



In Focus

Valuing Cash Benefits

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1 Scope

- 1.1.1 Some schemes will pay cash benefits on retirement or death in addition to pension benefits or by commuting pension for cash amounts. This note sets out how to value these benefits in SuperVal.
- 1.1.2 This document is based on version 9.25 of SuperVal. Note also that those users with Client Code 3 have more flexibility in valuing cash benefits than those with Client Code 0. Set-ups are considered for both client codes in this document.
- 1.1.3 This document does not include specific details of how to set up/value cash benefits for PPF runs and Capped non-PPF runs. Users should refer to the Help Documents “PPF S179 (Levy) Valuations” and “Non PPF Capped Runs” for details.

2 Overview

2.1 Actives

- 2.1.1 Post-Retirement cash benefits for active members can be made payable on the following events:
 - Normal & Early Retirement
 - Ill Health Retirement
 - Deferred Normal Retirement
- 2.1.2 The cash benefit can be provided EITHER on top of pension benefits OR through commuting the pension.
- 2.1.3 Added functionality for Client Code 3 users: A combination of BOTH cash on top AND cash commuted can be specified if required.
- 2.1.4 There is flexibility available for specifying which pension is commuted for cash. Further commutation factors can be specified for each pension increase rate.
- 2.1.5 Pre-Retirement cash benefits are also considered in this document.

2.2 Deferreds

- 2.2.1 Post-Retirement cash benefits for Deferreds can be made payable on:
 - Normal & Early Retirement
- 2.2.2 As with actives, the retirement cash can be payable EITHER on top of pension benefits OR provided through commuting the pension.
- 2.2.3 Added functionality for Client Code 3 users: A combination of BOTH cash on top AND cash commuted can be specified if required.
- 2.2.4 There is, however, no flexibility (as yet) in determining the pension that is commuted for cash and there is only one set of cash commutation factors (CCFs) that can be used.
- 2.2.5 Added functionality for Client Code 3 users: There is the option of commuting main or special pensions first or applying the pro-rata method, and also defining two sets of CCFs.
- 2.2.6 Pre-Retirement cash benefits are also considered in this document.

3 Actives

3.1 (Normal/Early/Deferred) Retirement Cash

The Retirement Cash parameters can be specified on the Ret Cash and Ret COT tabs:

3.1.1 Ret Cash

The screenshot shows the 'Ret Cash' tab in a software application. The interface includes a menu bar at the top with options like File, Data, Goto, and Help. Below the menu bar is a tabbed interface with various tabs, including 'Ret Cash' which is currently selected. The main area is divided into two sections: 'Retirement Cash Computation' and 'Commutation Tables'. The 'Retirement Cash Computation' section contains fields for 'Cash Parameter Set', 'Benefit Basis' (set to '25% Pension'), 'Accrual Rate' (set to '3.75 %'), 'Cash Multiple', 'Salary' (set to 'FPS - Post37'), 'Service' (set to 'Scheme Membership'), 'Cash Percentage' (set to '1 %'), 'Commutation Priority' (set to 'Pro Rata'), and checkboxes for 'Separate A Day Cash Factors for each Pension Increase', 'Treat Independent Slice Cash as Cash on Top', and 'Ignore GMP in Split'. The 'Commutation Tables' section contains fields for 'Male Commutation Tables Parameter Set', 'Female Commutation Tables Parameter Set', 'Calculate Male Commutation Factors based on Valuation Basis', 'Calculate Female Commutation Factors based on Valuation Basis', 'Male % of Valuation Basis Factor' (set to '100 %'), 'Female % of Valuation Basis Factor' (set to '100 %'), and lists for 'Male' and 'Female' with columns for 'Main', 'Special', 'Perinc3', and 'Perinc4', all set to '11 at all ages'. There are also checkboxes for 'Linearly Interpolate Male Commutation Tables for mid-point Est values' and 'Linearly Interpolate Female Commutation Tables for mid-point Est values'. At the bottom, there are buttons for 'Add/Edit Retirement Cash' and 'Add/Edit Commutation Tables', and a status bar at the very bottom with 'A - NRA 65 «ACTIVES TRAINING BASIS»' and 'Save As', 'Save', 'Quit', and 'Help' buttons.

