



BERMUDA MONETARY AUTHORITY
LAPSE, LIQUIDITY AND
SCENARIO-BASED APPROACH RETURN
2024 Completion Instructions

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OVERVIEW

A.1. Background

1. The Bermuda Monetary Authority (Authority or BMA) reviews Bermuda's regulatory and supervisory regimes to ensure that the jurisdiction adheres to international standards and best practices for insurance regulation and supervision.
2. In that regard, in 2015 the Authority implemented changes to its regime for commercial insurers and insurance groups to enhance the statutory and prudential requirements.
3. Further, in February and July 2023, the Authority issued two Consultation Papers (CP) entitled *Proposed Enhancements to the Regulatory Regime* and *Fees for Commercial Insurers*. The BMA invited stakeholders to submit feedback on the proposed enhancements. The enhancements covered a number of areas, including Technical Provisions, Bermuda Solvency Capital Requirement (BSCR) computation and Section 6D enhancements. Copies of the CPs, guidance notes, prudential standards and instructions can be found on the BMA's website.
4. Engagement with stakeholders on the proposed Lapse, Liquidity and Scenario-Based Approach Return (LLSBA) continued, and a final template was published in October 2024. The [template](#) and [accompanying instructions](#) can be found on the BMA's website.
5. These documents provide instructions on how to complete the LLSBA template for the purposes of Scenario-Based Approach (SBA) model approval, asset approvals and year-end filings.
6. For purposes of asset approval under the SBA, registrants should complete all asset-related tabs, as well as all derivative-related tabs that are used in the SBA. However, registrants are not required to complete the SBA, lapse, or liquidity-related tabs. However, companies that use a standard approach and seek approval for affiliated assets should also complete all asset tabs.
7. For year-end filings, insurers that use the SBA should complete all tabs.
8. For year-end filings, insurers that use the standard approach should complete all asset-related tabs and the Cash Flows - Asset-related, Lapse Profile and Liquidity Projections tabs.
9. References in this document to 'insurer' shall also include 'reinsurers' and 'Bermuda Groups' unless specifically excluded.

B. Lapse, Liquidity and SBA Template - Asset Reporting

This section provides instructions on how to complete the LLSBA template on a column-by-column basis for the tabs relating to Assets and Derivatives.

The table below reflects an indicative asset class mapping from relevant BSCR Schedules to the Lapse-Liquidity-SBA-Return Template. The mapping is only indicative and is solely intended to aid insurers in categorising assets into the LLSBA template categories. In some cases, more than one mapping may be possible, depending on the specifics of the case (and any specific instructions or directions by the BMA). Insurers are expected to perform classification based on the nature, characteristics and risks of specific assets in compliance with prudential rules, instructions and relevant guidance. This helps to avoid potential confusion during the BSCR process and, in particular, for Schedules IIX, which outline the capital requirement calculations.

