LIFE INSURANCE & MODIFIED ENDOWMENTS

Under Internal Revenue Code Sections 7702 and 7702A

Second Edition

2017 Supplement

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INTRODUCTION

This supplement addresses issues that have arisen since the 2015 publication of the second edition of our textbook, LIFE INSURANCE & MODIFIED ENDOWMENTS, and clarifies certain items that were addressed in the book. Some of the material in this supplement was originally presented in articles we wrote for *Taxing Times*, the newsletter of the Taxation Section of the Society of Actuaries.

This supplement is organized according to the order in which the discussion would appear in the textbook. Some of the information in this supplement supersedes material that appears in the textbook.

MORTALITY (Chapter 2, Page 41)

The Permanent Mortality Rule (Chapter 2, Page 42)

The 2017 Commissioners' Standard Ordinary Mortality Tables (2017 CSO Tables) became the "prevailing commissioners' standard tables" under section 807(d)(5)(A), effective January 1, 2017. The NAIC adopted the new tables as part of the Valuation Manual implemented under revisions made to the Standard Valuation Law in 2016. Under applicable state law, the 2017 CSO Tables are *permitted* to be used for contracts issued on or after January 1, 2017, and *must* be used for contracts issued on and after January 1, 2020. Section 807(d)(5) generally defines the prevailing commissioners' standard tables as the most recent commissioners' standard tables prescribed by the NAIC that are permitted to be used in computing reserves for the type of contract involved under the insurance laws of at least 26 states when the contract was issued; however, the revised Standard Valuation Law and the Valuation Manual adopted under it render the 26-state approval automatic when the NAIC adopts a new table, as explained further in the paragraphs that follow. . Hence, subject to the three-year transition rule, the 2017 CSO Tables now serve as the limit under the permanent "reasonable mortality" rule of section 7702(c)(3)(B)(i) for the purposes of section 7702 and 7702A calculations in standard risk cases.

By way of background, a fundamental change in approach for establishing valuation standards for life insurance products, due in large part to the advent of principle-based reserving, was initiated by the NAIC's 2009 adoption of revisions to the Standard Valuation Law.[1] This was followed in December 2012 by the NAIC's adoption of the Valuation Manual, a technical how-to guide with specifics that allow actuaries and senior corporate management to implement principle-based reserving. After a lengthy state approval process that required adoption by a supermajority of NAIC jurisdictions (i.e., at least 42 jurisdictions, with eligible jurisdictions including the states, the District of Columbia and certain U.S. territories) representing 75% of direct written premium, the

[1] MDL-820 (2010).

Valuation Manual became operative on January 1, 2017. At the beginning of 2017, the Valuation Manual was in effect in 46 states.

The Valuation Manual changes the process used by the NAIC and the states for adopting new mortality tables. In the past, new mortality tables were recognized by state legislation or regulatory action. For example, for the 2001 CSO Tables, the NAIC adopted a regulation titled *Recognition of the 2001 CSO Mortality Table for Use in Determining Minimum Reserve Liabilities and Nonforfeiture Benefits Model Regulation*[2] in 2002 that required individual state approval; thus, there was a lengthy approval process before a majority of the states had adopted the 2001 CSO Tables by mid-2004. Under the new approach, new mortality tables will be adopted by the NAIC via amendments to the Valuation Manual without the need for legislation or a regulatory proceeding in each state, significantly shortening the duration of the process for introducing new mortality tables.[3] In particular, the Valuation Manual as presently adopted contemplates that such amendments will take effect automatically, so a change in mortality tables would be implemented based on the effective date of the Valuation Manual amendment with no need for any state action.

The 2017 CSO Tables are the first standard mortality tables following the new adoption process.[4] Because the Valuation Manual, including its incorporation of the 2017 CSO Tables, is in effect in more than 26 states, the 26-state approval requirement for the new tables was met when the Valuation Manual took effect on January 1, 2017. Hence, the new tables became "prevailing" within the meaning for section 807(d)(5)(A) and applicable under the permanent reasonable mortality rule for contracts issued on or after that date, subject to the three-year transition rule in section 807(d)(5)(B). The IRS has recognized this development, as discussed in the next part.

As illustrated in Table 1, mortality rates under the 2017 CSO Tables generally reflect an overall improvement in mortality relative to the 2001 Commissioners Standard Ordinary Tables (2001 CSO Tables), with improvements varying across attained age and risk class.

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[2] MDL-814 (2003).