3.1.2 Ret COT

The screenshot shows the 'Ret COT' tab in the same software application. The interface is similar to the 'Ret Cash' tab, but the 'Retirement Cash on Top' section is active. This section contains fields for 'Cash on Top Parameter Set', 'Benefit Basis' (set to '25% Pension'), 'Accrual Rate' (set to '3.75 %'), 'Cash Multiple', 'Salary' (set to 'FPS - Post37'), 'Service' (set to 'Scheme Membership'), 'Cash Percentage' (set to '1 %'), 'Male Retirement Factors Parameter Set', 'Female Retirement Factors Parameter Set', and lists for 'Male' and 'Female' with columns for 'COT ERF1 (Revaluation 1 & 3)', 'COT ERF1 (Revaluation 2)', 'COT ERF2 (Revaluation 1 & 3)', and 'COT ERF2 (Revaluation 2)'. There are also checkboxes for 'Linearly Interpolate Male Retirement Factors for mid-point Est values' and 'Linearly Interpolate Female Retirement Factors for mid-point Est values'. At the bottom, there are buttons for 'Add/Edit Retirement Cash' and 'Add/Edit Retirement Factors', and a status bar at the very bottom with 'A - NRA 65 «ACTIVES TRAINING BASIS»' and 'Save As', 'Save', 'Quit', and 'Help' buttons.

3.2 III Health Retirement Cash

These parameters are specified on the IH Cash tab. The IH Cash tab is very similar to the Ret Cash tab (the fields are the same except for the additional fields “Include Prospective Service?” and “Male/Female Reduction Factors”):

3.2.1 IH Cash

The screenshot shows the 'IH Cash' tab in a retirement planning application. The interface includes a menu bar (File, Data, Get, Help) and a toolbar with various retirement options. The main area is divided into two sections: 'IH-Health Cash Computation' and 'Commutation Tables'.

IH-Health Cash Computation:

- Benefit Base:** 2.25 x Pension
- Accrual Rate:** 0.75 %
- Cash Multiple:** [Field]
- Cash Percentage:** [Field] %
- Commutation Priority:** Priority
- Include Prospective Service:** [Checkbox]
- Ignore GHP in Split:** [Checkbox]

Commutation Tables:

- Male I-Health Commutation Tables Parameter Set:** [Field]
- Female I-Health Commutation Tables Parameter Set:** [Field]
- Calculate Male Commutation Factors based on Valuation Basis:** [Checkbox]
- Calculate Female Commutation Factors based on Valuation Basis:** [Checkbox]
- Male % of Valuation Basis Factor:** 100 %
- Female % of Valuation Basis Factor:** 100 %
- Male Man:** [Field]
- Female Man:** [Field]
- Male Special:** [Field]
- Female Special:** [Field]
- Male Peninc3:** [Field]
- Female Peninc3:** [Field]
- Male Peninc4:** [Field]
- Female Peninc4:** [Field]
- Unlinearly Interpolate Male Commutation Tables for mid-point Est values:** [Checkbox]
- Unlinearly Interpolate Female Commutation Tables for mid-point Est values:** [Checkbox]

Buttons: Add/Edit Retirement Cash, Save As, Save, Quit, Help.

3.2.2 IH COT

The screenshot shows the 'IH COT' tab in a retirement planning application. The interface includes a menu bar (File, Data, Get, Help) and a toolbar with various retirement options. The main area is divided into two sections: 'IH-Health Cash on Top' and 'IH COT'.

IH-Health Cash on Top:

- Benefit Base:** 1 x Pension
- Accrual Rate:** 0.75 %
- Cash Multiple:** [Field]
- Cash Percentage:** [Field] %
- Include Prospective Service:** [Checkbox]

IH COT:

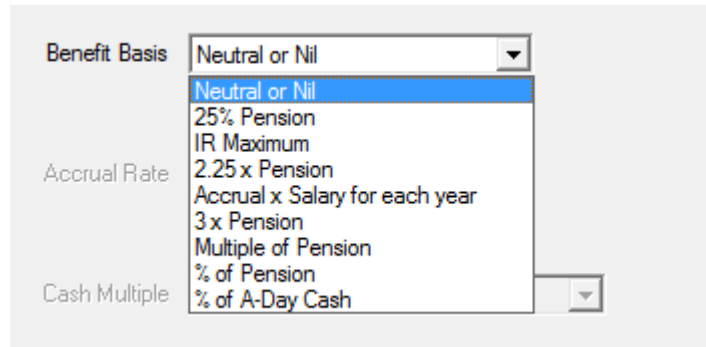
- Male Reduction Factors:** [Field]
- Female Reduction Factors:** [Field]
- Unlinearly Interpolate Reduction Factors for mid-point Est values:** [Checkbox]

Buttons: Add/Edit Retirement Cash, Save As, Save, Quit, Help.

