EQUINITI

InFocus Document
Valuing Withdrawal Benefits

Contents

1 Introduction

If a withdrawal decrement applies for Actives, the User must define how deferred benefits should be calculated in SuperVal. This document addresses how withdrawal benefits are set up and valued.

This document is based on V9.25 of SuperVal. Any screenshots from previous versions are not materially different.

2 Deferred Pension (Retirement):

The deferred pension benefit where there is a withdrawal decrement for active members is determined by parameters on the "Financial", "Legislation" and "Leaving" tabs, along with your "Slice" structure.

2.1 Slices tab

For each Slice (benefit tranche) the user can specify whether the benefit re-values using one of the three rates available from the drop down list. This is available under the Slice tab, under the "Slice Indicators" frame. The revaluation in deferment rates for excess and GMP are specified on the "Financial" and "Legislation" tab as discussed below.

2.2 Financial and Legislation tab

Deferred Revaluation

The "Rate" field applies in deferment to the excess over GMP benefit. The frame below is found on the "Financial" tab.

Note that up to three different deferred revaluation rates can be specified (Rate, Rate 2 & Rate 3). The appropriate rate can be picked when defining each benefit slice.

Loading adjustment factors can also be applied. These will only be applied to the part of the Pup that has arisen from Slices indicated for ERF table 1 (even though such tables are not actually applied to the deferred pension). This would be typically used where there is a "Barber window" of service and therefore a need to reflect an earlier retirement age. See separate in-focus document "Equalisation of Retirement Ages" for more details.

GMPs

The frame below is found on the "Legislation" tab and deals with how the GMP (standard data items) increases in active service, and re-values in deferment.

In Deferment

The type of revaluation applicable to SPA after exit from active service is determined by the setting for "Revaluation Type to SPA".

Active Service

The field "Section 148 Orders" rate applies to the GMP while the member is still active and will therefore apply to the GMP up to the assumed (future) exit point.

NRA<SPA

Where retirement age is before SPA the make-up of the Pup at NRA will be determined by the setting for "Revalue to NRA<SPA":

If left "un-ticked" then GMP will not be re-valued

If "ticked" then the GMP will be re-valued according to "Revaluation Rate to NRA<SPA"

Note **Complete years will be used and not complete tax years (to NRA<SPA only)**

An adjustment will be made at SPA for GMP revaluations to SPA not already in payment. The option used for the "Franking Code" field determines the amount of this adjustment.

The way SuperVal treats retirements before SPA is illustrated below:

Pensions at NRA	Pensions at SPA
+ Anti - Franking Guarantee	Pre 6/4/1988 GMP (at SPA)
	Post 6/4/1988 GMP (at SPA)
Main Pup (incl. NRA "GMP")	Main excess over GMP (at SPA)
Special Pup (incl. NRA "GMP")	Special excess over GMP (at SPA)
PenInc3 Pup (incl. NRA "GMP")	PenInc3 excess over GMP (at SPA)
PenInc4 Pup (incl. NRA "GMP")	PenInc4 excess over GMP (at SPA)

The amount of step up at SPA will be determined by the combination of the "Revaluation Type to SPA" "Revaluation Rate to NRA<SPA" and the "Franking Code".

In summary, SuperVal will value temporary annuities between NRA and SPA. At SPA an addition is made for the required GMP revaluations and the pension amounts then valued as whole life annuities.

Franking Code

There are 5 options as follows:

- 0 – None
- 1 – Partial Franking
- 2 – Full Franking
- 3 – Maximum Franking
- 4 – No Anti Franking Guarantee

From 0 to 4 there is a reducing amount added at SPA for GMP revaluations. This is illustrated by the examples in Appendix 1.

IR Maxima

SuperVal does not apply the IR Maximum rules specified on the "Legislation" tab to deferred benefits. The reason for this is that IR Maximum rules generally speaking occur when all the benefits are considered at retirement.

2.3 VARPRINT and ACCPRINT

The calculation of the deferred pension at NRA at assumed future exit points is shown in Section 2400 (Leaving Service Pension) before any SPA adjustments. Loading adjustments to Pups are carried out in section 2450 (these apply to deferred amounts from Slices indicated for Early Retirement Factor Table 1 (ERF1)).

A summary of deferred pension at NRA is shown in Section 2460.

SPA Adjustments for GMP revaluations are shown in 2600.