| Lapse-Liquidity-SBA-Return Template | BSCR Schedule IIB (EBS) Field description | BSCR Schedule VI Field description |
|--|---|---|
| Cash | Cash and Cash Equivalents | Cash |
| Short-Term Treasury Bills | Cash and Cash Equivalents | Other |
| Certificates of Deposit | Cash and Cash Equivalents | Certificates of Deposit |
| Short-Term Commercial Paper | Cash and Cash Equivalents | Short-Term Commercial Paper |
| Money Market Funds | Cash and Cash Equivalents | Money Market Funds |
| Other Cash Equivalents | Cash and Cash Equivalents | Other |
| Sovereign Bonds | Corporate and Sovereign Bonds | Sovereign Bonds |
| Federal/Central Government Agencies | Corporate and Sovereign Bonds | Sovereign Bonds |
| Local Governments and Regional Authorities | Corporate and Sovereign Bonds | Municipals |
| Supranationals | Corporate and Sovereign Bonds | Supranationals (Multilateral Development Banks and International Organisations) |
| Corporate Bonds - Non-Financial | Corporate and Sovereign Bonds | Corporate Bonds |
| Corporate Bonds - Financial | Corporate and Sovereign Bonds | Corporate Bonds |
| Private Placements | Corporate and Sovereign Bonds | Private Placements |
| Covered Bonds | Corporate and Sovereign Bonds | Other - Secured Bonds |
| Other - Secured Bonds | Corporate and Sovereign Bonds | Other - Secured Bonds |
| Other - Unsecured Bonds | Corporate and Sovereign Bonds | Other - Unsecured Bonds |
| Other - Short-Term Debt | Corporate and Sovereign Bonds | Other - Unsecured Bonds |
| ETF - Sovereigns | Corporate and Sovereign Bonds | Exchange-Traded Fund - Sovereigns |
| Mutual Fund - Sovereigns | Corporate and Sovereign Bonds | Mutual Fund - Sovereigns |
| ETF - Corporates | Corporate and Sovereign Bonds | Exchange-Traded Fund - Corporates |
| Mutual Fund - Corporates | Corporate and Sovereign Bonds | Mutual Fund - Corporates |
| ETF - Short-Term Debt | Corporate and Sovereign Bonds | Exchange-Traded Fund - Corporates |
| Mutual Fund - Short-Term Debt | Corporate and Sovereign Bonds | Mutual Fund - Corporates |
| Other Bond Funds | Corporate and Sovereign Bonds | Other Funds |
| Other Money Market Funds | Cash and Cash Equivalents | Money Market Funds |
| Leveraged Loans – Middle Market | Corporate and Sovereign Bonds | Middle Market Loans |
| Leveraged Loans – Large Cap | Corporate and Sovereign Bonds | Leveraged Loans |
| Other Direct Private Lending | Asset Backed Securities | Other Direct Private Lending |

| | | |
|--|---|---------------------------------------|
| Collateral Loans | Collateral Loans | Collateral Loans |
| Policy Loans | Policy Loans | Policy Loans |
| Other Loan Fund | Asset Backed Securities | Other Loan Fund |
| Listed Preferred Equity - Direct | Preferred Shares | Listed Preferred Equity - Direct |
| Direct Preferred Equity - ETF | Preferred Shares | Listed Preferred Equity - ETF |
| Listed Preferred Equity - Mutual Fund | Preferred Shares | Listed Preferred Equity - Mutual Fund |
| Private Preferred Equity - Direct | Preferred Shares | Private Preferred Equity - Direct |
| Private Preferred Equity - Mutual Fund | Preferred Shares | Private Preferred Equity - Fund |
| Other - Listed Preferred Equity | Preferred Shares | Other - Listed Preferred Equity |
| Other - Private Preferred Equity | Preferred Shares | Other - Private Preferred Equity |
| Other Direct Loans | Asset Backed Securities (ABS) | Other Direct Loans |
| Listed Equity - Direct | Listed Equity Securities in Developed Markets | Listed Equity - Direct |
| Listed Equity - ETF | Other Equities/Other Assets | Listed Equity - ETF |
| Equity - Strategic Holding | Strategic Holdings - Unlisted | Private Equity - Direct |
| Listed - Mutual Fund | Other Equities/Other Assets | Listed Equity - Mutual Fund |
| Private Equity - Direct | Other Equities/Other Assets | Private Equity - Direct |
| Private Equity - Mutual Fund | Other Equities/Other Assets | Private Equity - Fund |
| Other - Listed Equity | Other Equities/Other Assets | Other - Listed Equity |
| Other - Private Equity | Other Equities/Other Assets | Other - Private Equity |
| RMBS - Agency | Residential Mortgage-Backed Securities (RMBS) | RMBS - Agency |
| RMBS - Non-Agency | RBMS | RMBS - Non-Agency |
| CMBS - Agency | Commercial Mortgage-Backed Securities (CMBS) | CMBS |
| CMBS - Non-Agency | CMBS | CMBS |
| CLO | ABS | CLOs |
| CDO | ABS | CDOs |
| Auto Loan ABS | ABS | Auto Loan ABS |
| Student Loan ABS | ABS | Student Loan ABS |
| Credit Card Receivable ABS | ABS | Credit Card Receivable ABS |
| Other ABS | ABS | Other ABS |
| Other Structured Securities | ABS | Other ABS |
| Direct Real Estate - Residential | Equity Real Estate 2 | Direct Real Estate - Residential |
| Direct Real Estate - Commercial | Equity Real Estate 2 | Direct Real Estate - Commercial |
| Direct Real Estate - Industrial | Equity Real Estate 2 | Direct Real Estate - Industrial |
| Direct Real Estate - Land | Equity Real Estate 2 | Direct Real Estate - Land |
| Direct Real Estate - Other | Equity Real Estate 2 | Direct Real Estate - Other |
| Real Estate Funds - Residential | Equity Real Estate 2 | Real Estate Funds - Residential |
| Real Estate Funds - Commercial | Equity Real Estate 2 | Real Estate Funds - Commercial |
| Real Estate Funds - Industrial | Equity Real Estate 2 | Real-Estate Funds - Industrial |
| Real Estate Funds - Land | Equity Real Estate 2 | Real Estate Funds - Land |
| Infrastructure Debt | Corporate and Sovereign Bonds | Infrastructure Loans |
| Infrastructure Bonds | Corporate and Sovereign Bonds | Other - Unsecured Bonds |
| Infrastructure Equity Investments | Infrastructure | Equity investments in Infrastructure |
| Infrastructure Funds | Infrastructure | Other Loan Fund |