3.3 Parameters

Options

There are 8 cash benefit “Options” or “Types” for active members:



The screenshot shows a software interface with three labels on the left: 'Benefit Basis', 'Accrual Rate', and 'Cash Multiple'. A dropdown menu is open, displaying a list of options. The first option, 'Neutral or Nil', is highlighted in blue. The other options in the list are '25% Pension', 'IR Maximum', '2.25 x Pension', 'Accrual x Salary for each year', '3 x Pension', 'Multiple of Pension', '% of Pension', and '% of A-Day Cash'. There is a small arrow icon at the bottom right of the dropdown list.

- 3.3.1 Where “1 - Neutral or Nil” is selected, no retirement cash benefit will be valued.
- 3.3.2 25% Pension, 2.25 x Pension and 3 x Pension can still be used, but have effectively been superseded by Multiple of Pension and % of Pension (which are more flexible). The set-ups for these two options are described below.
- 3.3.3 IR Maximum can also still be selected, but is rarely chosen by SuperVal users.
- 3.3.4 Accrual x Salary for each year unlocks 3 fields:

- **Accrual Rate**

Type in require accrual rate e.g. 3/80ths = 3.75%

- **Salary**

Select one of the salary projections (1 to 9) specified on the “Salary” tab to be used for retirement cash calculation.

- **Service**

There are two options to choose from:

M – Scheme Membership

S – Company Service

Where option “M” is selected SuperVal will calculate service using standard date data item “DJF – DoJ Scheme”. Therefore please ensure that “DJF” is specified in your data format & in your data for this option.

Where option “S” is selected SuperVal will calculate service using standard data date item “DJS – DoJ Company”. Therefore please ensure that “DJS” is specified in your data format & in your data for this option.

NB: If there is no Slice 1 then there will be no future service cash calculated.

Maximum Service

Note that the setting for the service “Maximum” on the “Retirement” tab will apply to the “Service” calculation for the 3n80ths cash benefit.

Added Years

Added years will not be included in the service calculation for the “Accrual x Salary for each year” option unless the data items “DJF” or “DJS” are backdated as appropriate.

3.3.5 Multiple of Pension or % of Pension

If the User has selected Retirement Cash "Multiple of Pension", enter the multiple that applies.

If the User has selected Retirement Cash "% of Pension", enter the % that applies.

Users can also specify member-specific multiples/percentages (within the CSV file) and select the relevant data item for the “Cash Multiple” or “Cash Percentage” field.

3.3.6 % of A Day Cash is covered in detail in the Infocus document: “A Day Cash”.

Include Prospective Cash?

3.3.7 This field appears for *Ill Health Retirement Cash* benefits only.

3.3.8 By answering “Yes” the prospective (exit to NRD) service multiplied by the "Future Service Fraction" will be included in the cash calculation.

Reduction Factors (Male & Female)?

3.3.9 These fields appear for *Ill Health Retirement Cash* benefits only.

On Top or Commuted?

3.3.10 Specify whether the cash benefit is “Cash On Top” payable on top of your pension benefits or “Commutation” payable through commutation of the retirement pension.

3.3.11 The commutation of the pension for the cash benefit is determined by the settings for the fields “Priority” and “Commutation Tables”.

[Added functionality for Client Code 3 users: A combination of BOTH cash on top AND cash commuted can be specified, so this field is not included in CC3.]

Priority

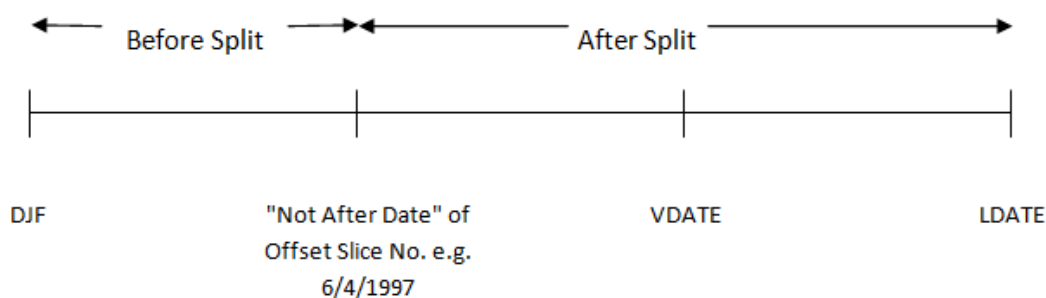
3.3.12 This is used where the pension is commuted for cash. The user can specify a priority order for commuting pension for cash.

3.3.13 The options are:

- A – After Split
- B – Before Split
- N – No Priority
- P – Pro Rata

3.3.14 The “Split” in options "A" and "B" refer to the Slice "Not After Date" for the “Offset Slice No.” specified on the "Financial" tab.

