



Prescribed U.S. statutory and tax interest rates for the valuation of life insurance and annuity products

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Section 1: Introduction

Annually, WTW publishes a summary of prescribed U.S. valuation interest rates for life insurance and annuity products. These interest rates are used in determining minimum U.S. statutory reserves, minimum life policy nonforfeiture values and tax reserves.

This report updates the maximum statutory valuation rate and nonforfeiture interest rate for calendar year 2024 issues of life insurance products and the maximum statutory valuation interest rates for calendar year 2023 issues of annuity products.

VM-22 was adopted with an effective date of January 1, 2018, and prescribes the interest rates to be used when valuing single premium immediate annuities and other similar contracts or supplementary contracts.

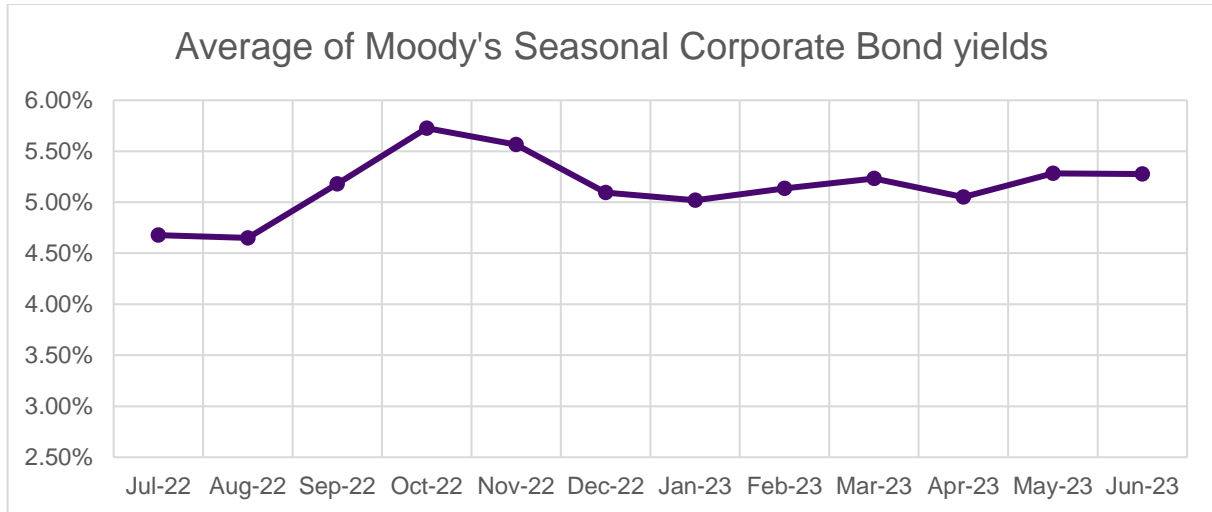
The Tax Cuts and Jobs Act of 2017 amends the requirements of reserves calculated under section 807(d) for taxable years beginning after December 31, 2017. Section 13517 of the act no longer requires reserves to be computed using the greater of the applicable federal interest rate and the prevailing state assumed interest rate. Section 807(d) as amended requires the use of the rate used for statutory reserving, as life insurance reserves for taxable years beginning after December 31, 2017, are determined, in part, based on the reserve computed as required by the National Association of Insurance Commissioners (NAIC) at the time the reserve is determined. We will no longer update the applicable federal interest rate due to this change.

VM-20 was adopted with an effective date of January 1, 2017. Companies were given a three-year window to adopt VM-20, with mandatory adoption by January 1, 2020. VM-20 prescribes the interest rates to be used when valuing certain life insurance products issued after the mandatory adoption date or company adoption date, if earlier.

The Consolidated Appropriations Act of 2021 was passed December 27, 2020, and changes the rates used for section 7702 testing of life insurance contracts for issues on or after January 1, 2021. The rate used for the Cash Value Accumulation Test is also the minimum for the nonforfeiture interest rate for life insurance under VM-02. This document reflects that change.

Section 2: Key results

Bond yields rose in the second half of 2022 and then remained between 5% and 5.5% in the first half of 2023.



Highlights include:

- Under VM-20, statutory valuation interest rates for life insurance products that are categorized as term or universal life still in the secondary guarantee period are different from interest rates for other life insurance products.
- The maximum statutory valuation interest rate for calendar year 2024 issues of whole life insurance products (i.e., life insurance products with guarantee duration of more than 20 years) remained level at 3.00%
- The nonforfeiture interest rate for calendar year 2024 issues of life insurance is 4.00% for products with guarantee duration of 20 years or less and 3.75% for products with guarantee duration of more than 20 years.
- The maximum statutory valuation interest rates for calendar year 2023 issues of annuities and guaranteed interest contracts (not subject to VM-22) increased 25 to 175 basis points, to 3.25% to 5.25%, depending on type and guarantee duration.

Section 3: Statutory calculations

The 1980 amendments to the Standard Valuation and Nonforfeiture Laws provide for dynamic valuation interest rates. As a result, the maximum statutory valuation rate and nonforfeiture interest rate will vary from year to year depending on published corporate bond yield averages.

The maximum statutory valuation interest rates for some typical life insurance and annuity products are as follows:

Maximum statutory valuation interest rates for typical life and annuity products			
Year of issue	Whole life insurance	Typical single premium deferred annuity	Single premium immediate annuity
1995	4.50%	6.00%	7.25%
1996	4.50%	5.50%	6.75%
1997	4.50%	5.50%	6.75%
1998	4.50%	5.25%	6.25%
1999	4.50%	5.25%	6.25%
2000	4.50%	5.75%	7.00%
2001	4.50%	5.50%	6.75%
2002	4.50%	5.50%	6.50%
2003	4.50%	5.00%	6.00%
2004	4.50%	4.75%	5.50%
2005	4.50%	4.50%	5.25%
2006	4.00%	4.50%	5.25%
2007	4.00%	4.75%	5.50%
2008	4.00%	4.75%	5.50%
2009	4.00%	5.00%	6.00%
2010	4.00%	4.50%	5.25%
2011	4.00%	4.25%	5.00%
2012	4.00%	3.75%	4.25%
2013	3.50%	3.75%	4.00%
2014	3.50%	4.00%	4.50%
2015	3.50%	3.75%	4.00%
2016	3.50%	3.75%	4.00%
2017	3.50%	3.50%	3.75%
2018	3.50%	3.50%	3.75%
2019	3.50%	3.75%	n/a
2020	3.50%	n/a	n/a
2021	3.00%	n/a	n/a
2022	3.00%	n/a	n/a
2023	3.00%	n/a	n/a
2024	3.00%	n/a	n/a

In the table above, whole life insurance is based on the guarantee duration of more than 20 years, and the typical single premium deferred annuity (SPDA) is based on annuities with cash settlements without interest guarantees on considerations received more than one year after issue (i.e., Type C) and a guarantee duration of five years or less. Beginning January 1, 2018, the single premium immediate annuity (SPIA) rates are determined either daily or quarterly pursuant to VM-22.

The maximum statutory valuation interest rates for all life and annuity products issued in 1983 and beyond are found in Appendix 1.

Before the 1980 amendments, the process for changing the maximum valuation interest rate was much more cumbersome, requiring amendments to the Standard Valuation Law, so the valuation interest rate changed less frequently. A summary of maximum statutory valuation interest rates for life insurance policies and annuity contracts issued before 1983 is found in Appendix 2.

Explanation of interest rate calculations

Under the 1980 amendments, maximum statutory valuation interest rates depend on the values of reference interest rates. Reference interest rates vary by product type and guarantee duration. Some reference interest rates for annuity products are calculated using the 12-month arithmetic mean of the composite yield on seasoned corporate bonds, as published by Moody's Investors Service, Inc. (Moody's) for the period ending June 2023. Reference interest rates for all life insurance products and other annuity products are calculated using the lesser of the 12-month and 36-month arithmetic means of the Moody's corporate bond yield indices. The reference interest rates are rounded to the nearest basis point as outlined in an April 13, 1999, American Council of Life Insurers note from William Carroll.

As of June 30, 2023 the corporate bond yield indices had a 12-month mean of 5.16% (165 basis points higher than last year) and a 36-month mean of 3.88% (61 basis points higher than last year).

The reference interest rate is used in specified formulas for calculating the valuation interest rates for various product types. The resulting value is rounded to the nearest 0.25%. For annuity products, this rounded value becomes the new maximum statutory valuation interest rate. For life insurance products, if the rounded value is not at least 0.50% different from the prior year's value, the maximum statutory valuation interest rate remains at the prior year's level.

Under VM-20, the maximum statutory valuation interest rate is adjusted by adding 1.50% for life insurance products where the net premium reserve (NPR) amounts are calculated according to section 3.B.4 (term insurance) or section 3.B.6 (universal life still in the secondary guarantee period). The rate is capped at 125% of the rate determined before the additional 1.50% rounded to the nearest 0.25%.

Nonforfeiture interest rates for life insurance products are calculated by multiplying the maximum statutory valuation interest rate by 125% and rounding to the nearest 0.25%. There is a floor under VM-02 (which was updated in the Consolidated Appropriations Act of 2021). There is a one-year grace

period for nonforfeiture interest rate changes; a new interest rate is optional for the following year but mandatory for the succeeding year.

The nonforfeiture interest rate wording of VM-02 section 3.A creates ambiguity around the appropriate nonforfeiture rates to use for term policies that fall under VM-20 section 3.B.4. Depending on the interpretation, these term policies could use the statutory valuation interest rate defined for the NPR from either VM-20 section 3.C.2.a or section 3.C.2.b when calculating the nonforfeiture interest rate. The rate calculated under section 3.C.2.a would typically be more conservative than the rate calculated under section 3.C.2.b.

VM-22 update

Effective January 1, 2018, the NAIC adopted VM-22, which defines a new method of determining the valuation rate for payout annuities and contracts similar in nature; both group and individual (including both life contingent and term certain only contracts, directly written or assumed through reinsurance) are covered by this section of the Valuation Manual:

- Deferred annuity contracts
- Structured settlements in payout or deferred status
- Payout annuities resulting from settlement options or annuitizations from other contracts
- Supplementary contracts
- Contracts containing other similar fixed-income payment streams, including those attributable to contingent deferred annuities and guaranteed lifetime income benefits once the underlying contract funds are exhausted

The rates are based on a theoretical portfolio credit quality distribution that includes Treasuries, Aa bonds, A bonds and Baa bonds. Expected annual default costs and expected spreads are also considered.

Rates are determined quarterly for less than \$250 million of initial consideration (non-jumbo) and daily for greater than or equal to \$250 million of initial consideration (jumbo). Rates are posted on the NAIC website.

For annuities under VM-22, the premium determination date is generally defined as the date upon which the premium is determined by the insurance company and is committed to by the client, except for supplementary contracts (date of issue) and fixed-income payment streams from contingent deferred annuities and guaranteed living benefits (date the account value becomes zero).

Rates are classified into four valuation rate buckets: A, B, C and D. For contracts without life contingencies, the buckets are based on the reference period (RP) — a certain period of time — as shown in the table below:

RP ≤ 5 years	5 years < RP ≤ 10 years	10 years < RP ≤ 15 years	RP > 15 years
A	B	C	D

Source: NAIC, VM-22

For contracts with life contingencies, the valuation rate buckets are based on the RP and initial age of the annuitant as follows:

Initial age	RP ≤ 5 years	5 years < RP ≤ 10 years	10 years < RP ≤ 15 years	RP > 15 years
90+	A	B	C	D
80 – 89	B	B	C	D
70 – 79	C	C	C	D
<70	D	D	D	D

Source: NAIC, VM-22

Maximum statutory valuation interest rates for future years' issues

The formulas used to determine maximum statutory valuation interest rates for life insurance products generally require large swings in the corporate bond yield indices before a change in the maximum valuation rate will occur.

As stated before, the maximum statutory valuation interest rate for calendar year 2024 issues of whole life insurance products will be 3.00%. For the whole life maximum statutory valuation interest rate to change for calendar year 2025 issues, one of the following scenarios must occur:

Calendar year 2025 whole life valuation interest rate sensitivity	
Target maximum statutory valuation interest rate	Required 12-month mean for July 2023 to June 2024
2.50%	1.92%
3.50%	4.08%

From July 2022 to June 2023, Moody's corporate bond yields have averaged 5.16%. The mean yield over the following 12-month period would need to be at least 4.08% to cause the maximum statutory valuation interest rate to increase to 3.50% for calendar year 2025 issues of whole life insurance policies. Likewise, the mean yield over the following 12-month period would have to decrease to 1.92% to cause a decrease in the maximum statutory valuation interest rate to 2.50% for calendar year 2025 issues of whole life insurance policies.

