## CIRCULAR LETTER No. 23 (2000)

# MAXIMUM RESERVE VALUATION AND MAXIMUM LIFE POLICY NONFORFEITURE INTEREST RATES UNDER SECTIONS 4217, 4218 AND 4221(k) OF THE NEW YORK INSURANCE LAW

The maximum valuation and nonforfeiture interest rates, prescribed by Sections 4217 and 4221(k) of the New York Insurance Law for future years, will vary from year to year depending on Moody's corporate bond yield averages.

The maximum valuation interest rates for issues, purchases and changes-in-fund of years 1982 through 2000 (and other years where shown) are outlined below. The maximum valuation and nonforfeiture interest rates for Ordinary Life Insurance are shown in Category A of page 2, except for Single Premium Life Insurance (the kind referred to in Section 4217(c)(4)(B)(vi) as amended by Chapter 302 of the laws of 1987) the maximum valuation interest rates for which are shown in Category B on page 3.

# A. ORDINARY LIFE INSURANCE (Except as covered in B on page 3)

*Issue <u>Year</u>	**Guarantee Duration	***Maximum Reserve Valuation Interest Rate	No Int	Maximum onForfeiture erest Rate, 980 CSO#
1979-1990	See Prior Circular Letter No. 8 (1990)			_
1991	10 Years or less More than 10 years, up to 20 More than 20 years	6.00% 6.00 5.50		7.50% 7.50 7.00
1992	10 Years or less More than 10 years, up to 20 More than 20 years	6.00% 6.00 5.50		7.50% 7.50 7.00
1993	10 Years or less More than 10 years, up to 20 More than 20 years	6.00% 6.00 5.00	##	7.50% 7.50 6.25
1994	10 Years or less More than 10 years, up to 20 More than 20 years	5.50% 5.25 5.00	## ##	7.00% 6.50 6.25
1995	10 Years or less More than 10 years, up to 20 More than 20 years	5.50% 5.25 4.50	##	7.00% 6.50 5.75
1996-1998	10 Years or less More than 10 years, up to 20 More than 20 years	5.50% 5.25 4.50		7.00% 6.50 5.75
1999-2001	10 Years or less More than 10 years, up to 20 More than 20 years	5.00% 4.75 4.50		6.25% 6.00 5.75

<sup>\*</sup> See the paragraph at the top of page 11.

<sup>\*\*</sup> The guarantee duration is the maximum number of years the life insurance can remain inforce on a basis guaranteed in the policy.

<sup>\*\*\*</sup> The maximum reserve valuation interest rate will be the lesser of the rate as determined from the above table and the rate actually used in determining cash values. This applies to basic reserves under Section 4217, not to the minimum reserve test under Section 4218.

<sup>#</sup> Applicable on or after the operative date elected under Section 4221(k)(12). (See the top paragraph on page 10). These rates do not apply to policies issued pursuant to Section 4221(n)(1).

<sup>##</sup> In accordance with Section 4221(k)(9)(B)(i) of the New York Insurance Law, the nonforfeiture interest rate used for a particular issue year may not exceed the higher of the applicable maximum nonforfeiture interest rate for such particular issue year and that for the immediately preceding issue year (e.g. 1998 issues may use the rate for 1997, 1999 issues may use the rate for 1998).

B. Single Premium Life Insurance of the kind referred to in Section 4217(c)(4)(B)(vi) of the New York Insurance Laws (as amended by Chapter 302 of the laws of 1987).#

