

APPENDIX 1 – CASH FLOW MODELING FOR C-3 RBC

This appendix is applicable for all companies who do Cash Flow Testing for C-3 RBC for Certain Annuities and Single Premium Life products.

The method of developing the C-3 component for these products is building on the work of the asset adequacy modeling but using interest scenarios designed to help approximate the 95th percentile C-3 risk.

The C-3 component is to be calculated as the sum of four amounts, but subject to a minimum. The calculation is:

- (a) For Certain Annuities or Single Premium Life Insurance products other than equity-indexed products, whether written directly or assumed through reinsurance, that the company tests for asset adequacy analysis using cash flow testing, an actuary should calculate the C-3 requirement based on the same cash flow models and assumptions used and same “as-of” date as for asset adequacy, but with a different set of interest scenarios and a different measurement of results. A weighted average of a subset of the scenario-specific results is used to determine the C-3 requirement. The result is to be divided by (1-enacted maximum federal corporate income tax rate) to put it on a pre-tax basis for LR027 Interest Rate Risk and Market Risk Column (2) Line (33).

If the “as-of” date of this testing is not Dec. 31, the ratio of the C-3 requirement to reserves on the “as-of” date is applied to the year-end reserves, similarly grouped, to determine the year-end C-3 requirement for this category.

- (b) Equity-indexed products are to use the existing C-3 RBC factors, not the results of cash flow testing.
- (c) For all other products (either non-cash-flow-tested or those outside the product scope defined above) the C-3 requirements are calculated using current existing C-3 RBC factors and instructions.
- (d) For callable/pre-payable assets (including IOs and similar investments other than those used for testing in component a) above, the after-tax C-3 requirement is 50.0% of the excess, if any, of book/adjusted carrying value above current call price. The calculation is to be done on an asset-by-asset basis. For callable/pre-payable assets used for testing in component a) above as well as those used in C-3P2 testing, the C-3 factor requirement is zero.

The total C-3 component is the sum of (a), (b), (c) and (d), but not less than half the C-3 component based on current factors and instructions.

- For this C-3 calculation, “Certain Annuities” means products with the characteristics of deferred and immediate annuities, structured settlements, guaranteed separate accounts (excluding guaranteed indexed separate accounts following a Class II investment strategy) and GICs (including synthetic GICs and funding agreements). Debt incurred for funding an investment account is included if cash flow testing of the arrangement is required by the insurer’s state of domicile for asset adequacy analysis. Variable annuity products are not to be included, including guaranteed fixed options within such products and payout annuities resulting from variable annuities reserved for under VM-21, as they are separately tested under the requirements for Variable Annuities and Similar Products. See Appendix 1b for further discussion.
- The company may use either a standard 50 scenario set of interest rates or an alternative, but more conservative, 12 scenario set (for part a, above). It may use the smaller set for some products and the larger one for others. Details of the cash flow testing for C-3 RBC methodology are contained in Appendix 1a.