The capitalised value (i.e. annuity_{NRA} x D_{NRA} / $D_{Age\ at\ Exit}$) of these benefit amounts at the assumed exit point are shown in Section 6000. The capitalised values are shown for excess over GMP and GMP separately in the following sections:

Section	Description
6000	GMP valued as payable from the later of SPA and NRA
6200	Main excess over GMP
6300	Special excess over GMP
6350	PenInc3 excess over GMP
6400	PenInc4 excess over GMP

All the excess over GMPs are valued as temporary annuities to SPA (where NRA < SPA) and as whole life annuities from SPA after SPA adjustments.

3 Death in Deferment Benefits

Benefits payable on death in deferment can be pensions, lump sums or both.

The parameters are specified on the "Leaving" tab that appears as follows:

3.1 Death in Deferment Pensions

There are 6 options for this benefit that appear as follows:

A brief description of each of these is set out below:

None

Select this option if there is no pension benefit on death in deferment.

GMP then Spouse's Fraction

For this option the benefit calculations specified in the "Slices" are used (i.e. accrual and salary).

The death in deferment pension benefit for this option is:

- WGMP, plus

- Spouse's Fraction, determined by the fields:

    - "Benefit Percentage"

    - "Offset Slices" – the percentage is applied to the benefits arising from Slices with a slice number lower than the "Offset Slices"

    - Benefit calculations in the Slices

Revaluation in deferment for the "Spouse's Fraction" is as for the Slices used for the calculation of the benefit.

For example if the "Offset Slices" is 3, the "Spouse's Fraction" is calculated as a "Benefit Percentage" of benefits from Slices 2 and 1.

GMP then 1/160 Revalued

For this option the benefit calculations specified in the Slices are not used.

The death in deferment pension benefit for this option is:

- WGMP, plus

- 1/160 pension, which equals 1/160 x salary and service determined by the fields:

    - "Salary" – select one of the 9 salary projections specified

    - "Start Date" and "Not Before Date" and the "Not After Date" for the "Offset Slices"

The 1/160th pension benefit would typically start at 6/4/1997 (or date joined pensionable service if later).

The "Pension Increases in Payment" rate needs to be specified for the 1/160th pension benefit. This benefit will be revalued in deferment at the deferred revaluation "Rate" specified on the "Financial" tab.

Max (GMP, 1/160) then Spouse's Fraction

For this option the benefit calculations (i.e. accrual and salary) specified in the Slices are used.

The death in deferment pension benefit for this option is the sum of:

- The greater of WGMP, and 1/160 x salary and service from the later of "Start Date" and "Not Before Date" up to the end date of the "Offset Slices" (specified on the "Financial" tab). (The comparison is made at the date of death if benefits are costed using the Valuation Basis or at the date of exit if costed using a Costing Table); and

- Spouse's Fraction, determined by the fields:
    - "Benefit Percentage"
    - "Offset Slices" – the Percentage is applied to benefits arising from Slices with a slice number lower than "Offset Slices"
    - Benefit calculations in the Slices

Typically the end date of the Slice specified as "Offset Slices" and start date for the Spouse's Fraction would be 6/4/1997.

Specify the "Increase in Payment" rate for the $1/160^{th}$ pension benefit (in excess of GMP).

Revaluation in deferment for the "Spouse's Fraction" is as for the Slices used for the calculation of the benefit.

The $1/160^{th}$ benefit can be revalued (or not) by this rate also by "ticking" (or "un-ticking") the "Revalue Pre 1997 1/160" field.

Max (GMP, 1/160) then 1/160 Revalued

For this option the benefit calculations specified in the Slices are not used. The death in deferment pension benefit for this option is the sum of:

- The greater of WGMP, and 1/160 x salary and service from the later of "Start Date" and "Not Before Date" up to the end date of the "Offset Slices" (specified on the "Financial" tab) (The comparison is made at the date of death if benefits are costed using the Valuation Basis or at the date of exit if costed using a Costing Table); and

- A "1/160 Revalued" pension, which equals 1/160 x salary and service determined by the fields:
    - "Salary" – select one of the 9 salary projections specified
    - "Start Date", "Not Before Date" and the end date for the slice indicated by "Offset Slice" – for determining service

Typically the end date of the Slice specified as "Offset Slices" would be 6/4/1997. The latter of this date (as a "Not Before Date") and "Start Date" would be the start date for the $1/160^{th}$ revalued pension benefit.

Specify the "Pension Increases in Payment" rate for the $1/160^{th}$ pension benefit.

The "1/160 Revalued" benefit will be revalued in deferment at the deferred revaluation "Rate" specified on the "Financial" tab. The $1/160^{th}$ benefit compared with the WGMP can be revalued (or not) by this rate also by "ticking" (or "un-ticking") the "Revalue Pre 1997 1/160" field.

Spouse's Fraction

For this option the death in deferment pension benefit is "Benefit Percentage" multiplied by the benefits calculated in the Slices.