[3] *See* § 11B and 11C of the Standard Valuation Law and the drafting note thereto; § 5cH(6) of the Standard Nonforfeiture Law for Life Insurance, MDL-808 (2014).

[4] While the accelerated adoption process provided by the Valuation Manual is beneficial from an efficiency perspective, it raises concerns that it may not provide sufficient time for insurers to develop products and conform valuation and administrative systems to new tables. There also may be less time for the IRS to provide any needed guidance on new tables from both a valuation and product tax perspective. To alleviate some of these concerns, guidance notes were added to VM-02 and VM-20 of the Valuation Manual that recommend a time frame for new table adoption. For the 2017 CSO Tables, however, the permitted and mandatory use dates that were ultimately adopted did not adhere to this time frame, due in part to the NAIC's desire to have the permitted date for the 2017 CSO Tables coincide with the operative date of the Valuation Manual. As discussed next, this has not created a problem under section 7702 or 7702A due to the structure of the tax statutes and prompt action undertaken by the IRS.

Table 1. Select mortality rates No. of deaths per 1,000—age last birthday (ALB)						
Attained age	**Male nonsmoker**			**Female nonsmoker**		
	2017 CSO	**2001 CSO**	**%**	**2017 CSO**	**2001 CSO**	**%**
25	0.79	1.00	79%	0.32	0.51	63%
45	1.87	2.44	77%	1.07	1.79	60%
65	8.39	16.23	52%	5.90	11.52	51%
85	87.97	119.83	73%	65.39	75.99	86%
	Male smoker			**Female smoker**		
25	1.01	1.67	60%	0.40	0.79	51%
45	3.46	4.78	72%	2.32	3.28	71%
65	20.79	27.69	75%	16.62	21.10	79%
85	117.49	146.24	80%	107.44	108.60	99%

As expected, the mortality improvements underlying the development of the 2017 CSO Tables will reduce funding limitations under sections 7702 and 7702A, with reductions to guideline, 7-pay and net single premiums generally in the range of 10 to 20 percent relative to their 2001 CSO Table counterparts. Table 2 illustrates the relative reduction in the guideline single premium (GSP) for a sample contract across several different issue ages and risk classes. Insurers should expect reductions in the guideline level, 7-pay and net single premiums that are comparable to those for the GSP for most issue ages and risk classes.

Table 2. GSP per $1,000 of death benefit Annual curtate calculations, 6% interest, no expenses and an endowment age of 100						
Issue age	Male nonsmoker			Female nonsmoker		
	2017 CSO	2001 CSO	%	2017 CSO	2001 CSO	%
25	51.59	65.62	79%	41.85	54.42	77%
45	135.21	171.20	79%	113.60	146.58	78%
65	342.24	409.05	84%	300.25	349.52	86%
85	702.95	733.77	96%	661.37	668.86	99%
	Male smoker			Female smoker		
	2017 CSO	2001 CSO	%	2017 CSO	2001 CSO	%
25	74.47	90.36	82%	62.11	75.73	82%
45	192.11	221.52	87%	170.86	197.38	87%
65	438.70	470.37	93%	402.35	425.78	94%
85	731.37	758.00	96%	718.40	708.85	101%

IRS Notice 2016-63 (Chapter 2, Page 47)

In the fall of 2016, the Treasury Department and the IRS issued Notice 2016-63[5] in response to the life insurance industry's request for guidance on the transition to the 2017 CSO Tables. Notice 2016-63—after recognizing that the new tables would become the prevailing commissioners' standard tables under section 807(d)(5)(A) on January 1, 2017—restated the safe harbors established by Notices 88-128 and 2006-95. It generally retained the structure and rules of the latter notice, including the rules for use of unisex/sex-distinct mortality tables and for unismoke/smoker-distinct mortality tables. Most significantly, Notice 2016-63 provided a new safe harbor enabling use of the 2017 CSO Tables, stating,

> A mortality charge with respect to a life insurance contract will satisfy the requirements of § 7702(c)(3)(B)(i) [the permanent reasonable mortality rule] so long as (1) the mortality charge does not exceed 100 percent of the applicable mortality charge set forth in the 2017 CSO tables; (2) the mortality charge does not exceed the mortality charge specified in the contract at issuance; and (3) either (a) the contract is issued after December 31, 2019, or (b) the contract is issued before January 1, 2020, in a state that permits or requires the use of the 2017 CSO tables at the time the contract is issued.[6]

[5] 2016-45 I.R.B. 683.

[6] Notice 2016-63 § 4.04.

