 860 = R205 716 per annum</p> <p>Pension after one-third commutation = 2/3 x 342 860 = R228 573 per annum</p> <p>One-third commutation on formula pension Old factors: 1/3 x 342 860 x 10.802 = <u>R1 234 525</u> New factors: 1/3 x 342 860 x 9.677 = <u>R1 105 952</u></p> <p>AVC/PB pension: One-third commutation = 1/3 x 350 000 = R116 667</p>	<p>ASSUMPTIONS:</p> <ul style="list-style-type: none"> • Early retirement due to ill-health at 55: • Her accrued service is 32 years. • Her future potential service is 10 years. • Her final average pensionable emoluments = R400 000 • Her AVC and PB balance = R350 000 <p>Formula pension = 2.17% (Pension accrual rate) x 400 000 x (32 + 75% x 10) = R342 860 per annum</p> <p>Spouse's pension = 60% x 342 860 = R205 716 per annum</p> <p>Pension after one-third commutation = 2/3 x 342 860 = R228 573 per annum</p> <p>One-third commutation Old factors: 1/3 x 342 860 x 13.674 = <u>R1 562 756</u> New factors: 1/3 x 342 860 x 11.936 = <u>R1 364 126</u></p> <p>AVC/PB pension: One-third commutation = 1/3 x 350 000 = R116 667</p>
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<p>Pension - old factors: $(2/3 \times 350\,000) / 15.106 = \underline{R15\,446}$ per annum Spouse's pension (on death of pensioner) = $60\% \times 15\,446 = \underline{R9\,268}$ per annum</p> <p>Pension – new factors: $(2/3 \times 350\,000) / 12.994 = \underline{R17\,957}$ per annum Spouse's pension (on death of pensioner) = $60\% \times 17\,957 = \underline{R10\,774}$ per annum</p> <p>Total Old factors: pension = R 244 019 p.a. (R228 573 + R15 446) and cash lump sum = R 1 351 192 New factors: pension = R 246 530 p.a. (R228 573 + R17 957) and cash lump sum = R 1 222 619</p>	<p>Pension - old factors: $(2/3 \times 350\,000) / 15.611 = \underline{R14\,947}$ per annum Spouse's pension (on death of pensioner) = $60\% \times 14\,947 = \underline{R8\,968}$ per annum</p> <p>Pension – new factors: $(2/3 \times 350\,000) / 13.426 = \underline{R17\,379}$ per annum Spouse's pension (on death of pensioner) = $60\% \times 17\,379 = \underline{R10\,428}$ per annum</p> <p>Total Old factors: pension = R 243 520 p.a. (R 228 573 + R 14 947) and cash lump sum = R 1 679 423 New factors: pension = R 245 952 p.a. (R 228 573 + R 17 379) and cash lump sum = R 1 480 793</p>
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EXAMPLE 2: NORMAL RETIREMENT AT AGE 65 OF A MARRIED MEMBER

MARRIED MALE RETIREE

ASSUMPTIONS:

- He retires at **normal retirement age 65**:
- His accrued service is 42 years.
- His final average pensionable emoluments = R400 000
- His AVC and PB balance = R350 000

Formula pension = 2.17% (Pension accrual rate) x 400 000 x 42 = R364 560

Spouse's pension = 60% x 364 560 = R218 736

Pension after one-third commutation = $\frac{2}{3}$ x 364 560 = R243 040

One-third commutation

Old factors: $\frac{1}{3}$ x 364 560 x **9.604** = R1 167 078

New factors: $\frac{1}{3}$ x 364 560 x **8.711** = R1 058 561

AVC/PB pension:

One-third commutation = $\frac{1}{3}$ x 350 000 = R116 667

Pension - old factors: $(\frac{2}{3} \times 350\,000) / \mathbf{12.870} = \mathbf{R18\,130}$ per annum

Spouse's pension (on death of pensioner) = 60% x 18 130 = R10 878 per annum

Pension – new factors: $(\frac{2}{3} \times 350\,000) / \mathbf{11.341} = \mathbf{R20\,574}$ per annum

Spouse's pension (on death of pensioner) = 60% x 20 574 = R12 345 per annum

Total

Old factors: pension = R 261 170 p.a. (R243 040 + R18 130) and cash lump sum = R 1 283 745

New factors: pension = R 263 614 p.a. (R243 040 + R20 574) and cash lump sum = R 1 175 228