3.3.15 Typically an active member will have a service timeline as shown in the following diagram:



After Split

3.3.16 In the above timeline priority option “A – After Split” would mean that the pension accruing post 6/4/1997 will be commuted for cash first.

Before Split

3.3.17 In the above timeline priority option “B – Before Split” would mean that the pension accruing pre 6/4/1997 will be commuted for cash first.

Note that for either of the time periods “After Split” or “Before Split” one or more of the pension increase rates in payment Main, Special, PenInc3 or PenInc4 may apply. (The pension increase rates Main, Special, PenInc3 and PenInc4 are indicated on the Slices.)

Within the “After Split” or “Before Split” time period the cash commutation order of the pension is:

- Special
- Main
- PenInc3
- PenInc4

No Priority

3.3.18 If priority option “N – None” is selected then the cash commutation order is simply by the pension increase rate order ignoring time period. In other words:

- Special
- Main
- PenInc3
- PenInc4

This is regardless of when these pensions have accrued.

Pro Rata

- 3.3.19 Under this option the pension will simply be commuted for cash in proportion ignoring pension increase rate and timing. **Note that SuperVal calculates the split between pension and cash by pro-rating the pension commuted.**

See Appendix for a worked example illustrating how the Pro Rata method is calculated.

Ignore GMP in Split?

- 3.3.20 This enables the split between Pre 97 and Post 97 benefit to be done in the correct proportions.

If "Y-Yes" is selected then SuperVal will not take off the GMP from the Pre 97 benefit before calculating the proportions.

Please note if "Y - Yes" is chosen then GMP may be commuted depending on the options chosen and the size of the GMP, but will still pay the whole of the GMP at SPA. This may overstate the liability.

See Appendix for a worked example illustrating how the entry in this field affects the calculation.

Commutation Tables

- 3.3.21 Specify the table codes that contain the cash commutation factors for males and females. These are typically tables with 3 decimal places i.e. "GX" type rate tables. (Note that you should use mid-year values for ages below NRA – because SuperVal assumes mid-year exits, and does NOT interpolate).

- 3.3.22 The factors may vary by pension increase rate. Therefore a different table can be specified for Main, Special, PenInc3 or PenInc4 pension increase rates. If the Scheme only uses one set of cash commutation factors, specify this table for **all 4** of the pension increase rates.

[Ind Slices: Added Functionality for Client Code 3 users]

Cash benefits can also be defined in the Ind Slices Tab within each slice for CC3 users. By setting the start age and end age as the same (either by specifying the ages on the slice or using a member-specific data item), SuperVal will value the benefit as cash.]

- 3.3.23 Allowing for Maximum Pension Commencement Lump Sum (PCLS)

SuperVal does not currently give users the option to use the maximum PCLS, and so it needs to be valued via the “% of Pension” option. In the majority of cases, the proportion will vary by member, and so you will need to calculate it outside of SuperVal and then use the cash multiple field to define it as a member-specific item.

VARPRINT

3.3.24 The VARPRINT shows the calculation of the Normal & Early Retirement Cash and it is shown in section 1400. Where the Retirement Pension is commuted for Cash, the post commutation pension is shown in section 1600. For Leaving Service Cash this is shown in section 2510.

Pre-Retirement Cash Benefits

3.3.25 Cash benefits payable on the death of a member prior to retirement (either on death-in-service (DIS) or death-in-deferment (DID)) can be valued in SuperVal.

For details of valuing DIS cash benefits, please refer to the In Focus document: “Valuing DIS Benefits in SuperVal”.

DID cash benefits

3.3.26 DID benefits can be set up on the Leaving service tab:

The screenshot displays the 'Leaving' tab in the SuperVal software. The top navigation bar includes tabs for 'Alt Slices', 'Membership', 'Ret Pension', 'Ret Cash', 'Late Retirement', 'Death Pen', 'Death Cash', 'IH Pension', 'IH Cash', 'PHI', and 'Leaving'. The 'Leaving' tab is active.

Below the navigation bar, there are several sections for configuring benefits:

- NNS Benefit Guarantee:** Includes a checkbox for 'Guarantee Leaving Benefit of NNS' and a field for 'NNS Maximum Service' set to 99 years.
- Alternate Leaving Service NRA:** Includes a dropdown for 'Use Alternate NRA for Leaving/Accrued' set to 'DAB Method only', and fields for 'Male Deferral Age' (60 years) and 'Female Deferral Age' (55 years).
- Death in Deferment Pension:** This section is divided into Male and Female columns. Each column has fields for 'Spouse's Fraction' (dropdown), 'Benefit Basis' (dropdown), 'Benefit Percentage' (text input, set to 50%), 'Start Date' (dropdown, set to 'DoJ Scheme'), 'Male Not Before Date' and 'Female Not Before Date' (text inputs), 'Pension Increases in Payment' (dropdown, set to 'Main Pension'), 'Costing Method' (dropdown, set to 'Valuation Basis'), and 'Costing Table' (text input).
- Death in Deferment Lump Sum:** This section is also divided into Male and Female columns. Each column has fields for 'Benefit Basis' (dropdown, set to 'None') and 'Benefit Multiple' (text input, set to 0).