Appendix 3 presents the results of similar interest rate sensitivity calculations for other products and other magnitudes of change. An example of how to interpret the sensitivity results is also included in Appendix 3.

Section 4: Tax calculations

The Revenue Act of 1987 amended section 807(d)(2)(B) of the Internal Revenue Code (IRC) and set the interest rate used in the calculation of tax reserves as the greater of the applicable federal interest rate or the prevailing maximum statutory valuation rate for the contract's calendar year of issue. The amendment became effective for contracts issued in taxable years beginning after December 31, 1987.

For taxable years before 2018, the applicable federal interest rate was determined annually by the Secretary of the Treasury and was based on federal midterm rates (those with terms greater than three years but not greater than nine years) during the test period, which was the most recent 60-calendar-month period ending before the beginning of the calendar year for which the determination was made. No month prior to September 1986 is included in this calculation.

The Tax Cuts and Jobs Act, section 13517, amended 807(d) for taxable years beginning after December 31, 2017. For years beginning after December 31, 2017, 807(d) no longer requires life insurance reserves to be calculated using the greater of the applicable federal interest rate or the prevailing state assumed interest rate. In accordance with this amendment, the applicable federal interest rate is only provided for taxable years before 2018. For taxable years 2018 and later, the state assumed interest rate is to be used in the tax reserve calculations.

Applicable federal interest rates

Issue year	Rates
1988	7.77%
1989	8.16%
1990	8.37%
1991	8.42%
1992	8.40%
1993	8.10%
1994	7.45%
1995	6.99%
1996	6.63%
1997	6.33%
1998	6.31%
1999	6.30%
2000	6.09%
2001	6.00%
2002	5.71%
2003	5.27%
2004	4.82%
2005	4.44%
2006	3.98%
2007	3.97%
2008	4.06%
2009	4.06%
2010	3.81%
2011	3.46%
2012	2.89%
2013	2.16%
2014	1.79%
2015	1.68%
2016	1.56%
2017	1.46%

Section 5: Reliances and limitations

WTW relied on data and information provided by external parties to develop this report.

The report and appendices are intended to provide information to professionals who are technically competent in the areas addressed. Judgments as to the data and information contained in this report should be made only after studying the report (including appendices) in its entirety. WTW professionals are available to answer any questions about information contained in the report and appendices. It is assumed that users of this report will seek such explanation as to any matter in question.

The prescribed statutory, tax and nonforfeiture interest rates provided in this report are based on WTW's understanding of current law and regulations.

WTW is not responsible for the outcome of any use of the information contained in the report or appendices.

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Appendix 1: Statutory and tax prevailing interest rates for issues since 1983

Reference period ending June 2023

For the tables below, term refers to any life insurance policies or riders that are subject to VM-20 section 3.B.4 for the NPR calculation. The nonforfeiture interest rate wording of VM-02 section 3.A creates ambiguity around the appropriate nonforfeiture rates to use for term policies that fall under this section. Depending on the interpretation, these term policies could use the statutory valuation interest rate defined for the NPR from either VM-20 section 3.C.2.a or section 3.C.2.b when calculating the nonforfeiture interest rate. The rate calculated under section 3.C.2.a would typically be more conservative than the rate calculated under section 3.C.2.b; therefore, we have only shown the rate calculated under section 3.C.2.a in the tables below.

For the tables below, universal life with secondary guarantees (ULSG) refers to any life insurance policies or riders that are subject to VM-20 section 3.B.6 for the NPR calculation. Nonforfeiture rates do not apply to ULSG.

Life insurance products — term and ULSG

Guarantee duration of 10 years or less			
Issue year	Statutory	Tax	Nonforfeiture (Term)
2018	4.75%	n/a	6.00%
2019	4.75%	n/a	6.00%
2020	4.75%	n/a	6.00%
2021	4.00%	n/a	4.00%
2022	4.00%	n/a	4.00%
2023	4.00%	n/a	4.00%
2024	4.00%	n/a	4.00%

Life insurance products — term and ULSG

Guarantee duration of more than 10 years but not more than 20 years			
Issue year	Statutory	Tax	Nonforfeiture (Term)
2018	4.75%	n/a	6.00%
2019	4.75%	n/a	6.00%
2020	4.75%	n/a	6.00%
2021	4.00%	n/a	4.00%
2022	4.00%	n/a	4.00%
2023	4.00%	n/a	4.00%
2024	4.00%	n/a	4.00%

Life insurance products — term and ULSG

Guarantee duration of more than 20 years			
Issue year	Statutory	Tax	Nonforfeiture (Term)
2018	4.50%	n/a	5.75%
2019	4.50%	n/a	5.75%
2020	4.50%	n/a	5.75%
2021	3.75%	n/a	3.75%
2022	3.75%	n/a	3.75%
2023	3.75%	n/a	3.75%
2024	3.75%	n/a	3.75%

Life insurance products (other than term and ULSG)

Guarantee duration of 10 years or less			
Issue year	Statutory	Tax	Nonforfeiture
1983	7.25%	7.25%	9.00%
1984	7.25%	7.25%	9.00%
1985	7.25%	7.25%	9.00%
1986	7.25%	7.25%	9.00%
1987	6.50%	6.50%	8.25%
1988	6.00%	7.77%	7.50%
1989	6.00%	8.16%	7.50%
1990	6.00%	8.37%	7.50%
1991	6.00%	8.42%	7.50%
1992	6.00%	8.40%	7.50%
1993	6.00%	8.10%	7.50%
1994	5.50%	7.45%	7.00%
1995	5.50%	6.99%	7.00%
1996	5.50%	6.63%	7.00%
1997	5.50%	6.33%	7.00%
1998	5.50%	6.31%	7.00%
1999	5.00%	6.30%	6.25%
2000	5.00%	6.09%	6.25%
2001	5.00%	6.00%	6.25%
2002	5.00%	5.71%	6.25%
2003	5.00%	5.27%	6.25%
2004	5.00%	5.00%	6.25%
2005	5.00%	5.00%	6.25%
2006	4.50%	4.50%	5.75%
2007	4.50%	4.50%	5.75%
2008	4.50%	4.50%	5.75%
2009	4.50%	4.50%	5.75%
2010	4.50%	4.50%	5.75%
2011	4.50%	4.50%	5.75%
2012	4.50%	4.50%	5.75%
2013	3.75%	3.75%	4.75%
2014	3.75%	3.75%	4.75%
2015	3.75%	3.75%	4.75%
2016	3.75%	3.75%	4.75%
2017	3.75%	3.75%	4.75%
2018	3.75%	n/a	4.75%
2019	3.75%	n/a	4.75%
2020	3.75%	n/a	4.75%
2021	3.25%	n/a	4.00%
2022	3.25%	n/a	4.00%
2023	3.25%	n/a	4.00%
2024	3.25%	n/a	4.00%

Life insurance products (other than term and ULSG)

Guarantee duration of more than 10 years but not more than 20 years			
Issue year	Statutory	Tax	Nonforfeiture
1983	6.75%	6.75%	8.50%
1984	6.75%	6.75%	8.50%
1985	6.75%	6.75%	8.50%
1986	6.75%	6.75%	8.50%
1987	6.00%	6.00%	7.50%
1988	6.00%	7.77%	7.50%
1989	6.00%	8.16%	7.50%
1990	6.00%	8.37%	7.50%
1991	6.00%	8.42%	7.50%
1992	6.00%	8.40%	7.50%
1993	6.00%	8.10%	7.50%
1994	5.25%	7.45%	6.50%
1995	5.25%	6.99%	6.50%
1996	5.25%	6.63%	6.50%
1997	5.25%	6.33%	6.50%
1998	5.25%	6.31%	6.50%
1999	4.75%	6.30%	6.00%
2000	4.75%	6.09%	6.00%
2001	4.75%	6.00%	6.00%
2002	4.75%	5.71%	6.00%
2003	4.75%	5.27%	6.00%
2004	4.75%	4.82%	6.00%
2005	4.75%	4.75%	6.00%
2006	4.25%	4.25%	5.25%
2007	4.25%	4.25%	5.25%
2008	4.25%	4.25%	5.25%
2009	4.25%	4.25%	5.25%
2010	4.25%	4.25%	5.25%
2011	4.25%	4.25%	5.25%
2012	4.25%	4.25%	5.25%
2013	3.75%	3.75%	4.75%
2014	3.75%	3.75%	4.75%
2015	3.75%	3.75%	4.75%
2016	3.75%	3.75%	4.75%
2017	3.75%	3.75%	4.75%
2018	3.75%	n/a	4.75%
2019	3.75%	n/a	4.75%
2020	3.75%	n/a	4.75%
2021	3.25%	n/a	4.00%
2022	3.25%	n/a	4.00%
2023	3.25%	n/a	4.00%
2024	3.25%	n/a	4.00%

Life insurance products (other than term and ULSG)

Guarantee duration of more than 20 years			
Issue year	Statutory	Tax	Nonforfeiture
1983	6.00%	6.00%	7.50%
1984	6.00%	6.00%	7.50%
1985	6.00%	6.00%	7.50%
1986	6.00%	6.00%	7.50%
1987	5.50%	5.50%	7.00%
1988	5.50%	7.77%	7.00%
1989	5.50%	8.16%	7.00%
1990	5.50%	8.37%	7.00%
1991	5.50%	8.42%	7.00%
1992	5.50%	8.40%	7.00%
1993	5.00%	8.10%	6.25%
1994	5.00%	7.45%	6.25%
1995	4.50%	6.99%	5.75%
1996	4.50%	6.63%	5.75%
1997	4.50%	6.33%	5.75%
1998	4.50%	6.31%	5.75%
1999	4.50%	6.30%	5.75%
2000	4.50%	6.09%	5.75%
2001	4.50%	6.00%	5.75%
2002	4.50%	5.71%	5.75%
2003	4.50%	5.27%	5.75%
2004	4.50%	4.82%	5.75%
2005	4.50%	4.50%	5.75%
2006	4.00%	4.00%	5.00%
2007	4.00%	4.00%	5.00%
2008	4.00%	4.06%	5.00%
2009	4.00%	4.06%	5.00%
2010	4.00%	4.00%	5.00%
2011	4.00%	4.00%	5.00%
2012	4.00%	4.00%	5.00%
2013	3.50%	3.50%	4.50%
2014	3.50%	3.50%	4.50%
2015	3.50%	3.50%	4.50%
2016	3.50%	3.50%	4.50%
2017	3.50%	3.50%	4.50%
2018	3.50%	n/a	4.50%
2019	3.50%	n/a	4.50%
2020	3.50%	n/a	4.50%
2021	3.00%	n/a	3.75%
2022	3.00%	n/a	3.75%
2023	3.00%	n/a	3.75%
2024	3.00%	n/a	3.75%

Single premium immediate annuities

All SPIAs		
Issue year	Statutory	Tax
1983	11.25%	11.25%
1984	11.25%	11.25%
1985	11.00%	11.00%
1986	9.25%	9.25%
1987	8.00%	8.00%
1988	8.75%	8.75%
1989	8.75%	8.75%
1990	8.25%	8.37%
1991	8.25%	8.42%
1992	7.75%	8.40%
1993	7.00%	8.10%
1994	6.50%	7.45%
1995	7.25%	7.25%
1996	6.75%	6.75%
1997	6.75%	6.75%
1998	6.25%	6.31%
1999	6.25%	6.30%
2000	7.00%	7.00%
2001	6.75%	6.75%
2002	6.50%	6.50%
2003	6.00%	6.00%
2004	5.50%	5.50%
2005	5.25%	5.25%
2006	5.25%	5.25%
2007	5.50%	5.50%
2008	5.50%	5.50%
2009	6.00%	6.00%
2010	5.25%	5.25%
2011	5.00%	5.00%
2012	4.25%	4.25%
2013	4.00%	4.00%
2014	4.50%	4.50%
2015	4.00%	4.00%
2016	4.00%	4.00%
2017	3.75%	3.75%
2018+	VM-22	n/a

