Transfer Values for Deferreds in SuperVal

September 2021

CONTENTS

1. INTRODUCTION

Introduction

SuperVal now allows the Users to value Transfer Values for Deferreds. These calculations will be based on two decrements:

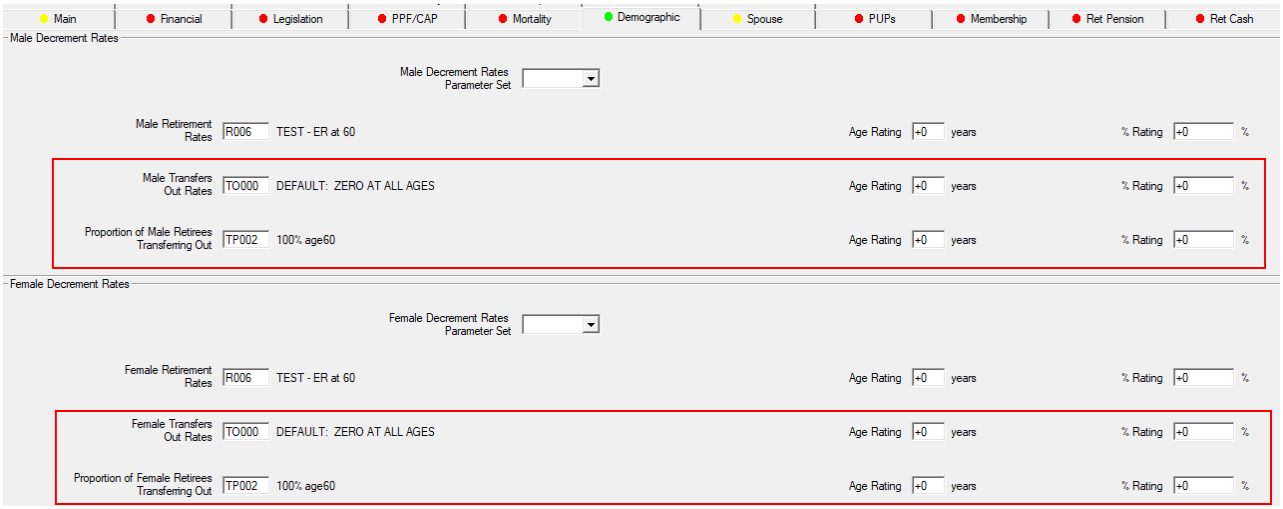
- Transfer Out Rates (TOxxx) – i.e. rate of transfers at all ages up to and including Normal Retirement Age. Two-dimensional Retirement Age related Transfer Out Rates (TRxxx) are also available if you are valuing different Retirement Ages (within a Category or within a Scheme).
- Proportion of Retirees Transferring Out (TPxxx) – i.e. proportion of Early Retirements or Normal Retirements who opt to take Transfer Values.
- Both can be used in a single category.

2. TRANSFER VALUES FOR DEFERREDS IN SUPERVAL

2.1 New Fields for Transfer Values

2.1.1 New Fields under Demographic

Select the TOxxx. TRxxx and TPxxx tables together with any Age Rating / % Rating.