At the bottom of the window, there is a status bar showing 'S ALL DECREMENTS <ACTIVES REG S - V>' and buttons for 'Save As', 'Save', 'Quit', and 'Help'.

3.3.27 Benefit Basis (Males/Females)

There are four options:

The screenshot shows a software window titled "Death in Deferment Lump Sum". Inside, there is a label "Male Benefit Basis" next to a dropdown menu. The dropdown menu is open, showing four options: "None" (highlighted in blue), "Return of Contributions", "Return of Contributions if no spouse", and "Multiple of Pension". To the left of the dropdown, the text "Male Multiple" is visible.

0 – None

Self-explanatory

1 – Return of Contributions

The benefit includes a return of past contributions, the value is in the "ACW" standard data item, and future contributions as specified in the Contributions tab. It is assumed "ACW" includes interest to the valuation date (if applicable). The "Interest Rate on Service" on the "Contributions" tab will apply to withdrawal. The "Interest Rate in Deferment" on the "Contributions" tab will apply from withdrawal to death in deferment.

2 – Return of Contributions if No Spouse

This is same as option 1 except contributions are returned only if there is no spouse on death in deferment. The benefit value is the product of that of option 1 and (1 - Proportion Married).

4 – Multiple of Pension

Where a cash benefit is payable on DID which is a multiple of the Deferred Retirement Pension, this option should be used.

4 Deferreds

4.1 Ret Cash and Ret COT Tabs

Ret Cash

The screenshot shows the 'Ret Cash' tab in a software application. The interface includes a menu bar (File, Data, Setup, Help) and a toolbar with various icons. The main area is divided into several sections: 'Retirement Cash Computation' with fields for Cash Parameter Set, Benefit Basis, Cash Multiple, Cash Indicator, Cash Percentage, and Computation Priority; 'Commutation Tables' with sections for Male and Female tables, including Valuation Basis Factor, Male/Female Plan, Special, Period3, and Period4, and checkboxes for interpolation; and 'Cash Cap' with fields for Cash Cap Amount, % of Cash Cap Amount, Pension Rule Override, Complete Years Only Override, and Exit Rounding Override. At the bottom, there are buttons for 'Add/Edit Retirement Cash', 'Add/Edit Commutation Tables', and 'Edit Scheme Parameters', along with 'Save As', 'Save', 'Quit', and 'Help' buttons.

Ret COT

The screenshot shows the 'Ret COT' tab in the same software application. The interface is similar to the 'Ret Cash' tab but with different fields. The 'Retirement Cash on Top' section includes fields for Cash Parameter Set, Benefit Basis, Cash Multiple, Cash Data Field, and Cash Percentage. The 'Male Retirement Factors' and 'Female Retirement Factors' sections each have a 'Parameter Set' dropdown and two input fields for 'Male EPF1', 'Male EPF2' and 'Female EPF1', 'Female EPF2'. There are also checkboxes for 'Linearly Interpolate Male/Female Retirement Factors for midpoint Exit values'. At the bottom, there are buttons for 'Add/Edit Retirement Cash', 'Add/Edit Retirement Factors', and 'Edit Scheme Parameters', along with 'Save As', 'Save', 'Quit', and 'Help' buttons.

4.1.1 The options in the tabs are:

- Cash Indicator
- Multiple of Pension
- % of Pension

The fields are described below.

Cash Indicator

- 4.1.2 Select from the options as to whether the retirement cash benefit is payable "On Top" of pension or provided through "Commutation" of the pension.

[Added functionality for Client Code 3 users: A combination of BOTH cash on top AND cash commuted can be specified, so this field is not included in CC3.]

Multiple

- 4.1.3 The cash benefit can be a multiple of the retirement pension. Note that this means the cash amount will have been subject to the same deferred revaluation (excess and GMP) as the pension up to retirement age.

Percentage

- 4.1.4 Alternatively, the cash benefit can be a % of the retirement pension multiplied by the relevant Commutation Table factor. Again note that the cash will then be subject to the same deferred revaluation as the pension.

[Added functionality for Client Code 3 users: The Cash Multiple or Percentage amount may be input as a member specific data item (within the CSV file) using the relevant FIELD input.]