Annuities with cash settlements

Issue year valuations

With interest guarantees on considerations received more than one year after issue

Guarantee duration of five years or less						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	11.25%	11.25%	9.25%	9.25%	8.25%	8.25%
1984	11.25%	11.25%	9.25%	9.25%	8.00%	8.00%
1985	11.00%	11.00%	9.00%	9.00%	8.00%	8.00%
1986	9.25%	9.25%	7.75%	7.75%	6.75%	6.75%
1987	8.00%	8.00%	6.75%	6.75%	6.25%	6.25%
1988	8.75%	8.75%	7.50%	7.77%	6.75%	7.77%
1989	8.75%	8.75%	7.25%	8.16%	6.50%	8.16%
1990	8.25%	8.37%	7.00%	8.37%	6.25%	8.37%
1991	8.25%	8.42%	7.00%	8.42%	6.25%	8.42%
1992	7.75%	8.40%	6.50%	8.40%	6.00%	8.40%
1993	7.00%	8.10%	6.00%	8.10%	5.50%	8.10%
1994	6.50%	7.45%	5.75%	7.45%	5.25%	7.45%
1995	7.25%	7.25%	6.25%	6.99%	5.75%	6.99%
1996	6.75%	6.75%	5.75%	6.63%	5.25%	6.63%
1997	6.75%	6.75%	5.75%	6.33%	5.25%	6.33%
1998	6.25%	6.31%	5.50%	6.31%	5.00%	6.31%
1999	6.25%	6.30%	5.50%	6.30%	5.00%	6.30%
2000	7.00%	7.00%	6.00%	6.09%	5.50%	6.09%
2001	6.75%	6.75%	5.75%	6.00%	5.25%	6.00%
2002	6.50%	6.50%	5.75%	5.75%	5.25%	5.71%
2003	6.00%	6.00%	5.25%	5.27%	4.75%	5.27%
2004	5.50%	5.50%	5.00%	5.00%	4.75%	4.82%
2005	5.25%	5.25%	4.75%	4.75%	4.50%	4.50%
2006	5.25%	5.25%	4.75%	4.75%	4.50%	4.50%
2007	5.50%	5.50%	4.75%	4.75%	4.50%	4.50%
2008	5.50%	5.50%	5.00%	5.00%	4.50%	4.50%
2009	6.00%	6.00%	5.25%	5.25%	5.00%	5.00%
2010	5.25%	5.25%	4.75%	4.75%	4.25%	4.25%
2011	5.00%	5.00%	4.50%	4.50%	4.25%	4.25%
2012	4.25%	4.25%	4.00%	4.00%	3.75%	3.75%
2013	4.00%	4.00%	3.75%	3.75%	3.50%	3.50%
2014	4.50%	4.50%	4.00%	4.00%	3.75%	3.75%
2015	4.00%	4.00%	3.75%	3.75%	3.50%	3.50%
2016	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2017	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2018	3.75%	n/a	3.75%	n/a	3.50%	n/a
2019	4.00%	n/a	3.75%	n/a	3.75%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.50%	n/a	3.25%	n/a	3.25%	n/a
2023	4.75%	n/a	4.25%	n/a	4.00%	n/a

Annuities with cash settlements
Issue year valuations
With interest guarantees on considerations received more than one year after issue

Guarantee duration of more than five years but not more than 10 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	10.75%	10.75%	9.25%	9.25%	8.25%	8.25%
1984	10.75%	10.75%	9.25%	9.25%	8.00%	8.00%
1985	10.50%	10.50%	9.00%	9.00%	8.00%	8.00%
1986	8.75%	8.75%	7.75%	7.75%	6.75%	6.75%
1987	7.75%	7.75%	6.75%	6.75%	6.25%	6.25%
1988	8.50%	8.50%	7.50%	7.77%	6.75%	7.77%
1989	8.25%	8.25%	7.25%	8.16%	6.50%	8.16%
1990	8.00%	8.37%	7.00%	8.37%	6.25%	8.37%
1991	8.00%	8.42%	7.00%	8.42%	6.25%	8.42%
1992	7.50%	8.40%	6.50%	8.40%	6.00%	8.40%
1993	6.75%	8.10%	6.00%	8.10%	5.50%	8.10%
1994	6.50%	7.45%	5.75%	7.45%	5.25%	7.45%
1995	7.00%	7.00%	6.25%	6.99%	5.75%	6.99%
1996	6.50%	6.63%	5.75%	6.63%	5.25%	6.63%
1997	6.50%	6.50%	5.75%	6.33%	5.25%	6.33%
1998	6.00%	6.31%	5.50%	6.31%	5.00%	6.31%
1999	6.00%	6.30%	5.50%	6.30%	5.00%	6.30%
2000	6.75%	6.75%	6.00%	6.09%	5.50%	6.09%
2001	6.50%	6.50%	5.75%	6.00%	5.25%	6.00%
2002	6.25%	6.25%	5.75%	5.75%	5.25%	5.71%
2003	5.75%	5.75%	5.25%	5.27%	4.75%	5.27%
2004	5.50%	5.50%	5.00%	5.00%	4.75%	4.82%
2005	5.00%	5.00%	4.75%	4.75%	4.50%	4.50%
2006	5.25%	5.25%	4.75%	4.75%	4.50%	4.50%
2007	5.25%	5.25%	4.75%	4.75%	4.50%	4.50%
2008	5.50%	5.50%	5.00%	5.00%	4.50%	4.50%
2009	5.75%	5.75%	5.25%	5.25%	5.00%	5.00%
2010	5.00%	5.00%	4.75%	4.75%	4.25%	4.25%
2011	4.75%	4.75%	4.50%	4.50%	4.25%	4.25%
2012	4.25%	4.25%	4.00%	4.00%	3.75%	3.75%
2013	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2014	4.25%	4.25%	4.00%	4.00%	3.75%	3.75%
2015	4.00%	4.00%	3.75%	3.75%	3.50%	3.50%
2016	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2017	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2018	3.75%	n/a	3.75%	n/a	3.50%	n/a
2019	4.00%	n/a	3.75%	n/a	3.75%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.50%	n/a	3.25%	n/a	3.25%	n/a
2023	4.50%	n/a	4.25%	n/a	4.00%	n/a

Annuities with cash settlements

Issue year valuations

With interest guarantees on considerations received more than one year after issue

Guarantee duration of more than 10 years but not more than 20 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	8.25%	8.25%	7.00%	7.00%	6.75%	6.75%
1984	8.25%	8.25%	7.00%	7.00%	6.75%	6.75%
1985	8.25%	8.25%	7.00%	7.00%	6.50%	6.50%
1986	7.50%	7.50%	6.50%	6.50%	6.00%	6.00%
1987	7.00%	7.00%	6.00%	6.00%	5.75%	5.75%
1988	7.25%	7.77%	6.25%	7.77%	6.00%	7.77%
1989	7.25%	8.16%	6.25%	8.16%	6.00%	8.16%
1990	7.00%	8.37%	6.25%	8.37%	5.75%	8.37%
1991	7.00%	8.42%	6.25%	8.42%	5.75%	8.42%
1992	6.75%	8.40%	6.00%	8.40%	5.75%	8.40%
1993	6.25%	8.10%	5.50%	8.10%	5.25%	8.10%
1994	6.00%	7.45%	5.25%	7.45%	5.00%	7.45%
1995	6.25%	6.99%	5.50%	6.99%	5.25%	6.99%
1996	6.00%	6.63%	5.25%	6.63%	5.00%	6.63%
1997	6.00%	6.33%	5.25%	6.33%	5.25%	6.33%
1998	5.75%	6.31%	5.00%	6.31%	4.75%	6.31%
1999	5.50%	6.30%	5.00%	6.30%	4.75%	6.30%
2000	5.75%	6.09%	5.25%	6.09%	5.00%	6.09%
2001	6.00%	6.00%	5.25%	6.00%	5.00%	6.00%
2002	6.00%	6.00%	5.25%	5.71%	5.00%	5.71%
2003	5.50%	5.50%	4.75%	5.27%	4.75%	5.27%
2004	5.00%	5.00%	4.75%	4.82%	4.50%	4.82%
2005	4.75%	4.75%	4.50%	4.50%	4.25%	4.44%
2006	4.75%	4.75%	4.50%	4.50%	4.25%	4.25%
2007	4.75%	4.75%	4.50%	4.50%	4.25%	4.25%
2008	5.00%	5.00%	4.50%	4.50%	4.25%	4.25%
2009	5.25%	5.25%	4.75%	4.75%	4.50%	4.50%
2010	4.75%	4.75%	4.25%	4.25%	4.25%	4.25%
2011	4.50%	4.50%	4.25%	4.25%	4.00%	4.00%
2012	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2013	3.75%	3.75%	3.50%	3.50%	3.50%	3.50%
2014	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2015	3.75%	3.75%	3.50%	3.50%	3.50%	3.50%
2016	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2017	3.75%	3.75%	3.50%	3.50%	3.50%	3.50%
2018	3.75%	n/a	3.50%	n/a	3.50%	n/a
2019	3.75%	n/a	3.50%	n/a	3.50%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.25%	n/a	3.25%	n/a	3.00%	n/a
2023	3.50%	n/a	3.50%	n/a	3.50%	n/a

Annuities with cash settlements
Issue year valuations
With interest guarantees on considerations received more than one year after issue

Guarantee duration of more than 20 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	6.75%	6.75%	5.75%	5.75%	5.75%	5.75%
1984	6.75%	6.75%	5.75%	5.75%	5.75%	5.75%
1985	6.50%	6.50%	5.75%	5.75%	5.75%	5.75%
1986	6.00%	6.00%	5.50%	5.50%	5.50%	5.50%
1987	5.75%	5.75%	5.25%	5.25%	5.25%	5.25%
1988	6.00%	7.77%	5.25%	7.77%	5.25%	7.77%
1989	6.00%	8.16%	5.25%	8.16%	5.25%	8.16%
1990	5.75%	8.37%	5.25%	8.37%	5.25%	8.37%
1991	5.75%	8.42%	5.25%	8.42%	5.25%	8.42%
1992	5.75%	8.40%	5.00%	8.40%	5.00%	8.40%
1993	5.25%	8.10%	4.75%	8.10%	4.75%	8.10%
1994	5.00%	7.45%	4.50%	7.45%	4.50%	7.45%
1995	5.25%	6.99%	4.75%	6.99%	4.75%	6.99%
1996	5.00%	6.63%	4.50%	6.63%	4.50%	6.63%
1997	5.25%	6.33%	4.75%	6.33%	4.75%	6.33%
1998	4.75%	6.31%	4.50%	6.31%	4.50%	6.31%
1999	4.75%	6.30%	4.50%	6.30%	4.50%	6.30%
2000	5.00%	6.09%	4.50%	6.09%	4.50%	6.09%
2001	5.00%	6.00%	4.50%	6.00%	4.50%	6.00%
2002	5.00%	5.71%	4.50%	5.71%	4.50%	5.71%
2003	4.75%	5.27%	4.25%	5.27%	4.25%	5.27%
2004	4.50%	4.82%	4.25%	4.82%	4.25%	4.82%
2005	4.25%	4.44%	4.00%	4.44%	4.00%	4.44%
2006	4.25%	4.25%	4.00%	4.00%	4.00%	4.00%
2007	4.25%	4.25%	4.00%	4.00%	4.00%	4.00%
2008	4.25%	4.25%	4.00%	4.06%	4.00%	4.06%
2009	4.50%	4.50%	4.25%	4.25%	4.25%	4.25%
2010	4.25%	4.25%	4.00%	4.00%	4.00%	4.00%
2011	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2012	3.75%	3.75%	3.50%	3.50%	3.50%	3.50%
2013	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
2014	3.75%	3.75%	3.50%	3.50%	3.50%	3.50%
2015	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
2016	3.75%	3.75%	3.50%	3.50%	3.50%	3.50%
2017	3.50%	3.50%	3.25%	3.25%	3.25%	3.25%
2018	3.50%	n/a	3.25%	n/a	3.25%	n/a
2019	3.50%	n/a	3.50%	n/a	3.50%	n/a
2020	3.25%	n/a	3.00%	n/a	3.00%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.00%	n/a	3.00%	n/a	3.00%	n/a
2023	3.50%	n/a	3.25%	n/a	3.25%	n/a

Annuities with cash settlements
Issue year valuations
Without interest guarantees on considerations received more than one year after issue