\* Maximum Reserve Valuation Interest Rate

		Interest Rate		
Issue	Guarantee Duration**	Issue Year	Change-In-Fund	
<u>Year</u>		<u>Basis</u>	<u>Basis</u>	
1982-1990	See Prior Circular Letter No. 8 (1990)			
1991	10 Years or less	6.75%	7.00%	
	More than 10 yrs, up to 20	6.25	6.75	
	More than 20 years	5.50	6.00	
1992	10 Years or less	6.25%	6.50%	
	More than 10 yrs, up to 20	6.00	6.25	
	More than 20 years	5.25	5.75	
1993	10 Years or less	5.75%	6.00%	
	More than 10 yrs, up to 20	5.50	5.75	
	More than 20 years	5.00	5.25	
1994	10 Years or less	5.50%	5.75%	
	More than 10 yrs, up to 20	5.25	5.50	
	More than 20 years	4.75	5.00	
1995	10 Years or less	6.00%	6.25%	
	More than 10 yrs, up to 20	5.50	6.00	
	More than 20 years	5.00	5.50	
1996	10 Years or less	5.50%	5.75%	
	More than 10 yrs, up to 20	5.25	5.50	
	More than 20 years	4.75	5.00	
1997	10 Years or less	5.50%	5.75%	
	More than 10 yrs, up to 20	5.25	5.50	
	More than 20 years	5.00	5.25	
1998	10 Years or less	5.25%	5.50%	
	More than 10 yrs, up to 20	5.00	5.25	
	More than 20 years	4.75	4.75	
1999	10 Years or less	5.25%	5.50%	
	More than 10 yrs, up to 20	5.00	5.25	
	More than 20 years	4.50	4.75	
2000	10 Years or less	5.75%	6.00%	
	More than 10 yrs, up to 20	5.25	5.75	
	More than 20 years	4.75	5.25	

<sup>\*</sup> See page 11.

The guarantee duration is the number of years for which interest rates provided in, or declared pursuant to, a single premium life insurance policy of the kind referred to in Section 4217(c)(4)(B)(vi) are guaranteed to exceed the greater of (1) 6% and (2) the calendar year statutory valuation interest rate for life insurance policies (other than such single premium policy) with guarantee duration's in excess of 20 years.

<sup>#</sup> Said Chapter 302 amendment became effective, on a mandatory basis, on January 1, 1989. Any company could have filed a written notice of prior election.

C. Single Premium Immediate Annuities and annuity benefits arising from life insurance policies and annuity and guaranteed interest contracts with cash settlement options.

Issues of or Purchases <u>During</u>	Maximum Reserve Valuation Interest Rate
1982	13.25%
1983	11.25
1984	11.25
1985	11.00
1986	9.25
1987	8.00
1988	8.75
1989	8.75
1990	8.25
1991	8.25
1992	7.75
1993	7.00
1994	6.50
1995	7.25
1996	6.75
1997	6.75
1998	6.25
1999	6.25
2000	7.00

D. Other Annuities and Guaranteed Interest Contracts, <u>with</u> cash settlement options and <u>with</u> interest rate guarantees on future considerations, valued on the "Issue Year" basis.

<u>Maximum</u>	Reserve	Valuation	Interest Rate

lague		*Plan Type		
Issue <u>Year</u>	Guarantee Duration #	<u>A</u>	<u>B</u>	<u>C</u>
1982-1990	See Prior Circular Letter No. 8 (1990)			
1991	5 Years or less	8.25%	7.00%	6.25%
	More than 5 yrs, up to 10	8.00	7.00	6.25
	More than 10 yrs, up to 20	7.00	6.25	5.75
	More than 20 years	5.75	5.25	5.25
1992	5 Years or less	7.75%	6.50%	6.00%
	More than 5 yrs, up to 10	7.50	6.50	6.00
	More than 10 yrs, up to 20	6.75	6.00	5.75
	More than 20 years	5.75	5.00	5.00
1993	5 Years or less	7.00%	6.00%	5.50%
	More than 5 yrs, up to 10	6.75	6.00	5.50
	More than 10 yrs, up to 20	6.25	5.50	5.25
	More than 20 years	5.25	4.75	4.75
1994	5 Years or less	6.50%	5.75%	5.25%
	More than 5 yrs, up to 10	6.50	5.75	5.25
	More than 10 yrs, up to 20	6.00	5.25	5.00
	More than 20 years	5.00	4.50	4.50
1995	5 Years or less	7.25%	6.25%	5.75%
	More than 5 yrs, up to 10	7.00	6.25	5.75
	More than 10 yrs, up to 20	6.25	5.50	5.25
	More than 20 years	5.25	4.75	4.75
1996	5 Years or less	6.75%	5.75%	5.25%
	More than 5 yrs, up to 10	6.50	5.75	5.25
	More than 10 yrs, up to 20	6.00	5.25	5.00
	More than 20 years	5.00	4.50	4.50
1997	5 Years or less	6.75%	5.75%	5.25%
	More than 5 yrs, up to 10	6.50	5.75	5.25
	More than 10 yrs, up to 20	6.00	5.25	5.25
	More than 20 years	5.25	4.75	4.75
1998	5 Years or less	6.25%	5.50%	5.00%
	More than 5 yrs, up to 10	6.00	5.50	5.00
	More than 10 yrs, up to 20	5.75	5.00	4.75
	More than 20 years	4.75	4.50	4.50
1999	5 Years or less	6.25%	5.50%	5.00%
	More than 5 yrs, up to 10	6.00	5.50	5.00
	More than 10 yrs, up to 20	5.50	5.00	4.75
	More than 20 years	4.75	4.50	4.50
2000	5 Years or less	7.00%	6.00%	5.50%
	More than 5 yrs, up to 10	6.75	6.00	5.50
	More than 10 yrs, up to 20	5.75	5.25	5.00
	More than 20 years	5.00	4.50	4.50