4.2 Commutation Table (Males/Females)

- 4.2.1 Select the cash commutation factor tables that are applicable. These tables will be used if the cash is provided through commuting the pension or if using the % pension benefit option.
- 4.2.2 Note that only ONE set of cash factor tables can be specified. Furthermore, no "Priority" setting can be specified for Deferreds. Cash commutation for Deferreds will behave like the actives "Priority" setting "No Priority" (in other words, by pension increase rate). This order is:

- Special increasing pension
- Main increasing pension
- Pen Inc 3
- Pen Inc 4

4.2.3 It is therefore prudent with Deferreds where more than one pension increase rate is being used to set the lowest pension increase rate as Special. This is to ensure that the "cheaper" pension is used up for commutation for cash first. See Appendix for a worked example

[Added functionality for Client Code 3 users: For CC3 users, FOUR sets of CCFs can be defined (for Main, Special, Peninc3 & Peninc4 pensions), and Commutation Priority can also be specified.]

4.3 PUPs

PUPs	PUP 1	PUP 2	PUP 3	PUP 4	PUP 5	PUP 6
PUP Description	PUP 1	PUP 2	PUP 3	PUP 4	PUP 5	PUP 6
{ PUP Payment Parameters }						
PUP Amount	qPUP3	qPUP0	qPUP1	qPUP2	qPUP8	qPUPZ
Revaluation Rate Override			Deferreds RevRate (4) <yc 1-5% csy>	Deferreds RevRate <0 >		
Spouses DAR Override					80	qSPOUSEPERC
Override % for DBR Pension					qSPOUSEPERC	75
Complete Years Only Override		No				No
NRA Exits Rounding Override	Nearest Months	Nearest Months	Nearest Months	Nearest Months	Nearest Months	Nearest Months
Start Date	31/12/1990		01/01/1990		01/01/1990	
Finish Date	Valuation Date		Valuation Date		Normal Retirement Date	
PUP Adjustment Factor	1	1	1	1	1	1
{ PUP Indicators }						
Ignore for Cash	Yes	No	No	Yes	No	No
Ignore for DBR	No	No	No	Yes	No	No
ERF Indicator	Use Barber Start and End Dates	ERF1	Use Barber Start and End Dates	ERF2	Use Barber Start and End Dates	ERF2
Pension Increases in Payment	Main Pension	Pension Increase 4	Pension Increase 3	Pension Increase 3	Pension Increase 3	Pension Increase 4
Include in Underpin	Exclude	Exclude	Exclude	Exclude	Exclude	Exclude
{ PUP PPF Parameters }						
Male PPF NRA (Levy Valuations)	60	60	60	60	60	60
Female PPF NRA (Levy Valuations)	60	60	60	60	60	60
PPF Service Period	Pre 97	97 to 09	Post 09	Pre 97	Post 09	97 to 09

Add PUP Insert PUP Edit PUP Delete PUP

S cat S <REGRESSION-DEFERREDS_CATS-V> Save As Save Quit Help

4.3.1 Ensure the "Ignore for Cash" options in the PUPs are set accordingly. These can be useful if any pensions are non-commutable, or if Cash on Top is only provided on certain pensions

4.4 Using Cash Cap

4.4.1 If the cash data item for each member is available then you can use the "Cash Cap" region in the Retirement Cash tab to value the benefit:

Cash Cap Amount	qPUPZ	% of Cash Cap Amount	95 %
Revaluation Rate Override	Deferreds RevRate (3)		5
Complete Years Only Override	Yes	Exit Rounding Override	Nearest Months
ERF Indicator	ERF2	Adjustment Factor	1

4.4.2 Using this section gives complete control over the amount of retirement cash. The following parameters that can be applied to the cash data item:

- Revaluation Rate
- Complete Years Only (early retirement exits)
- (NRA) Exit Rounding
- % Data Item
- Early Retirement Reduction Factor Table (ERF1 or ERF2)
- Adjustment Factor

4.4.3 Note, however, that this is a Cash Cap – i.e. the maximum amount each member can take. So, to ensure that this data item is valued, the formula on the "Benefits" screen needs to be set to a rate that will exceed the cash benefit specified in this "Cash Cap" column for every member.

Ind PUPs: Added Functionality for Client Code 3 users

4.4.4 Cash benefits can also be defined in the Ind PUPs Tab within each Ind PUP for CC3 users. By setting the start age and end age as the same (either by specifying the ages on the PUP or using a member-specific data item), SuperVal will value the benefit as cash].