MARRIED FEMALE RETIREE:

ASSUMPTIONS:

- She retires at **normal retirement age 65**:
- Her accrued service is 42 years.
- Her final average pensionable emoluments = R400 000
- Her AVC and PB balance = R350 000

Formula pension = 2.17% (Pension accrual rate) x 400 000 x 42 = R364 560

Spouse's pension = 60% x 364 560 = R218 736

Pension after one-third commutation = $\frac{2}{3}$ x 364 560 = R243 040

One-third commutation

Old factors: $\frac{1}{3}$ x 364 560 x **12 466** = R1 514 868

New factors: $\frac{1}{3}$ x 364 560 x **11 027** = R1 340 001

AVC/PB pension:

One-third commutation = $\frac{1}{3}$ x 350 000 = R116 667

Pension - old factors: $(\frac{2}{3} \times 350\,000) / \mathbf{13.244} = \mathbf{R17\,618}$ per annum

Spouse's pension (on death of pensioner) = 60% x 17 618 = R10 571 per annum

Pension – new factors: $(\frac{2}{3} \times 350\,000) / \mathbf{11.696} = \mathbf{R19\,950}$ per annum

Spouse's pension (on death of pensioner) = 60% x 19 950 = R11 970 per annum

Total

Old factors: pension = R 260 658 (R243 040 + R17 618) and cash lump sum = R 1 631 535

New factors: pension = R 262 990 (R243 040 + R19 950) and cash lump sum = R 1 456 668

EXAMPLE 3: NORMAL RETIREMENT OF A SINGLE/ UNMARRIED MEMBER

SINGLE MALE RETIREE	SINGLE FEMALE RETIREE:
Age 65	Age 65
Years of service 42	Years of service 42
Single member does not provide for a future spouse in respect of the AVC/PB balance.	Single member does not provide for a future spouse in respect of the AVC/PB balance.

SINGLE MALE RETIREE	SINGLE FEMALE RETIREE:
<p>ASSUMPTIONS:</p> <ul style="list-style-type: none"> • He retires at 65 • His accrued service is 42 years. • His final average pensionable emoluments = R400 000 • His AVC and PB balance = R350 000 <p>Formula pension = 2.17% (Pension accrual rate) x 400 000 x 42 = R364 560 Spouse's pension = 60% x 364 560 = R218 736 (if married at future date of death)</p> <p>Pension after one-third commutation = $\frac{2}{3} \times 364\ 560 =$ R243 040</p> <p>One-third commutation Old factors: $\frac{1}{3} \times 364\ 560 \times \mathbf{9.604} = \underline{\mathbf{R1\ 167\ 078}}$ New factors: $\frac{1}{3} \times 364\ 560 \times \mathbf{8.711} = \underline{\mathbf{R1\ 058\ 561}}$</p> <p>AVC/PB pension One-third commutation = $\frac{1}{3} \times 350\ 000 =$ R116 667</p> <p>Pension - old factors: $(\frac{2}{3} \times 350\ 000) / \mathbf{9.700} = \underline{\mathbf{R24\ 055}}$ per annum Spouse's pension (if married at future date of death) = 0</p> <p>Pension - new factors: $(\frac{2}{3} \times 350\ 000) / \mathbf{8.798} = \underline{\mathbf{R26\ 521}}$ per annum Spouse's pension (if married at future date of death) = 0</p> <p>Total Old factors: pension = R 267 095 p.a. (R243 040 + R24 055) and cash lump sum = R 1 283 745 New factors: pension = R 269 561 p.a. (R243 040 + R 26 521) and cash lump sum = R 1 175 228</p>	<p>ASSUMPTIONS:</p> <ul style="list-style-type: none"> • She retires at 65: • Her accrued service is 42 years. • Her final average pensionable emoluments = R400 000 • Her AVC and PB balance = R350 000 <p>Formula pension = 2.17% (Pension accrual rate) x 400 000 x 42 = R364 560 Spouse's pension = 60% x 364 560 = R218 736 (if married at future date of death)</p> <p>Pension after one-third commutation = $\frac{2}{3} \times 364\ 560 =$ R243 040</p> <p>One-third commutation Old factors: $\frac{1}{3} \times 364\ 560 \times \mathbf{12.466} = \underline{\mathbf{R1\ 514\ 868}}$ New factors: $\frac{1}{3} \times 364\ 560 \times \mathbf{11.027} = \underline{\mathbf{R1\ 340\ 001}}$</p> <p>AVC/PB pension: One-third commutation = $\frac{1}{3} \times 350\ 000 =$ R116 667</p> <p>Pension - old factors: $(\frac{2}{3} \times 350\ 000) / \mathbf{12.590} = \underline{\mathbf{R18\ 533}}$ per annum Spouse's pension (if married at future date of death) = 0</p> <p>Pension - new factors: $(\frac{2}{3} \times 350\ 000) / \mathbf{11.137} = \underline{\mathbf{R20\ 951}}$ per annum Spouse's pension (if married at future date of death) = 0</p> <p>Total Old factors: pension = R 261 573 p.a. (R243 040 + R18 533) and cash lump sum = R 1 631 535 New factors: pension = R 263 991 p.a. (R243 040 + R20 951) and cash lump sum = R 1 456 668</p>