<sup>#</sup> See definition of guarantee duration for Categories D, E, G and H on page 10.

<sup>\*</sup> See descriptions of plan types on page 10.

E. Other Annuities and Guaranteed Interest Contracts, <u>with</u> cash settlement options but <u>without</u> interest rate guarantees on future considerations, valued on the "Issue Year" basis.

# Maximum Reserve Valuation Interest Rate

logue			*	Plan Typ	<u>e</u>
Issue <u>Year</u>	Guarantee Duration #		<u>A</u>	<u>B</u>	<u>C</u>
1982-1990	See Prior Circular Letter No. 8 (1990)				
1991	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years		8.75% 8.25 7.50 6.25	7.25% 7.25 6.50 5.50	6.75% 6.75 6.25 5.50
1992	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years		8.00% 7.75 7.00 6.00	6.75% 6.75 6.25 5.25	6.25% 6.25 6.00 5.25
1993	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years		7.25% 7.00 6.50 5.50	6.25% 6.25 5.75 5.00	5.75% 5.75 5.50 5.00
1994	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	(	6.75% 6.50 6.25 5.25	6.00% 6.00 5.50 4.75	5.50% 5.50 5.25 4.75
1995	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years		7.50% 7.25 6.50 5.50	6.50% 6.50 5.75 5.00	6.00% 6.00 5.50 5.00
1996	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	(	6.75% 6.75 6.25 5.25	6.00% 6.00 5.50 4.75	5.50% 5.50 5.25 4.75
1997	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	(	7.00% 6.75 6.25 5.25	6.00% 6.00 5.50 5.00	5.50% 5.50 5.25 5.00
1998	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	(	6.50% 6.25 6.00 5.00	5.75% 5.75 5.25 4.75	5.25% 5.25 5.00 4.75
1999	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	(	6.25% 6.25 5.75 5.00	5.50% 5.50 5.25 4.50	5.25% 5.25 5.00 4.50
2000	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years		7.25% 7.00 6.00 5.25	6.25% 6.25 5.50 4.75	5.75% 5.75 5.25 4.75

<sup>#</sup> See definition of guarantee duration for Categories D, E, G and H on page 10.

<sup>\*</sup> See descriptions of plan types on page 10.

F. Other Annuities and Guaranteed Interest Contracts, <u>without</u> cash settlement options, valued on the "Issue Year" basis.

# Maximum Reserve Valuation Interest Rate

Issue		microsi riaio
<u>Year</u>	Guarantee Duration**	*Plan Type A
1982-1990	See Prior Circular Letter No. 8 (1990)	
1991	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	8.25% 8.00 7.25 6.00
1992	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	7.75% 7.50 6.75 5.75
1993	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	7.00% 6.75 6.25 5.25
1994	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	6.50% 6.50 6.00 5.00
1995	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	7.25% 7.00 6.50 5.50
1996	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	6.75% 6.50 6.00 5.00
1997	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	6.75% 6.50 6.00 5.25
1998	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	6.25% 6.00 5.75 4.75
1999	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	6.25% 6.00 5.50 4.75
2000	5 Years or less More than 5 yrs, up to 10 More than 10 yrs, up to 20 More than 20 years	7.00% 6.75 6.25 5.25

<sup>\*</sup> See descriptions of plan types on page 10.