4.5 Pre Retirement Cash Benefits

4.5.1 Death in Deferment cash benefits can be specified on the “Death” tab:

The screenshot shows a software window with a tabbed interface. The 'Death' tab is selected, indicated by a green dot and text. The window title bar shows several tabs: Financial, Legislation, PPF/CAP, Mortality, Demographic, PUPs, Membership, Ret Pension, Ret Cash, Death (selected), and Underpin. The main content area is divided into two sections. The top section, 'Death in Deferment Pension', contains a label 'Spouse's Reversion Death Before Retirement' followed by a text box containing '50' and a '%' symbol. The bottom section, 'Death in Deferment Cash', contains a label 'Death Cash Multiple' followed by a text box containing '0'. Below this is an 'Add/Compare' button with a dropdown arrow. Further down are two rows of controls. The first row has a 'Conts Data Item' dropdown and a 'Conts Interest Rate' dropdown. The second row has a 'Plus Conts Data Item' dropdown and a 'Plus Conts Interest Rate' dropdown. At the bottom right of the main area is an 'Edit Scheme Financials' button. The status bar at the very bottom shows 'S cat S <REGRESSION-DEFERRED-S_CATS-V>' on the left and 'Save As', 'Save', 'Quit', and 'Help' buttons on the right.

Death Cash Multiple

4.5.2 If a lump sum multiple of Deferred Pension is payable on DID, enter the multiple applicable i.e. enter 5 for 5 x Pension.

Conts Data Item (Plus Conts Data Item)

- 4.5.3 If a return of contributions is payable on DID, then choose the data item for this field from the data .CSV file. Up to two different contribution amounts can be selected (two separate fields)

Conts Interest Rate (Plus Conts Interest Rate)

- 4.5.4 If a return of contributions is payable on DID (specified in the previous field), input the interest rate to apply to the amount (from valuation date to decrement date). Since two separate contribution items can be specified, two separate interest rates can also be specified.

Add/Compare

- 4.5.5 If both “Death Cash Multiple” and (one or more) “Conts Data Item(s)” are specified, SuperVal can either value all benefits (i.e. Add them up) or take the greater of the “Death Cash Multiple” and the (sum of the) “Conts Data Item(s)” (i.e. Compare them). Select the appropriate option.

5 Appendix

5.1 Actives – Pro Rata Example

Cash=25% of pension – Cash Commutation on Retirement

Data:

- Member has 10 years' Past Service (PS) and 10 years' potential Future Service (FS) to assumed retirement age.
- Benefit is accrued uniformly over whole service period, but pension increases in respect of FS are higher than those in respect of PS.
- Cash Commutation Factor for PS= 10.
Cash Commutation Factor for FS=15.
- Assume total projected pension benefit = £20,000.
- Assume 25% of pension is commuted.

SuperVal will commute pension as follows:

- Total Pension commuted = 25% of £20,000 = £5,000
- This is split in proportion to the pension, so 50% goes to PS and 50% to FS
- PS: Pen comm = £2,500. Cash = £2,500 x 10 = £25,000
- FS: Pen comm = £2,500. Cash = £2,500 x 15 = £37,500
- Total cash = £62,500

Note 1: SuperVal includes any ERFs or LRFs when working out the proportion of pension commuted.

Note 2: The position is skewed if there is GMP, and "Ignore GMP in split?" is set to "No". The pension commuted is the same, but it's assumed only to be taken from excess over GMP pension.

For example, if GMP **at retirement** was £4,000 in the above example, then total excess is £16,000 (£6,000 PS and £10,000 FS). So:

- PS: Pen comm = £5,000 x 6/16 = £1,875. Cash = £1,875 x 10 = £18,750
- FS: Pen comm = £5,000 x 10/16 = £3,125. Cash = £3,125 x 15 = £47,875
- Total cash = £65,625

(If $NRA < SPA$, SuperVal will also check that there is sufficient residual benefit at SPA to cover GMP - and limit the retirement cash if necessary.)

Note 3: Only member's pension will be commuted. The spouse's DAR pension is valued based on the pre-commutation pension amounts.

Cash=2.25xPension

Data:

- Member has 10 years' Past Service (PS) and 10 years' potential Future Service (FS) to assumed retirement age.
- Benefit is accrued uniformly over whole service period, but pension increases in respect of FS are higher than those in respect of PS.
- Cash Commutation Factor for PS= 10.
Cash Commutation Factor for FS=15.
- Assume total projected pension benefit = £20,000.
- Assume 2.25 x pension is taken as cash.

