

Dynamic Valuation and NonForfeiture Interest Rate Calculations

Report through: Dec-18	Current Year Averages Ending: June 2019		Prior Year Averages Ending: June 2018	
Date Prepared: 01/09/19	12 Month: 4.47%	36 Month: 4.19%	12 Month: 4.05%	36 Month: 4.17%

The rates displayed on this sheet may not apply to contracts that are subject to a principle-based valuation.

LIFE INSURANCE CALCULATIONS

Projected 2020 Interest Rates			Val. Break Pt. Rate***		2019 Actual Interest Rates		
Duration	Val*	NFF**	Lower	Higher	Duration	Val	NFF**
10 or Less	3.75	4.75	3.06	10.89	10 or Less	3.75	4.75
10+ - 20	3.75	4.75	3.22	12.39	10+ - 20	3.75	4.75
More than 20	3.50	4.50	2.26	12.39	More than 20	3.50	4.50

*Minimum change from previous year's rate is 50 basis points. **Function of Valuation Rate.

***These Columns reflect the average actual rate over the next 6 Months required to cause a 50 basis points change from the 2019 Actual Rate.

ANNUITY CALCULATIONS

SINGLE PREMIUM IMMEDIATE ANNUITY

2018 Actual Valuation Interest Rate: 3.75%

Projected 2019 Valuation Interest Rate: 4.25%	Low Break Point: 4.36	High Break Point: 4.99
---	-----------------------	------------------------

SINGLE PREMIUM or ANNUAL PREMIUM DEFERRED ANNUITY : Issue Year Basis

Issue Year Basis: 2019 Projected				Cash Settlement	Future Int. Guar.	Type A Break Pt.		Type C Break Pt.	
Duration	A	B	C			Lower	Higher	Lower	Higher
5 or Less	4.25	4.00	3.75			4.36	4.99	4.06	5.07
5+ - 10	4.00	4.00	3.75	Yes	Yes	3.88	4.57	4.06	5.07
10+ - 20	3.75	3.50	3.50			3.48	5.43	3.22	5.67
More than 20	3.50	3.50	3.50			3.22	5.67	3.80	8.07
5 or Less	4.25	4.00	3.75			4.20	4.79	3.82	4.75
5+ - 10	4.25	4.00	3.75	Yes	No	4.36	4.99	3.82	4.75
10+ - 20	3.75	3.75	3.50			3.34	4.89	3.06	4.89
More than 20	3.50	3.50	3.50			3.06	4.89	3.42	6.75
5 or Less	4.25					4.36	4.99		
5+ - 10	4.00	N/A	N/A	No	Yes/No	3.88	4.57	N/A	N/A
10+ - 20	4.00					4.24	5.03		
More than 20	3.75					4.32	5.45		

SINGLE PREMIUM or ANNUAL PREMIUM DEFERRED ANNUITY : Change in Fund Basis

Change in Fund Basis: 2019 Projected				Cash Settlement	Future Int. Guar.	Type A Break Pt.		Type C Break Pt.	
Duration	A	B	C			Lower	Higher	Lower	Higher
5 or Less	4.50	4.25	3.75			4.44	4.99	3.82	4.75
5+ - 10	4.25	4.25	3.75	Yes	Yes	4.06	4.61	3.82	4.75
10+ - 20	4.25	4.00	3.75			4.36	4.99	4.06	5.07
More than 20	4.00	4.00	3.50			4.46	5.31	3.42	4.69
5 or Less	4.50	4.25	4.00			4.30	4.81	4.46	5.31
5+ - 10	4.50	4.25	4.00	Yes	No	4.44	4.99	4.46	5.31
10+ - 20	4.25	4.25	3.75			4.20	4.79	3.82	4.75
More than 20	4.00	4.00	3.75			4.24	5.03	4.32	5.45

INDIVIDUAL DEFERRED ANNUITY MINIMUM NONFORFEITURE VALUES

Five-Year Constant Maturity Treasury Rates (Based on averages of the published Monthly rates.)

12 Month Average Ending Sep 2018: 2.55%	For the Indicated Periods Ending Dec 2018: 12 Month - 2.75% 3 Month - 2.88% 1 Month - 2.68%
---	---

If one of the above rates is your basis, then the Minimum Nonforfeiture Interest Rate would be:

12 Month Average Ending Sep 2018: 1.30%	For the Indicated Periods Ending Dec 2018: 12 Month - 1.50% 3 Month - 1.65% 1 Month - 1.45%
---	---

HISTORICAL TAX INTEREST RATES*

2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
4.06%	4.06%	3.81%	3.46%	2.89%	2.16%	1.79%	1.68%	1.56%	1.46%	1.66%

*No longer applicable. Tax Interest Rates are for historical purposes only due to new tax laws.