Guarantee duration of five years or less						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	11.75%	11.75%	9.75%	9.75%	8.75%	8.75%
1984	11.75%	11.75%	9.75%	9.75%	8.50%	8.50%
1985	11.50%	11.50%	9.50%	9.50%	8.50%	8.50%
1986	9.50%	9.50%	8.00%	8.00%	7.25%	7.25%
1987	8.50%	8.50%	7.25%	7.25%	6.50%	6.50%
1988	9.25%	9.25%	7.75%	7.77%	7.00%	7.77%
1989	9.00%	9.00%	7.50%	8.16%	7.00%	8.16%
1990	8.50%	8.50%	7.25%	8.37%	6.50%	8.37%
1991	8.75%	8.75%	7.25%	8.42%	6.75%	8.42%
1992	8.00%	8.40%	6.75%	8.40%	6.25%	8.40%
1993	7.25%	8.10%	6.25%	8.10%	5.75%	8.10%
1994	6.75%	7.45%	6.00%	7.45%	5.50%	7.45%
1995	7.50%	7.50%	6.50%	6.99%	6.00%	6.99%
1996	6.75%	6.75%	6.00%	6.63%	5.50%	6.63%
1997	7.00%	7.00%	6.00%	6.33%	5.50%	6.33%
1998	6.50%	6.50%	5.75%	6.31%	5.25%	6.31%
1999	6.25%	6.30%	5.50%	6.30%	5.25%	6.30%
2000	7.25%	7.25%	6.25%	6.25%	5.75%	6.09%
2001	7.00%	7.00%	6.00%	6.00%	5.50%	6.00%
2002	6.75%	6.75%	6.00%	6.00%	5.50%	5.71%
2003	6.25%	6.25%	5.50%	5.50%	5.00%	5.27%
2004	5.75%	5.75%	5.00%	5.00%	4.75%	4.82%
2005	5.25%	5.25%	4.75%	4.75%	4.50%	4.50%
2006	5.50%	5.50%	4.75%	4.75%	4.50%	4.50%
2007	5.50%	5.50%	5.00%	5.00%	4.75%	4.75%
2008	5.75%	5.75%	5.00%	5.00%	4.75%	4.75%
2009	6.25%	6.25%	5.50%	5.50%	5.00%	5.00%
2010	5.25%	5.25%	4.75%	4.75%	4.50%	4.50%
2011	5.00%	5.00%	4.50%	4.50%	4.25%	4.25%
2012	4.25%	4.25%	4.00%	4.00%	3.75%	3.75%
2013	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2014	4.50%	4.50%	4.00%	4.00%	4.00%	4.00%
2015	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2016	4.25%	4.25%	4.00%	4.00%	3.75%	3.75%
2017	4.00%	4.00%	3.75%	3.75%	3.50%	3.50%
2018	4.00%	n/a	3.75%	n/a	3.50%	n/a
2019	4.00%	n/a	3.75%	n/a	3.75%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.50%	n/a	3.25%	n/a	3.25%	n/a
2023	4.75%	n/a	4.50%	n/a	4.25%	n/a

Annuities with cash settlements
Issue year valuations
Without interest guarantees on considerations received more than one year after issue

Guarantee duration of more than five years but not more than 10 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	11.25%	11.25%	9.75%	9.75%	8.75%	8.75%
1984	11.25%	11.25%	9.75%	9.75%	8.50%	8.50%
1985	11.00%	11.00%	9.50%	9.50%	8.50%	8.50%
1986	9.25%	9.25%	8.00%	8.00%	7.25%	7.25%
1987	8.00%	8.00%	7.25%	7.25%	6.50%	6.50%
1988	8.75%	8.75%	7.75%	7.77%	7.00%	7.77%
1989	8.75%	8.75%	7.50%	8.16%	7.00%	8.16%
1990	8.25%	8.37%	7.25%	8.37%	6.50%	8.37%
1991	8.25%	8.42%	7.25%	8.42%	6.75%	8.42%
1992	7.75%	8.40%	6.75%	8.40%	6.25%	8.40%
1993	7.00%	8.10%	6.25%	8.10%	5.75%	8.10%
1994	6.50%	7.45%	6.00%	7.45%	5.50%	7.45%
1995	7.25%	7.25%	6.50%	6.99%	6.00%	6.99%
1996	6.75%	6.75%	6.00%	6.63%	5.50%	6.63%
1997	6.75%	6.75%	6.00%	6.33%	5.50%	6.33%
1998	6.25%	6.31%	5.75%	6.31%	5.25%	6.31%
1999	6.25%	6.30%	5.50%	6.30%	5.25%	6.30%
2000	7.00%	7.00%	6.25%	6.25%	5.75%	6.09%
2001	6.75%	6.75%	6.00%	6.00%	5.50%	6.00%
2002	6.50%	6.50%	6.00%	6.00%	5.50%	5.71%
2003	6.00%	6.00%	5.50%	5.50%	5.00%	5.27%
2004	5.50%	5.50%	5.00%	5.00%	4.75%	4.82%
2005	5.25%	5.25%	4.75%	4.75%	4.50%	4.50%
2006	5.25%	5.25%	4.75%	4.75%	4.50%	4.50%
2007	5.50%	5.50%	5.00%	5.00%	4.75%	4.75%
2008	5.50%	5.50%	5.00%	5.00%	4.75%	4.75%
2009	6.00%	6.00%	5.50%	5.50%	5.00%	5.00%
2010	5.25%	5.25%	4.75%	4.75%	4.50%	4.50%
2011	5.00%	5.00%	4.50%	4.50%	4.25%	4.25%
2012	4.25%	4.25%	4.00%	4.00%	3.75%	3.75%
2013	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2014	4.50%	4.50%	4.00%	4.00%	4.00%	4.00%
2015	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2016	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2017	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2018	3.75%	n/a	3.75%	n/a	3.50%	n/a
2019	4.00%	n/a	3.75%	n/a	3.75%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.50%	n/a	3.25%	n/a	3.25%	n/a
2023	4.75%	n/a	4.50%	n/a	4.25%	n/a

Annuities with cash settlements
Issue year valuations
Without interest guarantees on considerations received more than one year after issue

Guarantee duration of more than 10 years but not more than 20 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	8.75%	8.75%	7.50%	7.50%	7.00%	7.00%
1984	8.75%	8.75%	7.50%	7.50%	7.00%	7.00%
1985	8.50%	8.50%	7.50%	7.50%	7.00%	7.00%
1986	7.75%	7.75%	6.75%	6.75%	6.50%	6.50%
1987	7.25%	7.25%	6.50%	6.50%	6.00%	6.00%
1988	7.50%	7.77%	6.50%	7.77%	6.25%	7.77%
1989	7.50%	8.16%	6.50%	8.16%	6.25%	8.16%
1990	7.50%	8.37%	6.50%	8.37%	6.25%	8.37%
1991	7.50%	8.42%	6.50%	8.42%	6.25%	8.42%
1992	7.00%	8.40%	6.25%	8.40%	6.00%	8.40%
1993	6.50%	8.10%	5.75%	8.10%	5.50%	8.10%
1994	6.25%	7.45%	5.50%	7.45%	5.25%	7.45%
1995	6.50%	6.99%	5.75%	6.99%	5.50%	6.99%
1996	6.25%	6.63%	5.50%	6.63%	5.25%	6.63%
1997	6.25%	6.33%	5.50%	6.33%	5.25%	6.33%
1998	6.00%	6.31%	5.25%	6.31%	5.00%	6.31%
1999	5.75%	6.30%	5.25%	6.30%	5.00%	6.30%
2000	6.00%	6.09%	5.50%	6.09%	5.25%	6.09%
2001	6.25%	6.25%	5.50%	6.00%	5.25%	6.00%
2002	6.00%	6.00%	5.50%	5.71%	5.25%	5.71%
2003	5.50%	5.50%	5.00%	5.27%	4.75%	5.27%
2004	5.25%	5.25%	4.75%	4.82%	4.75%	4.82%
2005	5.00%	5.00%	4.50%	4.50%	4.50%	4.50%
2006	5.00%	5.00%	4.50%	4.50%	4.50%	4.50%
2007	5.00%	5.00%	4.50%	4.50%	4.50%	4.50%
2008	5.00%	5.00%	4.75%	4.75%	4.50%	4.50%
2009	5.25%	5.25%	4.75%	4.75%	4.75%	4.75%
2010	5.00%	5.00%	4.50%	4.50%	4.25%	4.25%
2011	4.75%	4.75%	4.25%	4.25%	4.25%	4.25%
2012	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2013	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2014	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2015	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2016	4.00%	4.00%	3.75%	3.75%	3.75%	3.75%
2017	3.75%	3.75%	3.50%	3.50%	3.50%	3.50%
2018	3.75%	n/a	3.50%	n/a	3.50%	n/a
2019	3.75%	n/a	3.75%	n/a	3.50%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.25%	n/a	3.25%	n/a	3.25%	n/a
2023	3.50%	n/a	3.50%	n/a	3.50%	n/a

Annuities with cash settlements
Issue year valuations
Without interest guarantees on considerations received more than one year after issue

Guarantee duration of more than 20 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	7.00%	7.00%	6.25%	6.25%	6.25%	6.25%
1984	7.00%	7.00%	6.25%	6.25%	6.25%	6.25%
1985	7.00%	7.00%	6.25%	6.25%	6.25%	6.25%
1986	6.50%	6.50%	5.75%	5.75%	5.75%	5.75%
1987	6.00%	6.00%	5.50%	5.50%	5.50%	5.50%
1988	6.25%	7.77%	5.75%	7.77%	5.75%	7.77%
1989	6.25%	8.16%	5.50%	8.16%	5.50%	8.16%
1990	6.25%	8.37%	5.50%	8.37%	5.50%	8.37%
1991	6.25%	8.42%	5.50%	8.42%	5.50%	8.42%
1992	6.00%	8.40%	5.25%	8.40%	5.25%	8.40%
1993	5.50%	8.10%	5.00%	8.10%	5.00%	8.10%
1994	5.25%	7.45%	4.75%	7.45%	4.75%	7.45%
1995	5.50%	6.99%	5.00%	6.99%	5.00%	6.99%
1996	5.25%	6.63%	4.75%	6.63%	4.75%	6.63%
1997	5.25%	6.33%	5.00%	6.33%	5.00%	6.33%
1998	5.00%	6.31%	4.75%	6.31%	4.75%	6.31%
1999	5.00%	6.30%	4.50%	6.30%	4.50%	6.30%
2000	5.25%	6.09%	4.75%	6.09%	4.75%	6.09%
2001	5.25%	6.00%	4.75%	6.00%	4.75%	6.00%
2002	5.25%	5.71%	4.75%	5.71%	4.75%	5.71%
2003	4.75%	5.27%	4.50%	5.27%	4.50%	5.27%
2004	4.75%	4.82%	4.25%	4.82%	4.25%	4.82%
2005	4.50%	4.50%	4.00%	4.44%	4.00%	4.44%
2006	4.50%	4.50%	4.25%	4.25%	4.25%	4.25%
2007	4.50%	4.50%	4.25%	4.25%	4.25%	4.25%
2008	4.50%	4.50%	4.25%	4.25%	4.25%	4.25%
2009	4.75%	4.75%	4.25%	4.25%	4.25%	4.25%
2010	4.25%	4.25%	4.00%	4.00%	4.00%	4.00%
2011	4.25%	4.25%	4.00%	4.00%	4.00%	4.00%
2012	3.75%	3.75%	3.50%	3.50%	3.50%	3.50%
2013	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
2014	3.75%	3.75%	3.50%	3.50%	3.50%	3.50%
2015	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
2016	3.75%	3.75%	3.50%	3.50%	3.50%	3.50%
2017	3.50%	3.50%	3.50%	3.50%	3.50%	3.50%
2018	3.50%	n/a	3.50%	n/a	3.50%	n/a
2019	3.50%	n/a	3.50%	n/a	3.50%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.25%	n/a	3.00%	n/a	3.00%	n/a
2023	3.50%	n/a	3.25%	n/a	3.25%	n/a

Annuities without cash settlements

Issue year valuations

With or without interest guarantees on considerations received more than one year after issue