The pension will be revalued according to the rate specified in the Slices and the deferred revaluation "Rate" on the "Financial" tab.

Summary

Option/Field	0	1	2	3	4	5
Percentage (M&F)	×	√	×	√	×	√
Salary	×	×	√	√	√	×
Start Date	×	×	√	√	√	×
Not Before Date (M&F)	×	×	√	√	√	×
Pension Increases in Payment	×	×	√	√	√	×
Revalue Pre 1997 1/160	×	×	×	√	√	×

3.2 Costing

The options for "Costing Method" are:

- Costing Table
- Valuation Basis

Please note that this field is not applicable to the death in deferment lump sum benefit.

Costing Table

Here the user can specify tables for the annuity part of the death in deferment liability.

These tables are specified in the "Costing Method" field.

Valuation Basis

This option would normally be used.

Using this option means that the death in deferment pension benefit is valued on the basis as specified for the category in the basis file.

3.3 Death in Deferment Lump Sum

There are 4 options for this benefit:

These options are described below:

None

No lump sum benefit.

Return of Contributions

This option will value standard data item "Member's Contributions" (ACW) as returned on death in deferment.

On the "Contributions" tab you can apply a rate of interest for this benefit ("ROC In Deferral Interest (% p.a.)"). Note however, that it will assume the data item includes interest to the valuation date and the "ROC In Service Interest (% p.a.)" on the "Contributions" tab will apply from the valuation date until exit.

Return of Contributions if no spouse

This option is the same as the above option (Return of Contributions) except that contributions are returned only if there is no spouse on death in deferment.

Whether or not there is a spouse is determined by the "Proportion Married" table specified on the "Demographic" tab. The relevant rate in the table at age at exit is applied (not age at death in deferment).

For example, if the proportion married table has entries of 90% throughout. There is therefore a rate of 10% of no spouse on death in deferment. The value of benefit under this option would therefore be 10% of that under the above option (Return of Contributions).
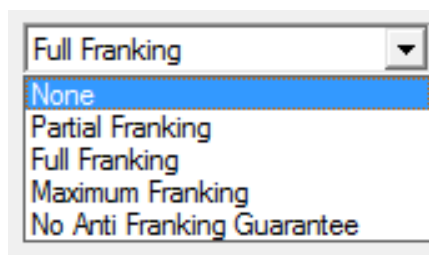
Multiple of Pension

Select this option for a lump sum payable on death in deferment of some multiple of the member's pension. Then enter in the following fields for males and females the multiple to apply.

Appendix A – Franking Code Examples

This field affects the pension amounts at SPA where NRA is before SPA.

There are five choices for members retiring before SPA:

The impact of each of these options is explained by the examples below.

Worked Examples:

Suppose that a male member retiring at 60 has a pension as follows:

Pension = £2,000

GMP at 60 = £1,000 (included in above figure)

GMP at 65 = £1,500

GMP revaluations between 60 and 65 are therefore £500 (£1,500 less £1,000).

Suppose further that the pension increase rate is 5% pa.

The add-on at SPA for the GMP revaluations between 60 and 65 under each of the options are as follows:

No Franking

All revaluation on the GMP is added to the pension at SPA
So, the pension at SPA is:

$2,000 \times 1.05^5 + 500 = 3,052.56$

Partial Franking

Revaluation on the GMP between retirement and SPA, less scheme increases granted on the GMP, is added at SPA.

So, the pension at SPA is:

$2,000 \times 1.05^5 + [500 - 1,000 \times (1.05^5 - 1)] = 2,552.56 + 223.72 = 2,776.28$

The item in [ ] is set to a minimum of zero.

Full Franking

All increases on pensions between retirement and SPA are franked against revaluation on the GMP.

So, the pension at SPA is:

$2,000 \times 1.05^5 + [500 - 2,000 \times (1.05^5 - 1)] = 2,552.56 + 0 = 2,552.56$

The item in [ ] is set to a minimum of zero.

Maximum Franking

This option differs from Full Franking only if you have an early retirement decrement in your basis. For the early retirements the calculation is as under option 4. For the normal retirement the calculation is as under option 2.

No Anti Franking Guarantee

No anti-franking guarantee is made at SPA. So, the pension at SPA:

$2,000 \times 1.05^5 = 2,552.56$

VARPRINTS:

Section 2600 shows the adjustments made to the deferred pension for the Franking Code. Cell 2616cF shows the "Anti-Franking Guarantee". Under each of the options above the amount shown here would be:

Franking Code	Anti-Franking Guarantee
0	500
1	223.72
2	0
3	0
4	0