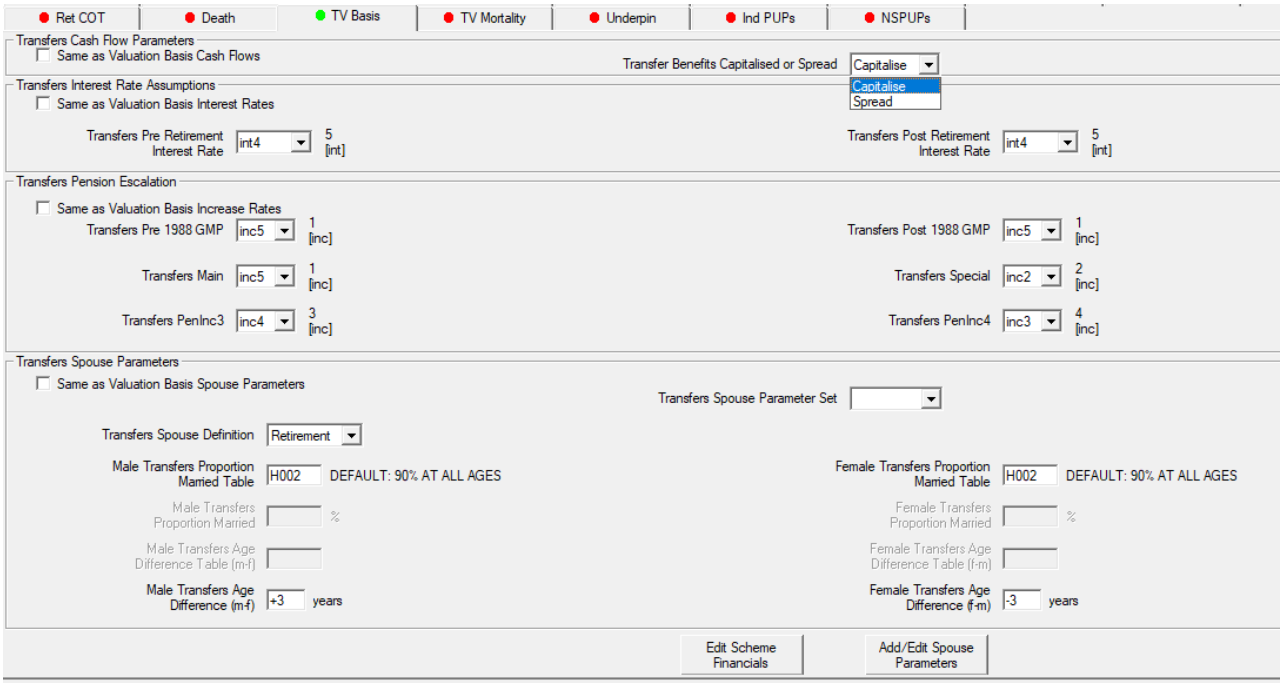
2.1.2 New Fields under New Tab "TV Basis"

The User can select the following Transfer Value Basis assumptions:

- Transfer Benefits are to be capitalised at the date of transfer or to be spread from the Normal Retirement Date / Date of Death
- Pre and Post Retirement Interest Rates
- Pension Escalation Rates
- Spouses' Parameters

All of these can be set (dynamically) to the same values as the Valuation Basis assumptions via the tick-boxes on the left.

As we currently do not hold individual PUPs information (the PUPs are aggregated by Pension Increase) we are unable to unwind the revaluations without recalculating all the benefits. Therefore, Revaluation rates used for Transfer Values are the same values as the Valuation Basis. To approximately reflect any difference between Valuation Basis and Transfer Value revaluations, a (single) adjustment can be made to the pre-retirement interest rate assumption.



2.1.3 New Fields under New Tab "TV Mortality"

The User can select Transfer Value Basis mortality assumptions.

These can be set (dynamically) to the same values as the Valuation Basis assumptions via the tick-boxes on the left.

Death in Deferment calculations can be excluded by ticking the "Ignore Death in Deferment in Transfer Calculation" box.

Note that, consistent with the death in deferment on a Valuation Basis, the spouse/partner's post retirement mortality assumption is used on pension after deaths between transfer value date and normal retirement date.

2.2 Calculations for Transfer Values

The calculation of the value of the Transfer Value is the present value of the benefits given up, using the transfer value basis, of which the assumptions (interest, mortality, proportion married, age difference) may or may not be the same as the valuation basis. The cash flows may be capitalised at the date of exit or spread from the date of retirement / death between transfer date and date of retirement.

The benefits included are:

- Normal Retirement Pension for the Member
- Post Retirement pension upon death payable to spouse / partner
- Pre-Retirement pension upon death payable to spouse / partner
- Cash benefits – on top only, including any cash payable upon death
- Underpin[1]

Note that Early Retirement Benefits and Cash Commutation are not included; it is assumed that they would be of less value than Normal Retirement and therefore should be excluded.

The calculations / assumptions are demonstrated in the diagram below:

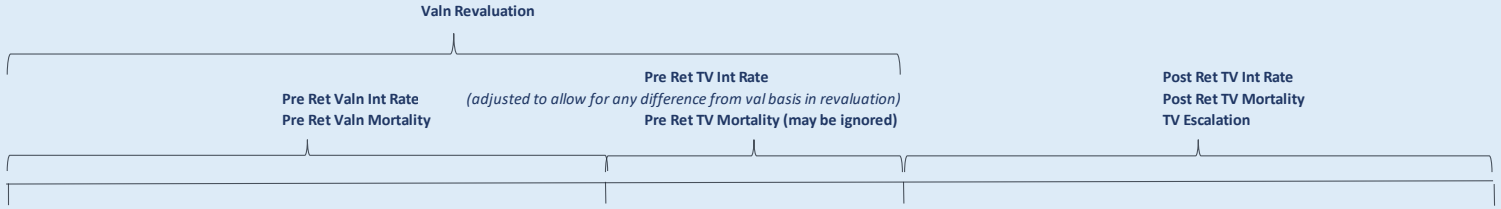
[1] Underpin is applied at date of transfer, rather than Normal Retirement Age or death; this is a known limitation of the Underpin code.