Guarantee duration of five years or less						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	11.25%	11.25%	n/a	n/a	n/a	n/a
1984	11.25%	11.25%	n/a	n/a	n/a	n/a
1985	11.00%	11.00%	n/a	n/a	n/a	n/a
1986	9.25%	9.25%	n/a	n/a	n/a	n/a
1987	8.00%	8.00%	n/a	n/a	n/a	n/a
1988	8.75%	8.75%	n/a	n/a	n/a	n/a
1989	8.75%	8.75%	n/a	n/a	n/a	n/a
1990	8.25%	8.37%	n/a	n/a	n/a	n/a
1991	8.25%	8.42%	n/a	n/a	n/a	n/a
1992	7.75%	8.40%	n/a	n/a	n/a	n/a
1993	7.00%	8.10%	n/a	n/a	n/a	n/a
1994	6.50%	7.45%	n/a	n/a	n/a	n/a
1995	7.25%	7.25%	n/a	n/a	n/a	n/a
1996	6.75%	6.75%	n/a	n/a	n/a	n/a
1997	6.75%	6.75%	n/a	n/a	n/a	n/a
1998	6.25%	6.31%	n/a	n/a	n/a	n/a
1999	6.25%	6.30%	n/a	n/a	n/a	n/a
2000	7.00%	7.00%	n/a	n/a	n/a	n/a
2001	6.75%	6.75%	n/a	n/a	n/a	n/a
2002	6.50%	6.50%	n/a	n/a	n/a	n/a
2003	6.00%	6.00%	n/a	n/a	n/a	n/a
2004	5.50%	5.50%	n/a	n/a	n/a	n/a
2005	5.25%	5.25%	n/a	n/a	n/a	n/a
2006	5.25%	5.25%	n/a	n/a	n/a	n/a
2007	5.50%	5.50%	n/a	n/a	n/a	n/a
2008	5.50%	5.50%	n/a	n/a	n/a	n/a
2009	6.00%	6.00%	n/a	n/a	n/a	n/a
2010	5.25%	5.25%	n/a	n/a	n/a	n/a
2011	5.00%	5.00%	n/a	n/a	n/a	n/a
2012	4.25%	4.25%	n/a	n/a	n/a	n/a
2013	4.00%	4.00%	n/a	n/a	n/a	n/a
2014	4.50%	4.50%	n/a	n/a	n/a	n/a
2015	4.00%	4.00%	n/a	n/a	n/a	n/a
2016	4.00%	4.00%	n/a	n/a	n/a	n/a
2017	3.75%	3.75%	n/a	n/a	n/a	n/a
2018	3.75%	n/a	n/a	n/a	n/a	n/a
2019	4.00%	n/a	n/a	n/a	n/a	n/a
2020	3.25%	n/a	n/a	n/a	n/a	n/a
2021	3.00%	n/a	n/a	n/a	n/a	n/a
2022	3.50%	n/a	n/a	n/a	n/a	n/a
2023	4.75%	n/a	n/a	n/a	n/a	n/a

Annuities without cash settlements**Issue year valuations****With or without interest guarantees on considerations received more than one year after issue**

Guarantee duration of more than five years but not more than 10 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	10.75%	10.75%	n/a	n/a	n/a	n/a
1984	10.75%	10.75%	n/a	n/a	n/a	n/a
1985	10.50%	10.50%	n/a	n/a	n/a	n/a
1986	8.75%	8.75%	n/a	n/a	n/a	n/a
1987	7.75%	7.75%	n/a	n/a	n/a	n/a
1988	8.50%	8.50%	n/a	n/a	n/a	n/a
1989	8.25%	8.25%	n/a	n/a	n/a	n/a
1990	8.00%	8.37%	n/a	n/a	n/a	n/a
1991	8.00%	8.42%	n/a	n/a	n/a	n/a
1992	7.50%	8.40%	n/a	n/a	n/a	n/a
1993	6.75%	8.10%	n/a	n/a	n/a	n/a
1994	6.50%	7.45%	n/a	n/a	n/a	n/a
1995	7.00%	7.00%	n/a	n/a	n/a	n/a
1996	6.50%	6.63%	n/a	n/a	n/a	n/a
1997	6.50%	6.50%	n/a	n/a	n/a	n/a
1998	6.00%	6.31%	n/a	n/a	n/a	n/a
1999	6.00%	6.30%	n/a	n/a	n/a	n/a
2000	6.75%	6.75%	n/a	n/a	n/a	n/a
2001	6.50%	6.50%	n/a	n/a	n/a	n/a
2002	6.25%	6.25%	n/a	n/a	n/a	n/a
2003	5.75%	5.75%	n/a	n/a	n/a	n/a
2004	5.50%	5.50%	n/a	n/a	n/a	n/a
2005	5.00%	5.00%	n/a	n/a	n/a	n/a
2006	5.25%	5.25%	n/a	n/a	n/a	n/a
2007	5.25%	5.25%	n/a	n/a	n/a	n/a
2008	5.50%	5.50%	n/a	n/a	n/a	n/a
2009	5.75%	5.75%	n/a	n/a	n/a	n/a
2010	5.00%	5.00%	n/a	n/a	n/a	n/a
2011	4.75%	4.75%	n/a	n/a	n/a	n/a
2012	4.25%	4.25%	n/a	n/a	n/a	n/a
2013	3.75%	3.75%	n/a	n/a	n/a	n/a
2014	4.25%	4.25%	n/a	n/a	n/a	n/a
2015	4.00%	4.00%	n/a	n/a	n/a	n/a
2016	4.00%	4.00%	n/a	n/a	n/a	n/a
2017	3.75%	3.75%	n/a	n/a	n/a	n/a
2018	3.75%	n/a	n/a	n/a	n/a	n/a
2019	4.00%	n/a	n/a	n/a	n/a	n/a
2020	3.25%	n/a	n/a	n/a	n/a	n/a
2021	3.00%	n/a	n/a	n/a	n/a	n/a
2022	3.50%	n/a	n/a	n/a	n/a	n/a
2023	4.50%	n/a	n/a	n/a	n/a	n/a

Annuities without cash settlements

Issue year valuations

With or without interest guarantees on considerations received more than one year after issue

Guarantee duration of more than 10 years but not more than 20 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	9.75%	9.75%	n/a	n/a	n/a	n/a
1984	9.75%	9.75%	n/a	n/a	n/a	n/a
1985	9.50%	9.50%	n/a	n/a	n/a	n/a
1986	8.00%	8.00%	n/a	n/a	n/a	n/a
1987	7.25%	7.25%	n/a	n/a	n/a	n/a
1988	7.75%	7.77%	n/a	n/a	n/a	n/a
1989	7.50%	8.16%	n/a	n/a	n/a	n/a
1990	7.25%	8.37%	n/a	n/a	n/a	n/a
1991	7.25%	8.42%	n/a	n/a	n/a	n/a
1992	6.75%	8.40%	n/a	n/a	n/a	n/a
1993	6.25%	8.10%	n/a	n/a	n/a	n/a
1994	6.00%	7.45%	n/a	n/a	n/a	n/a
1995	6.50%	6.99%	n/a	n/a	n/a	n/a
1996	6.00%	6.63%	n/a	n/a	n/a	n/a
1997	6.00%	6.33%	n/a	n/a	n/a	n/a
1998	5.75%	6.31%	n/a	n/a	n/a	n/a
1999	5.50%	6.30%	n/a	n/a	n/a	n/a
2000	6.25%	6.25%	n/a	n/a	n/a	n/a
2001	6.00%	6.00%	n/a	n/a	n/a	n/a
2002	6.00%	6.00%	n/a	n/a	n/a	n/a
2003	5.50%	5.50%	n/a	n/a	n/a	n/a
2004	5.00%	5.00%	n/a	n/a	n/a	n/a
2005	4.75%	4.75%	n/a	n/a	n/a	n/a
2006	4.75%	4.75%	n/a	n/a	n/a	n/a
2007	5.00%	5.00%	n/a	n/a	n/a	n/a
2008	5.00%	5.00%	n/a	n/a	n/a	n/a
2009	5.50%	5.50%	n/a	n/a	n/a	n/a
2010	4.75%	4.75%	n/a	n/a	n/a	n/a
2011	4.50%	4.50%	n/a	n/a	n/a	n/a
2012	4.00%	4.00%	n/a	n/a	n/a	n/a
2013	3.75%	3.75%	n/a	n/a	n/a	n/a
2014	4.00%	4.00%	n/a	n/a	n/a	n/a
2015	3.75%	3.75%	n/a	n/a	n/a	n/a
2016	4.00%	4.00%	n/a	n/a	n/a	n/a
2017	3.75%	3.75%	n/a	n/a	n/a	n/a
2018	3.75%	n/a	n/a	n/a	n/a	n/a
2019	3.75%	n/a	n/a	n/a	n/a	n/a
2020	3.25%	n/a	n/a	n/a	n/a	n/a
2021	3.00%	n/a	n/a	n/a	n/a	n/a
2022	3.25%	n/a	n/a	n/a	n/a	n/a
2023	4.50%	n/a	n/a	n/a	n/a	n/a

Annuities without cash settlements**Issue year valuations****With or without interest guarantees on considerations received more than one year after issue**

Guarantee duration of more than 20 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	7.75%	7.75%	n/a	n/a	n/a	n/a
1984	7.50%	7.50%	n/a	n/a	n/a	n/a
1985	7.50%	7.50%	n/a	n/a	n/a	n/a
1986	6.50%	6.50%	n/a	n/a	n/a	n/a
1987	6.00%	6.00%	n/a	n/a	n/a	n/a
1988	6.25%	7.77%	n/a	n/a	n/a	n/a
1989	6.25%	8.16%	n/a	n/a	n/a	n/a
1990	6.00%	8.37%	n/a	n/a	n/a	n/a
1991	6.00%	8.42%	n/a	n/a	n/a	n/a
1992	5.75%	8.40%	n/a	n/a	n/a	n/a
1993	5.25%	8.10%	n/a	n/a	n/a	n/a
1994	5.00%	7.45%	n/a	n/a	n/a	n/a
1995	5.50%	6.99%	n/a	n/a	n/a	n/a
1996	5.00%	6.63%	n/a	n/a	n/a	n/a
1997	5.25%	6.33%	n/a	n/a	n/a	n/a
1998	4.75%	6.31%	n/a	n/a	n/a	n/a
1999	4.75%	6.30%	n/a	n/a	n/a	n/a
2000	5.25%	6.09%	n/a	n/a	n/a	n/a
2001	5.00%	6.00%	n/a	n/a	n/a	n/a
2002	5.00%	5.71%	n/a	n/a	n/a	n/a
2003	4.75%	5.27%	n/a	n/a	n/a	n/a
2004	4.50%	4.82%	n/a	n/a	n/a	n/a
2005	4.25%	4.44%	n/a	n/a	n/a	n/a
2006	4.25%	4.25%	n/a	n/a	n/a	n/a
2007	4.25%	4.25%	n/a	n/a	n/a	n/a
2008	4.50%	4.50%	n/a	n/a	n/a	n/a
2009	4.75%	4.75%	n/a	n/a	n/a	n/a
2010	4.25%	4.25%	n/a	n/a	n/a	n/a
2011	4.00%	4.00%	n/a	n/a	n/a	n/a
2012	3.75%	3.75%	n/a	n/a	n/a	n/a
2013	3.50%	3.50%	n/a	n/a	n/a	n/a
2014	3.75%	3.75%	n/a	n/a	n/a	n/a
2015	3.50%	3.50%	n/a	n/a	n/a	n/a
2016	3.75%	3.75%	n/a	n/a	n/a	n/a
2017	3.50%	3.50%	n/a	n/a	n/a	n/a
2018	3.50%	n/a	n/a	n/a	n/a	n/a
2019	3.50%	n/a	n/a	n/a	n/a	n/a
2020	3.25%	n/a	n/a	n/a	n/a	n/a
2021	3.00%	n/a	n/a	n/a	n/a	n/a
2022	3.25%	n/a	n/a	n/a	n/a	n/a
2023	4.00%	n/a	n/a	n/a	n/a	n/a

Annuities with cash settlements
Change in fund valuations
With interest guarantees on considerations received more than one year after issue