The guarantee duration, for other annuities and guaranteed interest contracts <u>without</u> cash settlement options, is the number of years from the date of issue or date of purchase to the date annuity benefits are scheduled to commence.

G. Other Annuities and Guaranteed Interest Contracts, <u>with</u> cash settlement options and <u>with</u> interest rate guarantees on future considerations, valued on the "Change-in-Fund" basis.

#### Maximum Reserve Valuation Interest Rate \*Plan Type Change in Fund During Year Guarantee Duration # В <u>C</u> <u>A</u> 1982-1990 See Prior Circular Letter No. 8 (1990) 1991 5 Years or less 9.25% 8.75% 6.75% More than 5 yrs, up to 10 9.00 8.75 6.75 More than 10 yrs, up to 20 8.25 8.00 6.25 More than 20 years 7.00 7.00 5.75 1992 5 Years or less 8.50% 8.00% 6.25% More than 5 yrs, up to 10 8.25 8.00 6.25 More than 10 yrs, up to 20 7.75 7.50 6.00 More than 20 years 6.50 6.50 5.25 7.75% 7.25% 1993 5 Years or less 5.75% More than 5 yrs, up to 10 7.50 7.25 5.75 More than 10 yrs, up to 20 7.00 6.75 5.50 More than 20 years 6.00 6.00 5.00 1994 5 Years or less 7.25% 6.75% 5.50% More than 5 yrs, up to 10 6.75 7.00 5.50 5.25 More than 10 yrs, up to 20 6.50 6.50 More than 20 years 5.75 5.75 4.75 1995 5 Years or less 8.25% 7.50% 6.00% More than 5 yrs, up to 10 8.00 7.50 6.00 More than 10 yrs, up to 20 7.25 7.00 5.75 More than 20 years 6.25 6.25 5.25 1996 7.25% 6.75% 5 Years or less 5.50% More than 5 vrs. up to 10 7.00 6.75 5.50 More than 10 yrs, up to 20 6.75 6.50 5.25 More than 20 years 5.75 5.75 4.75 1997 5 Years or less 7.50% 7.00% 5.50% More than 5 yrs, up to 10 7.25 7.00 5.50 More than 10 yrs, up to 20 6.75 6.50 5.25 More than 20 years 5.75 5.75 5.00 1998 5 Years or less 7.00% 6.50% 5.25% More than 5 yrs, up to 10 6.75 6.50 5.25 More than 10 yrs, up to 20 6.25 6.00 5.00 More than 20 years 5.50 5.50 4.75 6.25% 1999 5 Years or less 6.75% 5.25% More than 5 yrs, up to 10 6.50 6.25 5.25 More than 10 yrs, up to 20 6.25 6.00 5.00 More than 20 years 5.50 5.50 4.50 2000 5 Years or less 7.75% 7.25% 5.75% More than 5 yrs, up to 10 7.50 7.25 5.75 More than 10 yrs, up to 20 7.00 6.75 5.50 More than 20 years 6.00 6.00 5.00

<sup>#</sup> See definition of guarantee duration for Categories D, E, G and H on page 10.

<sup>\*</sup> See descriptions of plan types on page 10.

H. Other Annuities and Guaranteed Interest Contracts, <u>with</u> cash settlement options and <u>without</u> interest rate guarantees on future considerations, valued on the "Change-in-Fund" basis.