TV at NRA

VDATE
Liability
= Capitalised Value discounted back from TV DATE to VDATE on Valn Basis

NRD = TV DATE
Cash Flows
Capitalised =PV of payments on TV basis
Spread x_1 x_2 x_3 x_4 .....
where x_1, x_2 etc, are retirement cashflows member would have received (TV basis)

TV at ERA



VDATE
Liability
= Capitalised Value discounted back from TV DATE to VDATE on Valn Basis

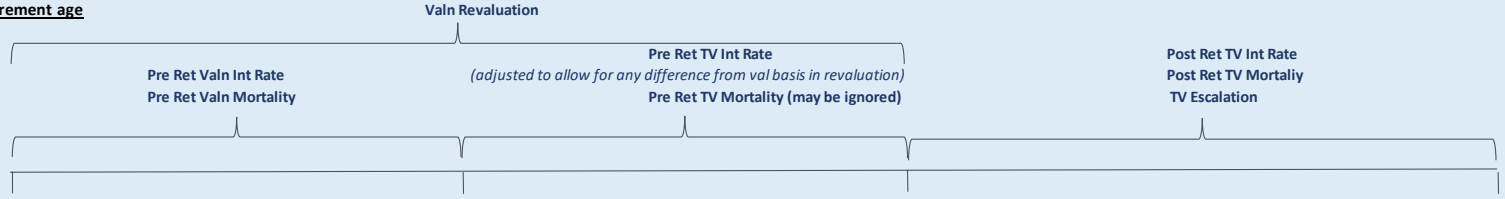
ERD = TV DATE
Cash Flows
Capitalise =PV of payments on TV basis

Spread y_1 y_2 y_3 y_4 .....
where y_1, y_2 etc, are DiD cashflows spouse / partner would have received (TV basis) spread from death

NRD
Cash Flows

Spread x_1 x_2 x_3 x_4 .....
where x_1, x_2 etc, are retirement / DiD cashflows member would have received (TV basis) spread from NRA

TV at non-retirement age



VDATE
Liability
= Capitalised Value discounted back from TV DATE to VDATE on Valn Basis

TV DATE
Cash Flows
Capitalised =PV of payments on TV basis

Spread y_1 y_2 y_3 y_4 .....
where y_1, y_2 etc, are DiD cashflows spouse / partner would have received (TV basis) spread from death

NRD
Cash Flows

Spread x_1 x_2 x_3 x_4 .....
where x_1, x_2 etc, are retirement cashflows member would have received (TV basis) spread from NRA

2.3 New Fields in Database / Excel Output

2.3.1 New Database Fields

There are 10 possible new contingencies with results in ResultsData:

ContingencyID	ContingencyName
31	Transfer at Voluntary Early Retirement
32	Transfer at NRA (or later) Retirement
33	Transfer at Late Retirement
34	Death after Transfer at Voluntary Early Retirement
35	Death after Transfer at NRA (or later) Retirement
37	Transfer Out before Normal Retirement
38	Transfer Out at Normal (or later) Retirement
39	Transfer Out at Late Retirement
40	Death after Transfer Out before Normal Retirement
41	Death after Transfer Out at Normal (or later) Retirement

2.3.2 New Fields in "Member Results Listing"

New fields for Transfer Value components at valuation date and individual Transfer Out Valuation Factors at average age of exit.

Note that the proportion of the Spouses'/Partners' Transfer Out Valuation Factors for death in deferment do not allow for revaluation.

Member Results Listing

Selected Members' Valuation Results

Client:	Testing TV's
Valn Method:	DEF
Valn Date:	01/01/2020
Basis File:	CAT A

Select View: ( ) Death ( ) Transfer Out ( ) Discontinuance (•) All — (•) Pension Increase ( ) Member/Spouse