Guarantee duration of five years or less						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	12.75%	12.75%	11.75%	11.75%	8.75%	8.75%
1984	12.75%	12.75%	11.75%	11.75%	8.50%	8.50%
1985	12.50%	12.50%	11.50%	11.50%	8.50%	8.50%
1986	10.25%	10.25%	9.50%	9.50%	7.25%	7.25%
1987	9.00%	9.00%	8.50%	8.50%	6.50%	6.50%
1988	10.00%	10.00%	9.25%	9.25%	7.00%	7.77%
1989	9.75%	9.75%	9.00%	9.00%	7.00%	8.16%
1990	9.25%	9.25%	8.50%	8.50%	6.50%	8.37%
1991	9.25%	9.25%	8.75%	8.75%	6.75%	8.42%
1992	8.50%	8.50%	8.00%	8.40%	6.25%	8.40%
1993	7.75%	8.10%	7.25%	8.10%	5.75%	8.10%
1994	7.25%	7.45%	6.75%	7.45%	5.50%	7.45%
1995	8.25%	8.25%	7.50%	7.50%	6.00%	6.99%
1996	7.25%	7.25%	6.75%	6.75%	5.50%	6.63%
1997	7.50%	7.50%	7.00%	7.00%	5.50%	6.33%
1998	7.00%	7.00%	6.50%	6.50%	5.25%	6.31%
1999	6.75%	6.75%	6.25%	6.30%	5.25%	6.30%
2000	7.75%	7.75%	7.25%	7.25%	5.75%	6.09%
2001	7.50%	7.50%	7.00%	7.00%	5.50%	6.00%
2002	7.25%	7.25%	6.75%	6.75%	5.50%	5.71%
2003	6.50%	6.50%	6.25%	6.25%	5.00%	5.27%
2004	6.00%	6.00%	5.75%	5.75%	4.75%	4.82%
2005	5.75%	5.75%	5.25%	5.25%	4.50%	4.50%
2006	5.75%	5.75%	5.50%	5.50%	4.50%	4.50%
2007	5.75%	5.75%	5.50%	5.50%	4.75%	4.75%
2008	6.00%	6.00%	5.75%	5.75%	4.75%	4.75%
2009	6.50%	6.50%	6.25%	6.25%	5.00%	5.00%
2010	5.50%	5.50%	5.25%	5.25%	4.50%	4.50%
2011	5.25%	5.25%	5.00%	5.00%	4.25%	4.25%
2012	4.50%	4.50%	4.25%	4.25%	3.75%	3.75%
2013	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2014	4.75%	4.75%	4.50%	4.50%	4.00%	4.00%
2015	4.25%	4.25%	4.00%	4.00%	3.75%	3.75%
2016	4.25%	4.25%	4.25%	4.25%	3.75%	3.75%
2017	4.00%	4.00%	4.00%	4.00%	3.50%	3.50%
2018	4.00%	n/a	4.00%	n/a	3.50%	n/a
2019	4.25%	n/a	4.00%	n/a	3.75%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.50%	n/a	3.50%	n/a	3.25%	n/a
2023	5.00%	n/a	4.75%	n/a	4.25%	n/a

Annuities with cash settlements
Change in fund valuations
With interest guarantees on considerations received more than one year after issue

Guarantee duration of more than five years but not more than 10 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	12.25%	12.25%	11.75%	11.75%	8.75%	8.75%
1984	12.25%	12.25%	11.75%	11.75%	8.50%	8.50%
1985	12.00%	12.00%	11.50%	11.50%	8.50%	8.50%
1986	10.00%	10.00%	9.50%	9.50%	7.25%	7.25%
1987	8.75%	8.75%	8.50%	8.50%	6.50%	6.50%
1988	9.50%	9.50%	9.25%	9.25%	7.00%	7.77%
1989	9.50%	9.50%	9.00%	9.00%	7.00%	8.16%
1990	8.75%	8.75%	8.50%	8.50%	6.50%	8.37%
1991	9.00%	9.00%	8.75%	8.75%	6.75%	8.42%
1992	8.25%	8.40%	8.00%	8.40%	6.25%	8.40%
1993	7.50%	8.10%	7.25%	8.10%	5.75%	8.10%
1994	7.00%	7.45%	6.75%	7.45%	5.50%	7.45%
1995	8.00%	8.00%	7.50%	7.50%	6.00%	6.99%
1996	7.00%	7.00%	6.75%	6.75%	5.50%	6.63%
1997	7.25%	7.25%	7.00%	7.00%	5.50%	6.33%
1998	6.75%	6.75%	6.50%	6.50%	5.25%	6.31%
1999	6.50%	6.50%	6.25%	6.30%	5.25%	6.30%
2000	7.50%	7.50%	7.25%	7.25%	5.75%	6.09%
2001	7.25%	7.25%	7.00%	7.00%	5.50%	6.00%
2002	7.00%	7.00%	6.75%	6.75%	5.50%	5.71%
2003	6.25%	6.25%	6.25%	6.25%	5.00%	5.27%
2004	6.00%	6.00%	5.75%	5.75%	4.75%	4.82%
2005	5.50%	5.50%	5.25%	5.25%	4.50%	4.50%
2006	5.50%	5.50%	5.50%	5.50%	4.50%	4.50%
2007	5.75%	5.75%	5.50%	5.50%	4.75%	4.75%
2008	6.00%	6.00%	5.75%	5.75%	4.75%	4.75%
2009	6.50%	6.50%	6.25%	6.25%	5.00%	5.00%
2010	5.50%	5.50%	5.25%	5.25%	4.50%	4.50%
2011	5.25%	5.25%	5.00%	5.00%	4.25%	4.25%
2012	4.50%	4.50%	4.25%	4.25%	3.75%	3.75%
2013	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2014	4.50%	4.50%	4.50%	4.50%	4.00%	4.00%
2015	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2016	4.25%	4.25%	4.25%	4.25%	3.75%	3.75%
2017	4.00%	4.00%	4.00%	4.00%	3.50%	3.50%
2018	4.00%	n/a	4.00%	n/a	3.50%	n/a
2019	4.25%	n/a	4.00%	n/a	3.75%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.50%	n/a	3.50%	n/a	3.25%	n/a
2023	5.00%	n/a	4.75%	n/a	4.25%	n/a

Annuities with cash settlements
Change in fund valuations
With interest guarantees on considerations received more than one year after issue

Guarantee duration of more than 10 years but not more than 20 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	11.25%	11.25%	10.75%	10.75%	8.25%	8.25%
1984	11.25%	11.25%	10.75%	10.75%	8.00%	8.00%
1985	11.00%	11.00%	10.50%	10.50%	8.00%	8.00%
1986	9.25%	9.25%	8.75%	8.75%	6.75%	6.75%
1987	8.00%	8.00%	7.75%	7.75%	6.25%	6.25%
1988	8.75%	8.75%	8.50%	8.50%	6.75%	7.77%
1989	8.75%	8.75%	8.25%	8.25%	6.50%	8.16%
1990	8.25%	8.37%	8.00%	8.37%	6.25%	8.37%
1991	8.25%	8.42%	8.00%	8.42%	6.25%	8.42%
1992	7.75%	8.40%	7.50%	8.40%	6.00%	8.40%
1993	7.00%	8.10%	6.75%	8.10%	5.50%	8.10%
1994	6.50%	7.45%	6.50%	7.45%	5.25%	7.45%
1995	7.25%	7.25%	7.00%	7.00%	5.75%	6.99%
1996	6.75%	6.75%	6.50%	6.63%	5.25%	6.63%
1997	6.75%	6.75%	6.50%	6.50%	5.25%	6.33%
1998	6.25%	6.31%	6.00%	6.31%	5.00%	6.31%
1999	6.25%	6.30%	6.00%	6.30%	5.00%	6.30%
2000	7.00%	7.00%	6.75%	6.75%	5.50%	6.09%
2001	6.75%	6.75%	6.50%	6.50%	5.25%	6.00%
2002	6.50%	6.50%	6.25%	6.25%	5.25%	5.71%
2003	6.00%	6.00%	5.75%	5.75%	4.75%	5.27%
2004	5.50%	5.50%	5.50%	5.50%	4.75%	4.82%
2005	5.25%	5.25%	5.00%	5.00%	4.50%	4.50%
2006	5.25%	5.25%	5.25%	5.25%	4.50%	4.50%
2007	5.50%	5.50%	5.25%	5.25%	4.50%	4.50%
2008	5.50%	5.50%	5.50%	5.50%	4.50%	4.50%
2009	6.00%	6.00%	5.75%	5.75%	5.00%	5.00%
2010	5.25%	5.25%	5.00%	5.00%	4.25%	4.25%
2011	5.00%	5.00%	4.75%	4.75%	4.25%	4.25%
2012	4.25%	4.25%	4.25%	4.25%	3.75%	3.75%
2013	4.00%	4.00%	3.75%	3.75%	3.50%	3.50%
2014	4.50%	4.50%	4.25%	4.25%	3.75%	3.75%
2015	4.00%	4.00%	4.00%	4.00%	3.50%	3.50%
2016	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2017	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2018	3.75%	n/a	3.75%	n/a	3.50%	n/a
2019	4.00%	n/a	4.00%	n/a	3.75%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.50%	n/a	3.50%	n/a	3.25%	n/a
2023	4.75%	n/a	4.50%	n/a	4.00%	n/a

Annuities with cash settlements
Change in fund valuations
With interest guarantees on considerations received more than one year after issue

Guarantee duration of more than 20 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	9.25%	9.25%	9.25%	9.25%	7.25%	7.25%
1984	9.25%	9.25%	9.25%	9.25%	7.00%	7.00%
1985	9.00%	9.00%	9.00%	9.00%	7.00%	7.00%
1986	7.75%	7.75%	7.75%	7.75%	6.00%	6.00%
1987	6.75%	6.75%	6.75%	6.75%	5.50%	5.50%
1988	7.50%	7.77%	7.50%	7.77%	6.00%	7.77%
1989	7.25%	8.16%	7.25%	8.16%	5.75%	8.16%
1990	7.00%	8.37%	7.00%	8.37%	5.50%	8.37%
1991	7.00%	8.42%	7.00%	8.42%	5.75%	8.42%
1992	6.50%	8.40%	6.50%	8.40%	5.25%	8.40%
1993	6.00%	8.10%	6.00%	8.10%	5.00%	8.10%
1994	5.75%	7.45%	5.75%	7.45%	4.75%	7.45%
1995	6.25%	6.99%	6.25%	6.99%	5.25%	6.99%
1996	5.75%	6.63%	5.75%	6.63%	4.75%	6.63%
1997	5.75%	6.33%	5.75%	6.33%	5.00%	6.33%
1998	5.50%	6.31%	5.50%	6.31%	4.75%	6.31%
1999	5.50%	6.30%	5.50%	6.30%	4.50%	6.30%
2000	6.00%	6.09%	6.00%	6.09%	5.00%	6.09%
2001	5.75%	6.00%	5.75%	6.00%	5.00%	6.00%
2002	5.75%	5.75%	5.75%	5.75%	4.75%	5.71%
2003	5.25%	5.27%	5.25%	5.27%	4.50%	5.27%
2004	5.00%	5.00%	5.00%	5.00%	4.25%	4.82%
2005	4.75%	4.75%	4.75%	4.75%	4.00%	4.44%
2006	4.75%	4.75%	4.75%	4.75%	4.25%	4.25%
2007	4.75%	4.75%	4.75%	4.75%	4.25%	4.25%
2008	5.00%	5.00%	5.00%	5.00%	4.25%	4.25%
2009	5.25%	5.25%	5.25%	5.25%	4.50%	4.50%
2010	4.75%	4.75%	4.75%	4.75%	4.00%	4.00%
2011	4.50%	4.50%	4.50%	4.50%	4.00%	4.00%
2012	4.00%	4.00%	4.00%	4.00%	3.50%	3.50%
2013	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2014	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2015	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2016	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2017	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2018	3.75%	n/a	3.75%	n/a	3.50%	n/a
2019	3.75%	n/a	3.75%	n/a	3.50%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.25%	n/a	3.25%	n/a	3.25%	n/a
2023	4.25%	n/a	4.25%	n/a	3.75%	n/a

Annuities with cash settlements
Change in fund valuations
Without interest guarantees on considerations received more than one year after issue