#### Maximum Reserve Valuation Interest Rate \*Plan Type Change in Fund During Α <u>B</u> <u>C</u> **Guarantee Duration #** <u>Year</u> 1982-1990 See Prior Circular Letter No. 8 (1990) 1991 5 Years or less 9.75% 9.00% 7.00% More than 5 yrs, up to 10 9.25 9.00 7.00 More than 10 yrs, up to 20 8.75 8.25 6.75 More than 20 years 7.25 7.25 6.00 5 Years or less 9.00% 8.25% 1992 6.50% More than 5 yrs, up to 10 8.50 8.25 6.50 More than 10 yrs, up to 20 8.00 7.75 6.25 More than 20 years 6.75 6.75 5.75 1993 5 Years or less 8.25% 7.50% 6.00% More than 5 yrs, up to 10 7.75 6.00 7.50 More than 10 yrs, up to 20 7.25 7.00 5.75 More than 20 years 6.25 6.25 5.25 1994 5 Years or less 7.50% 7.00% 5.75% More than 5 yrs, up to 10 7.25 7.00 5.75 More than 10 yrs, up to 20 6.75 6.50 5.50 More than 20 years 6.00 6.00 5.00 1995 5 Years or less 8.50% 8.00 6.25% More than 5 yrs, up to 10 8.25 8.00 6.25 More than 10 yrs, up to 20 7.50 7.25 6.00 More than 20 years 6.50 6.50 5.50 7.50% 1996 5 Years or less 7.00 5.75% More than 5 yrs, up to 10 7.25 7.00 5.75 More than 10 yrs, up to 20 6.75 6.75 5.50 More than 20 years 6.00 6.00 5.00 1997 5 Years or less 7.75% 7.25% 5.75% More than 5 yrs, up to 10 7.50 7.25 5.75 More than 10 yrs, up to 20 7.00 6.75 5.50 More than 20 years 6.00 6.00 5.25 1998 5 Years or less 7.00% 6.75% 5.50% More than 5 yrs, up to 10 7.00 6.75 5.50 6.50 More than 10 yrs, up to 20 6.25 5.25 More than 20 years 5.75 5.75 4.75 1999 5 Years or less 7.00% 6.50% 5.50% More than 5 yrs, up to 10 6.75 6.50 5.50 More than 10 yrs, up to 20 6.25 6.25 5.25 5.50 More than 20 years 5.50 4.75

8.00%

7.75

7.25

6.25

7.50%

7.50

7.00

6.25

6.00%

6.00

5.75

5.25

More than 20 years

More than 5 yrs, up to 10

More than 10 yrs, up to 20

5 Years or less

2000

<sup>#</sup> See definition of guarantee duration for Categories D, E, G and H on page 10.

<sup>\*</sup> See descriptions of plan types on page 10.

Said Section 4221(k)(12) was amended by Chapter 81 of the Laws of 1983 to permit a company to elect to comply with the new provisions of Section 4221 on a plan-by-plan basis, with the provision that the entire portfolio must be converted to the new provisions on or before January 1 of the third calendar year following the calendar year of compliance for the first plan so converted, but not, in any event, later than January 1, 1989.

Plan types, as used in the above tables, are defined as follows:

<u>Plan Type A</u>: The policyholder may withdraw funds only (1) with an adjustment to reflect changes in interest rates or asset values since receipt of the funds by the insurance company, or (2) without such adjustment but in installments over five years or more, or (3) as an immediate life annuity.

<u>Plan Type B</u>: The policyholder may not withdraw funds before the expiration of the interest rate guarantee or, if withdrawals are permitted, before the expiration of such guarantee, may withdraw funds only (1) with an adjustment to reflect changes in interest rates or asset values since receipt of the funds by the insurance company, or (2) without such adjustment but in installments over five years or more. At the end of the interest rate guarantee, funds may be withdrawn without such adjustment in a single sum or in installments over less than five years.

<u>Plan Type C</u>: The policyholder may withdraw funds before the expiration of the interest rate guarantee in a single sum or installments over less than five years either (1) without adjustment to reflect changes in interest rates or asset values since receipt of the funds by the insurance company, or (2) subject only to a fixed surrender charge stipulated in the contract as a percentage of the fund.

(The most popular plan type, in the group annuity area, for current issues, is plan type B; while the most popular plan type, in the individual annuity area, for current issues, is plan type C.)

The <u>guarantee duration</u>, for other annuities and guaranteed interest contracts <u>with</u> cash settlement options, generally is the number of years for which the contract guarantees interest rates in excess of the calendar year statutory valuation interest rate for life insurance policies (covered in A on page 2) with a guarantee duration of more than twenty years (See D, E, G and H herein).