Under this new safe harbor rule, the effective dates for use of the 2017 CSO Tables—permitted for contracts issued on or after January 1, 2017, and required for contracts issued on or after January 1, 2020—align perfectly with the effective dates under the Valuation Manual. This was not the case with the 2001 CSO Tables, and IRS action (via Notices 2004-61 and 2006-95) was needed to align the effective dates for section 7702 and 7702A purposes with those under state law. For the 2017 CSO Tables, the effective dates under the Valuation Manual were designed with the rules of section 807(d)(5)(A) and (B) in mind.

With respect to the material change rules that apply in determining a contract's issue date under the safe harbor rules, Notice 2016-63 also generally retained the structure and rules of Notice 2006-95. Thus, for purposes of the notice, contracts that are received in exchange for existing contracts will generally be treated as new contracts that are issued on the date of the exchange.[7] On the other hand, similar to Notice 2006-95, the new notice provided that a change in an existing contract is not considered to result in an exchange if the terms of the resulting contract (i.e., the amount and pattern of death benefit, the premium pattern, the rate or rates guaranteed on issuance of the contract and mortality and expense charges) are the same as the terms of the contract prior to the change.[8] Also, section 5.02 of the notice continued the rule in section 5.02 of Notice 2006-95, with modifications to take account of the 2017 CSO Tables, under which

> if a life insurance contract satisfied [a safe harbor of the notice] when originally issued, a change from the previous tables to the 2001 or 2017 CSO tables is not required if: (1) the change, modification, or exercise of a right to modify or add benefits is pursuant to the terms of the contract; (2) the state in which the contract is issued does not require use of the 2001 or 2017 CSO tables for that contract under its standard valuation and minimum nonforfeiture laws; and (3) the contract continues upon the same policy form or blank.[9]

The latter two requirements under this rule pertain to whether a contract is new under applicable law, which is relevant to the applicable law requirement of section 7702(a). The first requirement, relating to whether a change is "pursuant to the terms of the contract" has been criticized as unnecessarily restrictive, but in issuing the new notice the IRS chose not to reconsider the prior rule generally at the present time. That said, the IRS implemented two significant modifications in Notice 2016-63 relative to the material change rules of the predecessor notice:

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[7] Notice 2016-63 § 5.01.

[8] *Id.*

[9] Notice 2016-63 § 5.02.

- Notice 2016-63 provided that if the only change to an existing contract is a reduction or deletion of benefits provided under the contract, such a change will not affect the contract's issue date that applies for purposes of the notice's safe harbors.[10] Thus, for example, if a life insurance contract does not provide a contractual right to reduce or decrease benefits (such as is common with respect to the face amount of death benefit under ordinary whole life insurance contracts) and the insurer decides to permit such reductions or decreases, the change will not result in new issue treatment of the contract for purposes of the notice.

- The examples in section 5.03 of Notice 2006-95 that illustrated the operation of section 5.02 of that notice were modified in Notice 2016-63 to provide that the "changes, modifications, or exercises of contractual provisions referred to in section 5.02 of this notice include . . . reinstatement of a policy within 90 days after its lapse *or reinstatement of a policy as required under applicable state or foreign law*" [emphasis added].[11] The italicized language was not included in Notice 2006-95 and removes any implication that exercises of contractual rights as required by applicable law to reinstate benefits beyond the 90-day period referenced in the prior notice could result in new issue treatment.

GUIDELINE PREMIUM TEST ADJUSTMENTS (Chapter 4, Page 105)

Timing of Adjustments to the Guideline Premiums (Chapter 4, Page 112)

Equation 4.4 on page 114, which details formulas for one version of the "exact approach" for adjusting guideline premiums, should read as follows:

- A "level" premium P is computed so that the future contract benefits are funded by the combination of (a) and (b), where
  (a) equals $(n/12)$ times P, assumed to be paid at time of adjustment, and
  (b) equals P, assumed to be paid at each subsequent anniversary.

  P is then found by solving:

$$\left(\frac{n}{12}\right) \times P + \frac{(1-q^m)^n}{(1+i^m)^n} \times (P \times \ddot{a}_{x+t}) = NSP_{x+t-n} \text{ (as defined above)} \qquad (4.4)$$

[10] *Id.* This effectively reverses the result in PLR 201230009 (Jan. 30, 2012).

[11] Notice 2016-63 § 5.03.

MATERIAL CHANGES AND THE SECTION 7702 EFFECTIVE DATE RULE (Chapter 5, Page 155)

Footnote 28 on page 156 should be updated to include PLR 201736019 (June 15, 2017).