| | | |
|---|--|--|
| Commercial and Farm Mortgages | Mortgage Loans - Other Commercial and Farm | Commercial and Farm Mortgages |
| Other Commercial Real Estate Loans | Mortgage Loans - Other Residential | Other Commercial Real Estate Loans |
| Mortgage Loan Fund - Commercial | Mortgage Loans - Other Commercial and Farm | Mortgage Loan Fund - Commercial |
| Residential Mortgages | Mortgage Loans - Other Residential | Residential Mortgages |
| Other Residential Loans | Mortgage Loans - Other Residential | Other Residential Loans |
| Mortgage Loan Fund - Residential | Mortgage Loans - Other Residential | Mortgage Loan Fund - Residential |
| Equity Release/Reverse Mortgages | Asset Backed Securities | Equity Release/Reverse Mortgages |
| Hedge Funds | Other Equities/Other Assets | Hedge Funds |
| Commodities - Direct | Other Equities/Other Assets | Commodities - Direct |
| Commodities - ETF | Other Equities/Other Assets | Commodities - ETF |
| Commodities - Mutual Funds | Other Equities/Other Assets | Commodities - Mutual Funds |
| Catastrophe Bonds | Other Equities/Other Assets | Catastrophe Bonds |
| Other Insurance Linked Securities | Other Equities/Other Assets | Other Insurance-Linked Securities |
| Private Credit Fund | Corporate and Sovereign Bonds | Private Credit Fund |
| Advances to Affiliates | Advances to Affiliates | Advances to Affiliates |
| Investments in Affiliates | Strategic Holdings - Unlisted | Investments in Affiliates |
| Other Alternative Investments - Other | Other Equities/Other Assets | Other Alternative Investments - Other |
| Investment Income Due and Accrued | Accrued Investment Income | Investment Income Due and Accrued |
| Accounts and Premiums Receivable | Accounts and Premiums Receivable | Accounts and Premiums Receivable |
| SAC - Long-Term Business - Variable Annuities | Schedule IID (look-through) | SAC - Long-Term Business - variable annuities |
| SAC - Long-Term Business - Others | Schedule IID (look-through) | SAC - Long-Term Business - others |
| SAC - General Business | Schedule IID (look-through) | SAC - General Business |
| Deposit Assets | Schedule IIE (look-through) | Deposit Assets |
| Other Sundry Assets | Schedule IIF (look-through) | Other Sundry Assets |
| Letters of Credit, Guarantees and Other Instruments | Schedule IIF (look-through) | Letter of Credit, Guarantees and Other Instruments |
| Other Assets - Other | Other Equities/Other Assets | Other Assets - Other |