The <u>guarantee duration</u>, for other annuities and guaranteed interest contracts <u>without</u> cash settlement options, is the number of years from the date of issue or date of purchase to the date annuity benefits are scheduled to commence.

Other annuities and guaranteed interest contracts, without cash settlement options, may be valued only on an "Issue Year" basis.

Regulation 126, in effect on December 31, 1993, contained provisions effecting the valuation of annuities, GIC's, deposit funds, structured settlements and single premium life policies. Although requirements contained in Sections 95.11 to 95.17 of Regulation 126, in effect on December 31, 1993 may not have all been incorporated into Regulation 126, as promulgated on December 1, 1994, they have continued to be administered. For example, Section 95.12 of Regulation 126, in effect on December 31, 1993, details the current procedures regarding the valuation of structured settlement annuities with lump sum payments. The provisions from Regulation 126, in effect on December 31, 1993, were modified to be generally consistent with NAIC Model Guidelines XXXIII and XXXIV, and have been incorporated into Proposed Regulation 151, which should be adopted in the near future.

The maximum reserve valuation interest rates for annuities and guaranteed interest contracts and for single premium life insurance policies of the kind referred to in Section 4217(c)(4)(B)(vi), are based on Moody's Corporate Bond Yield Averages for a one or three year period ending in June of the year of issue, purchase, or change in fund. Consequently, we are not able to compute such rates applicable to 2001 at this time.

The attached Appendix describes the method of calculating the maximum reserve valuation interest rates, in accordance with the specifications of Section 4217 of the New York Insurance Law, as amended.

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Section 4217, as amended by Chapter 749 of the Laws of 1983, permits the dynamic interest rates (under the 1982 amendments) to be used for issues of January 1, 1982 and later, independent of a company's election or non-election under Section 4221(k)(12). Thus, the new dynamic interest rates may be used either with 1958 CSO issues of January 1, 1982 through December 31, 1988 or with 1980 CSO issues of January 1, 1982 and later, for valuation purposes.

The reserve for a Single Premium Life Insurance policy, of the kind referred to in Section 4217(c)(4)(B)(vi) of the New York Insurance Law, must not be less than its cash value. See Section 95.14 of Regulation 126 in effect on December 31, 1993.

### **APPENDIX**

## To Circular Letter Number 23 (2000)

The maximum reserve valuation interest rates are based on reference interest rates, which are averages of corporate bond earnings published by Moody's Investors Service, Inc., and weighting factors prescribed by Section 4217.

The weighting factors do not vary from year to year. None of the weighting factors given in Table 1 below will change unless Section 4217 is revised by new legislation. The following formulas are used to compute the maximum reserve valuation interest rates:

or

I = 3.00% + W(R-3.00)%, (Formula 2, called "Annuity Formula")

#### Where:

I = Maximum calendar year statutory valuation interest rate, rounded to the nearer 1/4%.

R = Reference interest rate, derived from Moody's corporate bond monthly yield averages, rounded to the nearer basis point (.01 of 1%).

 $R_1$  = Lesser of R and 9.00%.

 $R_2$  = Greater of R and 9.00%.

W = Weighting factor.

The third term of Formula 1 is dropped whenever the reference interest rate falls below 9.00%. The weighting factors vary by type of benefit, guarantee duration, and valuation basis (i.e. 'issue year' basis or 'change-in-fund' basis). An asterisk (\*), where shown with the weighting factor in Table 1, indicates that Formula 2 may optionally be used with a given factor if an acceptable actuarial opinion and memorandum are provided, as required by Section 4217(c)(4)(B)(vi).