Average Age	43.5
Liability Weighted	42.5
PUP Weighted	41.5

Category						PUPs at Valuation Date										Retirement								
Sex	Basis ID	Data	Name	Age	No. Members	Pre 88 GMP	Post 88 GMP	Main	Special	Peninc3	Peninc4	NS PUPs	Total	NRA PUP	Total	Pre 88 GMP	Post 88 GMP	Main	Special	Peninc3	Peninc4	Underpin	NS PUPs	All Cash
				Total	8	679	2,000	21,500	21,500	43,000	0	0	[illegible]	[illegible]	[illegible]	0	0	1	1	3	0	0	0	1
M	Deferreds I	0	Member1	41	1	0	0	10,000	10,000	20,000	0	0	40,000	64,337	405,309	0	0	1	1	2	0	0	0	0
M	Deferreds I	0	Member2	49	1	370	0	2,000	2,000	4,000	0	0	8,370	11,699	99,347	0	0	0	0	0	0	0	0	0
M	Deferreds I	0	Member5	43	1	55	549	2,000	2,000	4,000	0	0	8,603	13,987	94,429	0	0	0	0	0	0	0	0	0
M	Deferreds I	0	Member6	50	1	52	528	1,500	1,500	3,000	0	0	6,580	9,186	81,556	0	0	0	0	0	0	0	0	0
F	Deferreds I	0	Member3	38	1	142	142	1,500	1,500	3,000	0	0	6,285	10,381	84,477	0	0	0	0	0	0	0	0	0
F	Deferreds I	0	Member4	30	1	60	120	2,000	2,000	4,000	0	0	8,181	15,218	98,309	0	0	0	0	0	0	0	0	0
F	Deferreds I	0	Member7	55	1	0	0	1,000	1,000	2,000	0	0	4,000	4,418	77,215	0	0	0	0	0	0	0	0	0
F	Deferreds I	0	Member8	44	1	0	661	1,500	1,500	3,000	0	0	6,661	9,562	106,952	0	0	0	0	0	0	0	0	0

Death in Deferment								
Pre 88 GMP	Post 88 GMP	Main	Special	Peninc3	Peninc4	Underpin	NS PUPs	Cash (& ROC)
43.5	1,697	14,226	16,209	37,245	0	0	0	0
0	0	8,176	9,343	21,537	0	0	0	0
302	0	1,524	1,729	3,954	0	0	0	0
55	704	1,635	1,868	4,294	0	0	0	0
41	532	1,109	1,257	2,871	0	0	0	0
58	73	497	563	1,286	0	0	0	0
30	76	636	724	1,662	0	0	0	0
0	0	170	189	422	0	0	0	0
0	311	479	539	1,220	0	0	0	0

Transfer Out								
Pre 88 GMP	Post 88 GMP	Main	Special	Peninc3	Peninc4	Underpin	NS PUPs	All Cash
8,226	32,911	182,461	202,005	449,978	0	0	0	102,145
0	0	71,879	79,077	174,714	0	0	0	40,579
4,074	0	17,101	18,813	41,586	0	0	0	10,284
644	7,754	14,990	16,491	38,436	0	0	0	9,567
586	7,240	13,129	14,444	31,913	0	0	0	8,432
1,918	2,543	15,098	16,808	37,978	0	0	0	7,855
1,004	2,663	17,791	19,903	44,970	0	0	0	8,850
0	0	14,882	16,713	37,783	0	0	0	7,077
0	12,711	17,590	19,755	44,636	0	0	0	9,710

Discontinuance Benefits (Valuation Basis)												
Pre 88 GMP	Post 88 GMP	Main	Special	Peninc3	Peninc4	Underpin	NS PUPs	All Cash (& DID)	Total	DID GMP	DID Excess	DID Total
7,960	32,148	176,549	195,446	435,349	0	0	0	200,096	########	3,209	94,741	97,950
0	0	68,251	75,051	165,737	0	0	0	96,246	405,285	0	55,666	55,666
3,889	0	16,238	17,855	39,430	0	0	0	21,946	99,341	506	11,158	11,664
612	7,360	14,234	15,652	34,564	0	0	0	22,002	94,423	1,185	11,259	12,445
557	6,871	12,467	13,709	30,273	0	0	0	17,674	81,551	970	8,272	9,242
1,918	2,543	15,097	16,808	37,977	0	0	0	10,133	84,476	131	2,346	2,477
1,004	2,663	17,790	19,903	44,970	0	0	0	11,976	98,307	106	3,022	3,128
0	0	14,881	16,713	37,782	0	0	0	7,857	77,214	0	780	780
0	12,711	17,590	19,755	44,636	0	0	0	12,259	106,950	311	2,238	2,548

Retirement Valuation Factors														
	Pre88 GMP		Post88 GMP		Main		Special		Peninc3		Peninc4		NS PUPs
Exit Age	Member	Spouse	Member	Spouse	Member	Spouse	Member	Spouse	Member	Spouse	Member	Spouse	Spouse
65.0	-	-	-	-	11.284	2.172	12.264	2.533	13.374	2.984	-	-	-
65.0	10.417	1.889	-	-	11.284	2.172	12.264	2.533	13.374	2.984	-	-	-
65.0	10.417	1.889	12.264	2.533	11.284	2.172	12.264	2.533	13.374	2.984	-	-	-
65.0	10.417	1.889	12.264	2.533	11.284	2.172	12.264	2.533	13.374	2.984	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-