B.1.1 Common Field Names

This section provides definitions for common field names that are contained in most or all asset tabs. Asset-specific definitions are then included in sections B.1.3 to B.1.9

| Field | Description |
|---|---|
| SBA Sub-portfolio Number | If separate liability sub-portfolios exist, then the sub-portfolio number reflects the identification number of each respective sub-portfolio. Assets backing each sub-portfolio should be non-fungible and individually distinguishable using the SBA sub-portfolio number. |
| Asset ID: CUSIP/ISIN/Internal ID | An asset-level unique identification code. |
| Asset Name | Name of the debt instrument in question. This may reflect details of the issuing entity (borrower) and unique elements distinguishing the issue in question from other debt instruments issued by the same borrower. |
| BMA Asset Classification | This field should reflect the asset class for each asset as determined to be appropriate with reference to the list of BMA Asset Classes. |
| Currency | Please specify the denomination of the currency, e.g., USD, GBP, JPY, or EUR. It need not be the currency of the country where the debt was issued. |
| Country of Risk | Please specify the country where the debt structure (bond, loan, etc.) was issued. |
| Ownership Vehicle | Please specify whether the asset is held directly, e.g., direct property investment or direct investment in a corporate bond or loan tranche or whether the investment uses an investment interface such as an investment trust, fund or some other form of (collective) investment scheme. |
| Asset Type | This should reflect the asset type category used in the modelling process. |
| NAIC Rating | The security rating published by the NAIC Securities Valuation Office (SVO). |
| BSCR Rating Mapping | The BSCR Rating is determined by the rules set out in the Instructions Handbook, i.e., the lowest of the ratings acceptable for BSCR purposes. |
| Purchase Date | The date of purchase of the debt instrument. |
| Maturity Date | If a debt instrument (bond, loan tranche, etc.) exists, please specify its maturity date. |
| Market Value | The mark-to-market (for tradable assets) or mark-to-model (for private placements) fair value of the asset. |
| Coupon Type | Please specify the nature of the coupon payment, either fixed, floating or other, where others could reflect, for example, index-linked. |
| Floating Margin (in bps) | Please specify the margin over the floating rate index that should be applied. If the coupon is determined by a floating rate curve, the floating Margin would be the margin that should be added to the projected forward rate to determine the projected coupon rate. |
| Floating Reference Index | Please specify the name or reference index of the curve that should be used to determine floating coupon rates for the asset in question. The floating reference Index should correspond to a curve specified in the <SBA_CurveInput> tab. See C.1.1 |
| Risk-Free Curve Used for Spread Determination | This field should reflect the risk-free curve used to determine the (valuation) spread. The entry into this field should correspond to a curve entry in the <SBA_CurveInput> tab. See C.1.1 |

B.1.2 Rating Field Names – Bonds, Alternatives and Structured Assets

This section contains definitions of commonly used ratings information.

| Field | Description |
|--|---|
| Publicly Issued Rating – S&P | The security rating published by S&P. |
| Publicly Issued Rating - Moody's | The security rating published by Moody's. |
| Publicly Issued Rating - AM Best | The security rating published by AM Best. |
| Publicly Issued Rating - Fitch | The security rating published by Fitch. |
| Publicly Issued Rating - Other Approved Rating Agency [Worst Rating] | This field should reflect the lowest rating of the public credit ratings issued. |
| Name of the Approved Rating Agency | Please specify the name of the 'Other Approved Rating Agency [Worst Rating]. ' |
| BMA Approved Internal Rating | This field should reflect the internally derived credit rating approved by the BMA (where it exists). |
| Worst of Privately Issued Ratings - All Approved Rating Agencies | This field should reflect the lowest rating of the private credit ratings issued, taking into account both externally issued ratings and internally issued ratings. |