Benefit Category (in this Circular Letter)	Guarantee Duration (Where duration t, in years, is)	TABLE 1 Valuation Basis	Reference <u>Interest Rate</u> (Column from Table 2)	Weighting <u>Factor</u>
А	= or < 10 > 10, = or < 20 > 20	Issue Year	(3)	.50 .45 .35
В	= or < 10 > 10, = or < 20 > 20	Issue Year Issue Year Issue Year	(1) (3) (3)	.55* .50 .40
В	= or < 10 > 10, = or < 20 > 20	Change-in-Fund Change-in-Fund Change-in-Fund	(1) (1) (1)	.60* .55* .45*
С	Not Applicable	Issue or Purchase Year	(1)	.80*

# APPENDIX (Continued)

# To Circular Letter Number 23 (2000)

Benefit Category (in this Circular Letter)	Guarantee Duration (Where duration t in years, is)	Valuation <u>Basis</u>	Reference <u>Interest Rate</u> (Column from Table 2)	<u>We</u>	ighting Fa	<u>ctor</u>
	, ,			<u>Varie</u>	s By Plan	T <u>ype</u>
				<u>A</u>	<u>B</u>	<u>C</u>
D	= or <5	Issue	(1)	.80*	.60*	.50*
	> 5, = or <10	Year	(1)	.75*	.60	.50*
	> 10, = or $< 20$		(3)	.65	.50	.45
	> 20		(3)	.45	.35	.35
E	= or <5	Issue	(1)	.85*	.65*	.55*
	> 5, = or $< 10$	Year	(1)	.80*	.65*	.55*
	> 10, = or $< 20$		(3)	.70	.55	.50
	> 20		(3)	.50	.40	.40
F	= or <5	Issue	(1)	.80*		
	> 5, = or $< 10$	Year	(1)	.75*		
	> 10, = or $< 20$		(1)	.65*		
	> 20		(1)	.45*		
G	= or <5	Change	(1)	.95*	.85*	.55*
	> 5, = or <10	In	(1)	.90*	.85*	.55*
	> 10, = or $< 20$	Fund	(1)	.80*	.75*	.50*
	> 20		(1)	.60*	.60*	.40*
Н	= or <5	Change	(1)	1.00*	.90*	.60*
	> 5, = or <10	In	(1)	.95*	.90*	.60*
	> 10, = or < 20	Fund	(1)	.85*	.80*	.55*
	> 20		(1)	.65*	.65*	.45*

The reference interest rates are based on the average corporate bond earnings published by Moody's Investors Service, Inc.

Section 4217 defines running averages of the published monthly yield rates for 12-month and 36-month periods.

The year of issue, of purchase or of change-in-fund, applicable to the running yield average ending in the current year, is the next following year for Life Insurance other than single premium life insurance of the kind referred to in Section 4217(c)(4)(B)(vi) (i.e. Category A in the Circular Letter) and the current year for all other business (i.e. Categories B through H in the Circular Letter).

# APPENDIX (Continued)

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The following table shows Moody's yield averages for recent years:

### TABLE 2

For Period Ending June 30 of Year	12-Month Running <u>Average</u>	36-Month Running <u>Average</u>	Lesser of Two Averages
	(1)	(2)	(3)
1981	13.71%	11.57%	11.57%
1982	15.70	13.64	13.64
1983	13.39%	14.26%	13.39%
1984	13.22	14.10	13.22
1985	13.01%	13.21%	13.01%
1986	10.75	12.33	10.75
1987	9.40%	11.05%	9.40%
1988	10.32	10.15	10.15
1989	10.09%	9.93%	9.93%
1990	9.52	9.97	9.52
1991	9.63%	9.74%	9.63%
1992	8.88	9.34	8.88
1993	8.13%	8.88%	8.13%
1994	7.52	8.18	7.52
1995	8.42%	8.03%	8.03%
1996	7.55	7.83	7.55
1997	7.74%	7.90%	7.74%
1998	7.11	7.47	7.11
1999	6.96%	7.27%	6.96%
2000	7.93%	7.33%	7.33%

The maximum nonforfeiture interest rate for Life Insurance, under Section 4221(k), for a particular issue year, is equal to 125% of the maximum reserve valuation interest rate for the same issue year, rounded to the nearer 1/4%.

Should the computed maximum reserve valuation interest rate for Life Insurance (other than Single Premium Life Insurance covered in Category B on page 3 of the Circular Letter) for a particular issue year be different from the actual maximum reserve valuation interest rate for the next previous issue year by less than 1/2%, then the maximum reserve valuation interest rate for such particular issue year will be the same as that for such next previous issue year.