APPENDIX 2

HOW DO THE FUND'S NEW FACTORS COMPARE WITH INSURANCE COMPANY ANNUITY RATES?

The **money purchase conversion factors** serve a similar function to open market insured life annuity rates. However, care must be taken in comparing insured life annuity rates with the EPPF money purchase conversion factors, because:

- The terms and conditions of the annuity policy under comparison would need to mirror identically the terms and conditions of payment of EPPF pensions, otherwise the comparison is invalid. The EPPF has its own rules, policies and practices on pension increases, annual pensioner bonuses and treatment of spouses' and children's pensions, which are probably not easily replicated in an insurance product.
- The cost structures are different. The EPPF has a lower cost structure than an insurance company.
- Insurance company rates would include profit margin for the insurers, whereas the fund has no such margins.

Based on an assumed AVC / PB balance of R1 000 000 (with no allowance for commutation), the table below compares the monthly pension secured using the EPPF money purchase conversion factors with the **indicative** monthly pension available from two major insurance companies (as an example) via an insured life annuity policy. In these examples, for both the EPPF rate and the insurance company rates, the pensions shown for a married member assume that the female spouse is 5 years younger than the male spouse and vice versa.

Gender and age at retirement	Monthly pension per R1 000 000 investment (Rand)				
	EPPF (new factors)	Insurer 1		Insurer 2	
		Inflation-linked	With profits (4.5%)	Inflation-linked	With profits (4%)
Married female					
50	5 916	4 076	4 723	4 365	5 626
55	6 207	4 282	5 068	4 727	5 966
60	6 591	4 560	5 537	5 200	6 429
65	7 125	4 941	6 157	5 833	7 066
Single female					
50	6 198	4 205	4 895	4 647	5 910
55	6 507	4 448	5 291	5 062	6 303
60	6 913	4 776	5 829	5 597	6 826
65	7 483	5 229	6 509	6 306	7 535
Married male					
50	6 079	4 055	4 728	4 382	5 739
55	6 413	4 255	5 060	4 716	6 039
60	6 823	4 519	5 483	5 097	6 409
65	7 348	4 869	6 028	5 629	6 954
Single male					
50	7 165	4 668	5 376	5 325	6 721
55	7 777	5 078	5 929	5 805	7 180
60	8 526	5 627	6 609	6 296	7 661
65	9 472	6 368	7 437	7 050	8 447

These insurance company annuity rates are based on the following:

Commencement date	:	1 August 2022
Commission loading	:	Nil
Administration expenses	:	Upfront capital deductions; monthly administration, investment management and platform fees
Payment frequency	:	Monthly
Spouse's pension	:	60%
Pension increase allowance*	:	Inflation-linked (i.e. CPI guaranteed) <u>OR</u> 4% "with profits" purchase category <u>OR</u> 4.5% "with profits" purchase category as indicated.
Other provisions	:	No guaranteed payment period, no annual bonus.

* With-profit pensions are a type of annuity product where the insurer declares pension increases each year which should in part offset the effects of inflation. The with-profit product is available at various "post-retirement rates" or "pri's". The higher the pri the higher the starting pension but the lower the future pension increase expectations and vice versa. The EPPF's current pri is 5.9% and the Fund aims to grant increases in line with inflation, subject to affordability. Ideally, we would have wanted to obtain quotes from the insurers on the same 5.9% pri but this was not possible. The highest pri available from insurer 1 is 4.5% and the highest pri available from insurer 2 is 4.0%. The pension increase target from these insurance products is between 80% and 90% of inflation.