Guarantee duration of five years or less						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	13.50%	13.50%	12.25%	12.25%	9.25%	9.25%
1984	13.25%	13.25%	12.25%	12.25%	9.25%	9.25%
1985	13.00%	13.00%	12.00%	12.00%	9.00%	9.00%
1986	10.75%	10.75%	10.00%	10.00%	7.75%	7.75%
1987	9.50%	9.50%	8.75%	8.75%	6.75%	6.75%
1988	10.25%	10.25%	9.50%	9.50%	7.50%	7.77%
1989	10.00%	10.00%	9.50%	9.50%	7.25%	8.16%
1990	9.50%	9.50%	8.75%	8.75%	7.00%	8.37%
1991	9.75%	9.75%	9.00%	9.00%	7.00%	8.42%
1992	9.00%	9.00%	8.25%	8.40%	6.50%	8.40%
1993	8.25%	8.25%	7.50%	8.10%	6.00%	8.10%
1994	7.50%	7.50%	7.00%	7.45%	5.75%	7.45%
1995	8.50%	8.50%	8.00%	8.00%	6.25%	6.99%
1996	7.50%	7.50%	7.00%	7.00%	5.75%	6.63%
1997	7.75%	7.75%	7.25%	7.25%	5.75%	6.33%
1998	7.00%	7.00%	6.75%	6.75%	5.50%	6.31%
1999	7.00%	7.00%	6.50%	6.50%	5.50%	6.30%
2000	8.00%	8.00%	7.50%	7.50%	6.00%	6.09%
2001	7.75%	7.75%	7.25%	7.25%	5.75%	6.00%
2002	7.50%	7.50%	7.00%	7.00%	5.75%	5.75%
2003	6.75%	6.75%	6.25%	6.25%	5.25%	5.27%
2004	6.25%	6.25%	6.00%	6.00%	5.00%	5.00%
2005	5.75%	5.75%	5.50%	5.50%	4.75%	4.75%
2006	5.75%	5.75%	5.50%	5.50%	4.75%	4.75%
2007	6.00%	6.00%	5.75%	5.75%	4.75%	4.75%
2008	6.25%	6.25%	6.00%	6.00%	5.00%	5.00%
2009	6.75%	6.75%	6.50%	6.50%	5.25%	5.25%
2010	5.75%	5.75%	5.50%	5.50%	4.75%	4.75%
2011	5.25%	5.25%	5.25%	5.25%	4.50%	4.50%
2012	4.50%	4.50%	4.50%	4.50%	4.00%	4.00%
2013	4.25%	4.25%	4.00%	4.00%	3.75%	3.75%
2014	4.75%	4.75%	4.50%	4.50%	4.00%	4.00%
2015	4.25%	4.25%	4.00%	4.00%	3.75%	3.75%
2016	4.50%	4.50%	4.25%	4.25%	3.75%	3.75%
2017	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2018	4.00%	n/a	4.00%	n/a	3.75%	n/a
2019	4.25%	n/a	4.25%	n/a	3.75%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.50%	n/a	3.50%	n/a	3.25%	n/a
2023	5.25%	n/a	5.00%	n/a	4.25%	n/a

Annuities with cash settlements
Change in fund valuations
Without interest guarantees on considerations received more than one year after issue

Guarantee duration of more than five years but not more than 10 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	12.75%	12.75%	12.25%	12.25%	9.25%	9.25%
1984	12.75%	12.75%	12.25%	12.25%	9.25%	9.25%
1985	12.50%	12.50%	12.00%	12.00%	9.00%	9.00%
1986	10.25%	10.25%	10.00%	10.00%	7.75%	7.75%
1987	9.00%	9.00%	8.75%	8.75%	6.75%	6.75%
1988	10.00%	10.00%	9.50%	9.50%	7.50%	7.77%
1989	9.75%	9.75%	9.50%	9.50%	7.25%	8.16%
1990	9.25%	9.25%	8.75%	8.75%	7.00%	8.37%
1991	9.25%	9.25%	9.00%	9.00%	7.00%	8.42%
1992	8.50%	8.50%	8.25%	8.40%	6.50%	8.40%
1993	7.75%	8.10%	7.50%	8.10%	6.00%	8.10%
1994	7.25%	7.45%	7.00%	7.45%	5.75%	7.45%
1995	8.25%	8.25%	8.00%	8.00%	6.25%	6.99%
1996	7.25%	7.25%	7.00%	7.00%	5.75%	6.63%
1997	7.50%	7.50%	7.25%	7.25%	5.75%	6.33%
1998	7.00%	7.00%	6.75%	6.75%	5.50%	6.31%
1999	6.75%	6.75%	6.50%	6.50%	5.50%	6.30%
2000	7.75%	7.75%	7.50%	7.50%	6.00%	6.09%
2001	7.50%	7.50%	7.25%	7.25%	5.75%	6.00%
2002	7.25%	7.25%	7.00%	7.00%	5.75%	5.75%
2003	6.50%	6.50%	6.25%	6.25%	5.25%	5.27%
2004	6.00%	6.00%	6.00%	6.00%	5.00%	5.00%
2005	5.75%	5.75%	5.50%	5.50%	4.75%	4.75%
2006	5.75%	5.75%	5.50%	5.50%	4.75%	4.75%
2007	5.75%	5.75%	5.75%	5.75%	4.75%	4.75%
2008	6.00%	6.00%	6.00%	6.00%	5.00%	5.00%
2009	6.50%	6.50%	6.50%	6.50%	5.25%	5.25%
2010	5.50%	5.50%	5.50%	5.50%	4.75%	4.75%
2011	5.25%	5.25%	5.25%	5.25%	4.50%	4.50%
2012	4.50%	4.50%	4.50%	4.50%	4.00%	4.00%
2013	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2014	4.75%	4.75%	4.50%	4.50%	4.00%	4.00%
2015	4.25%	4.25%	4.00%	4.00%	3.75%	3.75%
2016	4.25%	4.25%	4.25%	4.25%	3.75%	3.75%
2017	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2018	4.00%	n/a	4.00%	n/a	3.75%	n/a
2019	4.25%	n/a	4.25%	n/a	3.75%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.50%	n/a	3.50%	n/a	3.25%	n/a
2023	5.00%	n/a	5.00%	n/a	4.25%	n/a

Annuities with cash settlements
Change in fund valuations
Without interest guarantees on considerations received more than one year after issue

Guarantee duration of more than 10 years but not more than 20 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	11.75%	11.75%	11.25%	11.25%	8.75%	8.75%
1984	11.75%	11.75%	11.25%	11.25%	8.50%	8.50%
1985	11.50%	11.50%	11.00%	11.00%	8.50%	8.50%
1986	9.50%	9.50%	9.25%	9.25%	7.25%	7.25%
1987	8.50%	8.50%	8.00%	8.00%	6.50%	6.50%
1988	9.25%	9.25%	8.75%	8.75%	7.00%	7.77%
1989	9.00%	9.00%	8.75%	8.75%	7.00%	8.16%
1990	8.50%	8.50%	8.25%	8.37%	6.50%	8.37%
1991	8.75%	8.75%	8.25%	8.42%	6.75%	8.42%
1992	8.00%	8.40%	7.75%	8.40%	6.25%	8.40%
1993	7.25%	8.10%	7.00%	8.10%	5.75%	8.10%
1994	6.75%	7.45%	6.50%	7.45%	5.50%	7.45%
1995	7.50%	7.50%	7.25%	7.25%	6.00%	6.99%
1996	6.75%	6.75%	6.75%	6.75%	5.50%	6.63%
1997	7.00%	7.00%	6.75%	6.75%	5.50%	6.33%
1998	6.50%	6.50%	6.25%	6.31%	5.25%	6.31%
1999	6.25%	6.30%	6.25%	6.30%	5.25%	6.30%
2000	7.25%	7.25%	7.00%	7.00%	5.75%	6.09%
2001	7.00%	7.00%	6.75%	6.75%	5.50%	6.00%
2002	6.75%	6.75%	6.50%	6.50%	5.50%	5.71%
2003	6.25%	6.25%	6.00%	6.00%	5.00%	5.27%
2004	5.75%	5.75%	5.50%	5.50%	4.75%	4.82%
2005	5.25%	5.25%	5.25%	5.25%	4.50%	4.50%
2006	5.50%	5.50%	5.25%	5.25%	4.50%	4.50%
2007	5.50%	5.50%	5.50%	5.50%	4.75%	4.75%
2008	5.75%	5.75%	5.50%	5.50%	4.75%	4.75%
2009	6.25%	6.25%	6.00%	6.00%	5.00%	5.00%
2010	5.25%	5.25%	5.25%	5.25%	4.50%	4.50%
2011	5.00%	5.00%	5.00%	5.00%	4.25%	4.25%
2012	4.25%	4.25%	4.25%	4.25%	3.75%	3.75%
2013	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2014	4.50%	4.50%	4.50%	4.50%	4.00%	4.00%
2015	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2016	4.25%	4.25%	4.00%	4.00%	3.75%	3.75%
2017	4.00%	4.00%	3.75%	3.75%	3.50%	3.50%
2018	4.00%	n/a	3.75%	n/a	3.50%	n/a
2019	4.00%	n/a	4.00%	n/a	3.75%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.50%	n/a	3.50%	n/a	3.25%	n/a
2023	4.75%	n/a	4.75%	n/a	4.25%	n/a

Annuities with cash settlements
Change in fund valuations
Without interest guarantees on considerations received more than one year after issue

Guarantee duration of more than 20 years						
Issue year	Type A		Type B		Type C	
	Statutory	Tax	Statutory	Tax	Statutory	Tax
1983	9.75%	9.75%	9.75%	9.75%	7.75%	7.75%
1984	9.75%	9.75%	9.75%	9.75%	7.50%	7.50%
1985	9.50%	9.50%	9.50%	9.50%	7.50%	7.50%
1986	8.00%	8.00%	8.00%	8.00%	6.50%	6.50%
1987	7.25%	7.25%	7.25%	7.25%	6.00%	6.00%
1988	7.75%	7.77%	7.75%	7.77%	6.25%	7.77%
1989	7.50%	8.16%	7.50%	8.16%	6.25%	8.16%
1990	7.25%	8.37%	7.25%	8.37%	6.00%	8.37%
1991	7.25%	8.42%	7.25%	8.42%	6.00%	8.42%
1992	6.75%	8.40%	6.75%	8.40%	5.75%	8.40%
1993	6.25%	8.10%	6.25%	8.10%	5.25%	8.10%
1994	6.00%	7.45%	6.00%	7.45%	5.00%	7.45%
1995	6.50%	6.99%	6.50%	6.99%	5.50%	6.99%
1996	6.00%	6.63%	6.00%	6.63%	5.00%	6.63%
1997	6.00%	6.33%	6.00%	6.33%	5.25%	6.33%
1998	5.75%	6.31%	5.75%	6.31%	4.75%	6.31%
1999	5.50%	6.30%	5.50%	6.30%	4.75%	6.30%
2000	6.25%	6.25%	6.25%	6.25%	5.25%	6.09%
2001	6.00%	6.00%	6.00%	6.00%	5.00%	6.00%
2002	6.00%	6.00%	6.00%	6.00%	5.00%	5.71%
2003	5.50%	5.50%	5.50%	5.50%	4.75%	5.27%
2004	5.00%	5.00%	5.00%	5.00%	4.50%	4.82%
2005	4.75%	4.75%	4.75%	4.75%	4.25%	4.44%
2006	4.75%	4.75%	4.75%	4.75%	4.25%	4.25%
2007	5.00%	5.00%	5.00%	5.00%	4.25%	4.25%
2008	5.00%	5.00%	5.00%	5.00%	4.50%	4.50%
2009	5.50%	5.50%	5.50%	5.50%	4.75%	4.75%
2010	4.75%	4.75%	4.75%	4.75%	4.25%	4.25%
2011	4.50%	4.50%	4.50%	4.50%	4.00%	4.00%
2012	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2013	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2014	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2015	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2016	4.00%	4.00%	4.00%	4.00%	3.75%	3.75%
2017	3.75%	3.75%	3.75%	3.75%	3.50%	3.50%
2018	3.75%	n/a	3.75%	n/a	3.50%	n/a
2019	3.75%	n/a	3.75%	n/a	3.50%	n/a
2020	3.25%	n/a	3.25%	n/a	3.25%	n/a
2021	3.00%	n/a	3.00%	n/a	3.00%	n/a
2022	3.25%	n/a	3.25%	n/a	3.25%	n/a
2023	4.50%	n/a	4.50%	n/a	4.00%	n/a

Appendix 2: Statutory and tax prevailing interest rates for pre-1983 issues

Statutory and tax prevailing interest rates for pre-1983 issues

Life insurance		
Issue years	Annual pay	Single pay
Pre-1946	3.50% stat	3.50% stat
	4.00% tax	4.00% tax
1946 – 1974	3.50%	3.50%
1972 amendments		
1975 – 1979	4.00%	4.00%
1976 amendments		5.50% stat
1980 – 1981	4.50%	4.50% tax
1982	4.50%	5.50%

The maximum statutory valuation interest rates for life insurance include ordinary, industrial, group and credit life products. For non-cancelable accident and health insurance, there are no prevailing rates under IRC section 807(d)(4)(A); therefore, interest rates used in calculating non-cancelable accident and health insurance reserves are those applicable to whole life insurance, in accordance with section 807(d)(4)(D).