CORRECTION OF INADVERTENT MECs (Chapter 8, Page 286)

Table 8.3 Earnings Rates to Be Used to Calculate Either Excess Earnings or Overage Earnings (Chapter 8, Pages 290–291)

Table 8.3 updates the table published in the textbook and contains the earnings rates for years 1982 through 2017. The earnings rates for years 1982–1987 and 2008–2016 are based on the application of the formulas contained in Revenue Procedure 2008-39, while the earnings rate for 2017 is based on the arithmetic average of the earnings rates for the prior three years (i.e., years 2014-2016).

Table 8.3. Earnings rates to be used to calculate either excess earnings or overage earnings

Year	Contracts other than variable contracts	Variable contracts	Source
1982	15.0%	21.8%	Application of Rev. Proc. 2008-39 section 3.07 formulas
1983	12.8%	16.4%	
1984	13.5%	7.0%	
1985	12.0%	26.1%	
1986	9.7%	15.0%	
1987	10.0%	2.7%	
1988	10.2%	13.5%	Rev. Proc. 2008-39
1989	9.7%	17.4%	
1990	9.8%	1.4%	
1991	9.2%	25.4%	
1992	8.6%	5.9%	
1993	7.5%	13.9%	
1994	8.3%	−1.0%	

1995	7.8%	23.0%	
1996	7.7%	14.3%	
1997	7.6%	17.8%	
1998	6.9%	19.7%	
1999	7.4%	12.8%	
2000	8.0%	−5.5%	
2001	7.5%	−7.1%	
2002	7.2%	−14.1%	
2003	6.2%	19.6%	
2004	6.1%	6.9%	
2005	5.6%	2.1%	
2006	6.0%	10.0%	
2007	6.0%	3.6%	
2008	6.5%	−28.1%	Application of Rev. Proc. 2008-39 section 3.07 formulas
2009	6.3%	20.7%	
2010	5.5%	10.6%	
2011	5.2%	1.4%	
2012	4.3%	11.3%	
2013	4.7%	19.8%	
2014	4.5%	9.2%	
2015	4.4%	–1.0%	
2016	4.2%	7.6%	
2017	4.4%	5.3%	Average of prior 3 years

Table 8.4. Sample Calculations of Overage Earnings (Chapter 8, Page 291)

Table 8.4 illustrates the calculation of overage earnings. The example details the calculation of the overage earnings through the end of the 7-pay test period, which expired on December 31, 2004. (The table that follows corrects a numerical error in Table 8.4 as published in the textbook.)

Table 8.4. Sample calculations of overage earnings, Rev. Proc. 2008-39 closing agreement

Policy number:		**ABC123**		**Death benefit:**		**10,000.00**		
Original issue date:		**1/1/1998**		**Reason for MEC failure:**		**Early premium**		
Beginning of contract year	**7-pay year**	**Transaction date**	**Transaction amount**	**Cumulative amounts paid**	**Cumulative 7-pay premium**	**Overage**	**Earnings rate**	**Overage earnings**
1/1/1998	1	1/1/1998	1,142.00	1,142.00	1,142.00	0.00	6.9%	0.00
1/1/1998	1	12/26/1998	1,142.00	2,284.00	1,142.00	1,142.00	6.9%	1.25
1/1/1999	2	1/1/1999	0.00	2,284.00	2,284.00	0.00	7.4%	0.09
1/1/2000	3	1/1/2000	1,142.00	3,426.00	3,426.00	0.00	8.0%	0.11
1/1/2000	3	12/25/2000	1,142.00	4,568.00	3,426.00	1,142.00	8.0%	1.69
1/1/2001	4	1/1/2001	0.00	4,568.00	4,568.00	0.00	7.5%	0.24
1/1/2002	5	1/1/2002	1,142.00	5,710.00	5,710.00	0.00	7.2%	0.24
1/1/2002	5	12/30/2002	1,142.00	6,852.00	5,710.00	1,142.00	7.2%	0.44
1/1/2003	6	1/1/2003	0.00	6,852.00	6,852.00	0.00	6.2%	0.25
1/1/2004	7	1/1/2004	1,142.00	7,994.00	7,994.00	0.00	6.1%	0.26
Income on the contract:			0.00	Income tax:				0.00
Total taxable distributions:			0.00	Penalty tax:				0.00
Overage earnings allocated to prior distribution:			0.00	Deficiency interest:				0.00
Distribution frequency factor:			0.80					
Applicable percentage:			15%	Total overage earnings:				4.57