SuperVal²¹ will commute pension as follows:

- Total cash = 2.25 x 20,000 = £45,000.
- As noted earlier, **SuperVal calculates the split between pension and cash by pro-rating the pension commuted**. Therefore we need to calculate the proportion (P) commuted which will lead to a lump sum of £45,000:
 - $P \times (10,000 \times 10 + 10,000 \times 15) = 45,000$.
 - Therefore $P = 18\%$
 - So PS pension = $0.82 \times 10,000 = £8,200$, and PS cash = $0.18 \times 10,000 \times 10 = 18,000$
 - And FS pension = $0.82 \times 10,000 = £8,200$, and FS cash = $0.18 \times 10,000 \times 15 = 27,000$

Note 1: SuperVal²¹ includes any ERFs or LRFs when working out the proportion of pension commuted.

Note 2: The position is skewed if there is GMP, and "Ignore GMP in split?" is set to "No". The total cash is the same, but it's assumed only to be taken from excess over GMP pension. Therefore P will end up higher. For example, if GMP **at retirement** was £4,000 in the above example, then then total excess is £16,000 (£6,000 PS and £10,000 FS).
 $P \times (6,000 \times 10 + 10,000 \times 15) = 45,000$, and so $P = 21.43\%$.

- So PS pension = $0.7857 \times 6,000 + 4,000 = £8,712$, and PS cash = $0.2143 \times 6,000 \times 10 = £12,858$
- And FS pension = £7,857, and FS cash = $0.2143 \times 10,000 \times 15 = £32,145$
- (If $NRA < SPA$, SuperVal will also check that there is sufficient residual benefit at SPA to cover GMP - and limit the retirement cash if necessary.)

Note 3: Only member's pension will be commuted. The spouse's DAR pension is valued based on the pre-commutation pension amounts.

Cash=25% example showing affect of "Ignore Split"

The tables below illustrate the resulting cash if other options are chosen for spreading the cash.

Note: In the examples below, "Split date" is set as VDATE

"Before split" - and "No Priority" (GMP = £4,000)						
	Pension increases	Pre commutation pension	Pension commuted	Commutation factor	Cash	Post commutation pension
GMP		4,000				4,000
PS (Excess)	Special	6,000	5,000	10	50,000	1,000
FS	Main	10,000		15	0	10,000
Total		20,000	5,000		50,000	15,000

Because PS has "Special" increases, it is commuted first if there is "No Priority"

"Before split" - and "No Priority" (GMP = £6,000)						
	Pension increases	Pre commutation pension	Pension commuted	Commutation factor	Cash	Post commutation pension
GMP		6,000				6,000
PS (Excess)	Special	4,000	4,000	10	40,000	0
FS	Main	10,000	1,000	15	15,000	9,000
Total		20,000	5,000		55,000	15,000

There is not enough PS excess pension to cover all the pension commuted, so some FS pension is commuted as well

"After split"						
	Pension increases	Pre commutation pension	Pension commuted	Commutation factor	Cash	Post commutation pension
GMP		4,000				4,000
PS (Excess)	Special	6,000	0	10	0	6,000
FS	Main	10,000	5,000	15	75,000	5,000
Total		20,000	5,000		75,000	15,000

5.2 Deferreds

Cash Commutation of 25% at Retirement

Data:

- Male Member has Total Projected Deferred Pension of £1,000 p.a. at 65
- Benefit is split: £600 GMP, £200 Pre'97 XS, £200 Post '97 Pension
- Cash Commutation assumption: 25% of Pension at 65 commuted for cash
- CCF to apply at 65 = 16

Question:

Calculate the cash amount & split of post-commutation pension at 65 if:

- a) Pre'97 XS & Post '97 Pension are both valued with "Special" increases".
- b) Pre'97 XS valued with "Special" increases, Post '97 Pension valued with "Main" increases".

Solution:

[Note: This solution relates to Client Code 0 users only. There is more flexibility in the set-up for Client Code 3 users]

- a) SuperVal will commute pension as follows:

- Total Cash = $25\% \times 1,000 \times 16 = £4,000$
- Total Pension Commuted = $25\% \times 1000 = £250$
- Total Post-Commutation Pension = £750
- GMP will not be commuted, and since both pre'97 XS & post'97 pensions have been set up with the same increases, they will be reduced proportionally by the same amount.
- Hence, split of Post-Commutation Pension is as follows:
 - GMP = £600
 - Pre'97 XS = £75
 - Post '97 Pension = £75

- b) SuperVal will commute pension as follows:

- Total Cash = £4,000, Total Pension Commuted = £250, Total Post-Comm Pension = £750
- GMP not commuted. Since pre'97 XS has been set-up with "Special" increases and post '97 Pension set-up with "Main" increases", it will commute the "Special" pension first.
- Hence, split of Post-Commutation Pension is as follows:
 - GMP = £600
 - Pre'97 XS = £0
 - Post '97 Pension = £150