Annuities				
Issue years	Individual SPIA	Individual SPDA	Other individual	Group and pure endowments
Pre-1946	3.50% stat	3.50% stat	3.50% stat	3.50% stat
	4.00% tax	4.00% tax	4.00% tax	4.00% tax
1946 – 1974	3.50%	3.50%	3.50%	3.50%
1972 amendments				
1975 – 1979	6.00%	4.00%	4.00%	6.00%
1976 amendments				
1980 – 1982	7.50%	5.50%	4.50%	7.50%

Appendix 3: Valuation interest rate sensitivity by product type

As discussed in Section 3 of the report, maximum statutory valuation interest rates depend on the values of reference interest rates, which vary by product type and guarantee duration. The reference interest rates for some annuity products, such as SPIAs, are calculated using the 12-month arithmetic mean of the Moody's corporate bond yield indices. Reference interest rates for all life insurance products and certain other annuity products are calculated using the lesser of the 12-month and 36-month arithmetic means of the Moody's corporate bond yield indices.

Given a specific number of months of historical, or known, Moody's corporate bond yield indices data points, one can test the sensitivity of potential changes in valuation interest rates for the upcoming calendar year by considering a range of future, or unknown, Moody's corporate bond yield averages for the remainder of the time period.

In this appendix, we present the results of such sensitivity tests for calendar year 2025 issues of life insurance products and calendar year 2024 issues of annuities. This analysis assumes that the Moody's corporate bond yield index values are unknown for July 2023 to June 2024.

Statutory maximum valuation interest rate: Life insurance products

2024 actual rate	Average unknown Moody's rates needed to change rate by:				
	-0.75%	-0.50%	0.50%	0.75%	1.00%
	Guarantee duration of 10 years or less				
3.25%	2.25%	2.75%	4.26%	5.61%	7.11%
	Guarantee duration of more than 10 years but not more than 20 years				
3.25%	2.16%	2.72%	4.50%	6.18%	7.86%
	Guarantee duration of more than 20 years				
3.00%	1.21%	1.92%	4.08%	5.70%	7.86%

An example of the way to interpret the life insurance exhibit, above, is shown below.

Example of a projected whole life statutory maximum valuation interest rate for life products With guarantee of more than 20 years

					2025 projected whole life maximum rate
If the remaining unknown Moody's indices average is:			not more than	1.21%	2.25%
	more than	1.21%	but not more than	1.92%	2.50%
	more than	1.92%	but less than	4.08%	3.00%
	at least	4.08%	but less than	5.70%	3.50%
	at least	5.70%	but less than	7.86%	3.75%
			at least	7.86%	4.00%

Statutory maximum valuation interest rate: Annuities with cash settlement options
Issue year valuation basis
With interest guarantees on considerations received more than one year after issue

	2023 actual rate	Average unknown Moody's rates needed to change rate by:				
Annuity		-0.75%	-0.50%	-0.25%	0.25%	0.50%
Guarantee duration of five years or less						
Type A	4.75%	4.40%	4.71%	5.03%	5.35%	5.66%
Type B	4.25%	4.04%	4.45%	4.87%	5.30%	5.71%
Type C	4.00%	3.75%	4.25%	4.75%	5.26%	5.76%
Guarantee duration of more than five years but not more than 10 years						
Type A	4.50%	4.16%	4.50%	4.83%	5.17%	5.51%
Type B	4.25%	4.04%	4.45%	4.87%	5.30%	5.71%
Type C	4.00%	3.75%	4.25%	4.75%	5.26%	5.76%
Guarantee duration of more than 10 years but not more than 20 years						
Type A	3.50%	2.80%	3.19%	3.57%	3.97%	4.38%
Type B	3.50%	2.75%	3.25%	3.75%	4.26%	5.61%
Type C	3.50%	2.72%	3.27%	3.83%	4.50%	6.18%
Guarantee duration of more than 20 years						
Type A	3.50%	2.72%	3.27%	3.83%	4.50%	6.18%
Type B	3.25%	1.92%	2.64%	3.35%	4.08%	5.70%
Type C	3.25%	1.92%	2.64%	3.35%	4.08%	5.70%

Statutory maximum valuation interest rate: Annuities with cash settlement options
Issue year valuation basis
Without interest guarantees on considerations received more than one year after issue

	2023 actual rate	Average unknown Moody's rates needed to change rate by:				
Annuity		−0.75%	−0.50%	−0.25%	0.25%	0.50%
Guarantee duration of five years or less						
Type A	4.75%	4.32%	4.61%	4.91%	5.21%	5.51%
Type B	4.50%	4.34%	4.73%	5.11%	5.51%	5.89%
Type C	4.25%	4.13%	4.59%	5.04%	5.51%	5.96%
Guarantee duration of more than five years but not more than 10 years						
Type A	4.75%	4.40%	4.71%	5.03%	5.35%	5.66%
Type B	4.50%	4.34%	4.73%	5.11%	5.51%	5.89%
Type C	4.25%	4.13%	4.59%	5.04%	5.51%	5.96%
Guarantee duration of more than 10 years but not more than 20 years						
Type A	3.50%	2.82%	3.17%	3.53%	3.90%	4.26%
Type B	3.50%	2.77%	3.22%	3.68%	4.14%	5.13%
Type C	3.50%	2.75%	3.25%	3.75%	4.26%	5.61%
Guarantee duration of more than 20 years						
Type A	3.50%	2.75%	3.25%	3.75%	4.26%	5.61%
Type B	3.25%	2.06%	2.68%	3.31%	3.94%	5.04%
Type C	3.25%	2.06%	2.68%	3.31%	3.94%	5.04%

Statutory maximum valuation interest rate: Annuities without cash settlement options
Issue year valuation basis
With or without interest guarantees on considerations received more than one year after issue

	2023 actual rate	Average unknown Moody's rates needed to change rate by:				
Annuity		-0.75%	-0.50%	-0.25%	0.25%	0.50%
Guarantee duration of five years or less						
Type A	4.75%	4.40%	4.71%	5.03%	5.35%	5.66%
Type B				n/a		
Type C				n/a		
Guarantee duration of more than five years but not more than 10 years						
Type A	4.50%	4.16%	4.50%	4.83%	5.17%	5.51%
Type B				n/a		
Type C				n/a		
Guarantee duration of more than 10 years but not more than 20 years						
Type A	4.50%	4.34%	4.73%	5.11%	5.51%	5.89%
Type B				n/a		
Type C				n/a		
Guarantee duration of more than 20 years						
Type A	4.00%	3.83%	4.38%	4.94%	5.51%	6.06%
Type B				n/a		
Type C				n/a		

Statutory maximum valuation interest rate: Annuities with cash settlement options
Change in fund valuation basis
With interest guarantees on considerations received more than one year after issue

	2023 actual rate	Average unknown Moody's rates needed to change rate by:				
Annuity		-0.75%	-0.50%	-0.25%	0.25%	0.50%
Guarantee duration of five years or less						
Type A	5.00%	4.44%	4.71%	4.97%	5.24%	5.51%
Type B	4.75%	4.32%	4.61%	4.91%	5.21%	5.51%
Type C	4.25%	4.13%	4.59%	5.04%	5.51%	5.96%
Guarantee duration of more than five years but not more than 10 years						
Type A	5.00%	4.52%	4.80%	5.08%	5.37%	5.64%
Type B	4.75%	4.32%	4.61%	4.91%	5.21%	5.51%
Type C	4.25%	4.13%	4.59%	5.04%	5.51%	5.96%
Guarantee duration of more than 10 years but not more than 20 years						
Type A	4.75%	4.40%	4.71%	5.03%	5.35%	5.66%
Type B	4.50%	4.16%	4.50%	4.83%	5.17%	5.51%
Type C	4.00%	3.75%	4.25%	4.75%	5.26%	5.76%
Guarantee duration of more than 20 years						
Type A	4.25%	4.04%	4.45%	4.87%	5.30%	5.71%
Type B	4.25%	4.04%	4.45%	4.87%	5.30%	5.71%
Type C	3.75%	3.31%	3.93%	4.56%	5.19%	5.82%

Statutory maximum valuation interest rate: Annuities with cash settlement options
Change in fund valuation basis
Without interest guarantees on considerations received more than one year after issue

	2023 actual rate	Average unknown Moody's rates needed to change rate by:				
Annuity		-0.75%	-0.50%	-0.25%	0.25%	0.50%
Guarantee duration of five years or less						
Type A	5.25%	4.62%	4.87%	5.12%	5.38%	5.63%
Type B	5.00%	4.52%	4.80%	5.08%	5.37%	5.64%
Type C	4.25%	4.04%	4.45%	4.87%	5.30%	5.71%
Guarantee duration of more than five years but not more than 10 years						
Type A	5.00%	4.44%	4.71%	4.97%	5.24%	5.51%
Type B	5.00%	4.52%	4.80%	5.08%	5.37%	5.64%
Type C	4.25%	4.04%	4.45%	4.87%	5.30%	5.71%
Guarantee duration of more than 10 years but not more than 20 years						
Type A	4.75%	4.32%	4.61%	4.91%	5.21%	5.51%
Type B	4.75%	4.40%	4.71%	5.03%	5.35%	5.66%
Type C	4.25%	4.13%	4.59%	5.04%	5.51%	5.96%
Guarantee duration of more than 20 years						
Type A	4.50%	4.34%	4.73%	5.11%	5.51%	5.89%
Type B	4.50%	4.34%	4.73%	5.11%	5.51%	5.89%
Type C	4.00%	3.83%	4.38%	4.94%	5.51%	6.06%

Appendix 4: Definitions

Guarantee duration

Life insurance	Annuities and guaranteed investment contracts (GICs) with cash settlement options	Annuities and GICs without cash settlement options
<p>The maximum number of years the contract can remain in force on a basis guaranteed in the policy, or under options to convert to plans of life insurance with premium rates or nonforfeiture values, or both, that are guaranteed in the original policy</p>	<p>Generally, the number of years a contract guarantees an interest rate in excess of the calendar-year statutory valuation interest rate for life insurance policies with guarantee duration in excess of 20 years; note that some regulators have determined that flexible premium deferred annuities contain interest guarantees irrespective of the relationship to the long life rate</p>	<p>The number of years from the date of issue (or date of purchase) to the scheduled date of commencement of annuity benefits</p>

Annuity plan types

Type A	Type B	Type C
<p>If any of the following restrictions apply to any and all withdrawals:</p> <p>An adjustment is made to reflect changes in interest rates or asset values since receipt of the funds by the insurance company</p> <p>Without an adjustment but paid out in installments over at least five years</p> <p>Without an adjustment but paid out as an immediate life annuity</p> <p>Withdrawals are not allowed</p>	<p>If any of the following restrictions apply upon withdrawals prior to expiration of the interest rate guarantee period:</p> <p>An adjustment is made to reflect changes in interest rates or asset values since receipt of the funds by the insurance company</p> <p>Without an adjustment but paid out in installments over at least five years</p> <p>Withdrawals are not allowed</p> <p>After the end of the interest rate guarantee period, withdrawals can be made in a single sum or in installments over less than five years</p>	<p>The policyholder can withdraw funds at any time in a single sum or in installments over less than five years either:</p> <p>Without adjustment to reflect changes in interest rates or asset values since receipt of the funds by the insurance company</p> <p>Subject to only a fixed surrender charge stipulated in the contract as a percentage of the fund</p>

Issue year valuation basis

The interest rate used to determine the minimum valuation standard for the entire duration of the contract is determined in the year of issue.

Change in fund valuation basis

The interest rate used to determine the minimum valuation standard for each change in fund balance is determined in the year of change in the fund.