Death in Deferment Valuation Factors							
	Pre88 GMP	Post88 GMP	Main	Special	Peninc3	Peninc4	NS PUPs
Exit Age	Spouse	Spouse	Spouse	Spouse	Spouse	Spouse	Spouse
54.5	-	-	18.120	20.635	23.881	-	-
58.5	15.390	-	17.300	19.578	22.310	-	-
54.5	16.029	20.635	18.120	20.635	23.881	-	-
58.5	15.390	19.578	17.300	19.578	22.310	-	-
52.5	14.807	18.439	16.358	18.439	20.928	-	-
51.5	14.943	18.969	16.776	18.969	21.602	-	-
57.5	-	-	14.279	15.881	17.712	-	-
54.5	-	17.389	15.518	17.389	19.807	-	-

Transfer Out Valuation Factors													
	Pre88 GMP		Post88 GMP		Main		Special		Peninc3		Peninc4		NS PUPs
Exit Age	Member	Spouse	Member	Spouse	Member	Spouse	Member	Spouse	Member	Spouse	Member	Spouse	Spouse
60.5	-	-	-	-	8.647	2.237	9.397	2.576	10.248	2.980	-	-	-
60.5	7.982	1.950	-	-	8.647	2.122	9.397	2.576	10.248	2.980	-	-	-
60.5	7.982	1.950	9.397	2.576	8.647	2.048	9.397	2.576	10.248	2.980	-	-	-
60.5	7.982	1.950	9.397	2.576	8.647	2.040	9.397	2.576	10.248	2.980	-	-	-
60.0	14.247	-	17.727	1.167	15.848	1.122	17.727	1.167	19.943	1.402	-	-	-
60.0	14.247	-	17.727	1.167	15.848	1.040	17.727	1.167	19.943	1.402	-	-	-
60.0	-	-	-	-	15.848	0.975	17.727	1.167	19.943	1.402	-	-	-
60.0	-	-	17.727	1.167	15.848	0.975	17.727	1.167	19.943	1.402	-	-	-

Discontinuance Valuation Factors													
	Pre88 GMP		Post88 GMP		Main		Special		Peninc3		Peninc4		NS PUPs
Exit Age	Member	Spouse	Member	Spouse	Member	Spouse	Member	Spouse	Member	Spouse	Member	Spouse	Spouse
65.0	-	-	-	-	11.284	2.172	12.264	2.533	13.374	2.984	-	-	-
65.0	10.417	1.889	-	-	11.284	2.172	12.264	2.533	13.374	2.984	-	-	-
65.0	10.417	1.889	12.264	2.533	11.284	2.172	12.264	2.533	13.374	2.984	-	-	-
65.0	10.417	1.889	12.264	2.533	11.284	2.172	12.264	2.533	13.374	2.984	-	-	-
60.0	14.247	-	17.727	1.167	15.848	1.122	17.727	1.167	19.943	1.402	-	-	-
60.0	14.247	-	17.727	1.167	15.848	1.040	17.727	1.167	19.943	1.402	-	-	-
60.0	-	-	-	-	15.848	0.975	17.727	1.167	19.943	1.402	-	-	-
60.0	-	-	17.727	1.167	15.848	0.975	17.727	1.167	19.943	1.402	-	-	-

2.3.3 New Fields in "Tabulated Total Results Listing"

New fields for Transfer Value components at valuation date.

Past Service

	Retirement	Death in Deferment	Transfer Out	Total
Pre 88 GMP	0	0	0	0
Post 88 GMP	0	0	0	0
Main	1	8,176	71,879	80,056
Special	1	9,343	79,077	88,420
Peninc3	2	21,537	174,714	196,253
Peninc4	0	0	0	0
Underpin	0	0	0	0
NS PUP	0	0	0	0
All Cash	0	0	40,579	40,580
Total	**3**	**39,056**	**366,250**	**405,309**
Member	3	0	295,709	295,712
Spouse	1	39,056	70,542	109,598

2.3.4 New column in "Cash Flows"

- If spread, the Transfer cash flows will begin from NRD or from death between date of transfer and NRD (if death in deferment is included)
- If capitalised, the cash flow will be at the TV date.

2.3.5 New tables in "Table Basis ID"

The TOxxx, TRxxx and TPxxx tables will be output here.