B.1.3 Bonds and Other Assets

10. The bonds and other assets category includes most of the traditional investment asset classes in government bonds, corporate fixed income, and private placement debt not covered by other bespoke asset classes and common stock investments used by insurance companies.

| Field | Description |
|--|---|
| Issuance Type (Public or Private) | Please specify whether the asset is publicly tradeable, for example, via an exchange or whether it is a private placement. |
| Issuer/Counterparty | Name of the borrowing entity that has issued the debt instrument (bond, loan, etc.). In the case of a Special Purpose Vehicle (SPV), this will be the name of the OpCo/Project Co not the HoldCo. |
| US GAAP/IFRS Valuation Hierarchy Level [Level 1: quoted prices in active markets; Level 2: based on observable market data other than quoted prices; Level 3: unobservable inputs] | Please select the valuation criteria used to value the security. |
| Issue Date | This is the date of issue of the debt instrument. |
| First Call Date | If appropriate, please specify the First Call Date. This is the first date, before maturity, at which the issuer has the right to redeem callable debt instruments (loans, bonds, etc.) at or close to par. |
| Nominal Amount | This field reflects the amount borrowed. Please specify the holding size in units. For derivatives, this will reflect the notional value of the derivative. |
| Book Value | The accounting balance sheet value used in the GAAP and/or the IFRS accounts. According to most accounting practices, it typically reflects the original cost after allowance for depreciation, amortisation and/or impairment costs. |
| Redemption Type | Please specify the nature of the expected redemption payment. Select from the available drop-down menu options. |
| Number of Coupon Payments Per Year | Please specify the annual frequency at which regular coupon or interest payments are expected. |
| Next Coupon Payment Date | Please specify the Next Coupon Payment Date. |

| | |
|---|---|
| Fixed Coupon (%) | Please specify the Fixed Coupon as a percentage of nominal/holding size. |
| Option-Adjusted Duration | OAD is the duration for a bond with an embedded option when the value is calculated to include the expected change in cash flow caused by changes in market interest rates. |
| Weighted Average Life | Weighted average life refers to the estimate of how long it would take to repay half of the principal balance on a debt instrument, such as a loan, mortgage or bond. To find a loan's weighted average life, you would divide the weighted total payments by the unweighted total payments. Weighted average life is commonly used for loans, mortgages and bonds. |
| Gross Market Yield (%) | An investment's gross yield to maturity represents its profit before taxes and expenses are deducted. The gross yield is expressed as a percentage. The yield of a fixed income security equates the present value of future cash flows to the current price. |
| Gross Book Spread (in bps) | The total purchase spread of the security at the time of acquisition. |
| Option-Adjusted Gross Market Spread (in bps) | The number of basis points the spot curve would have to shift for the present value of the cash flows to equal the security's price. Typically, an analyst uses treasury yields for the risk-free rate. |
| Investment expenses, FX Hedging Costs and Other Fees (in bps) | Please specify any costs associated with the management of the investment as a percentage of nominal/holding size, including, inter alia, the costs related to investment management fees, hedging costs, bid-offer spreads or other investment and trading expenses. |

B.1.4 Alternatives

- 11.** Alternatives are assets that do not traditionally fit into the investment categories reported in bonds and other assets. Examples of alternatives include hedge funds or private equity. Assets under this classification should clearly disclose if they include Payment in Kind (PIK) features in the Coupon and Redemption Type columns.

| Field | Description |
|---|---|
| Issuance Type (Public or Private) | Please specify whether the asset is publicly tradeable, for example, via an exchange or whether it is a private placement. |
| Issuer/Counterparty | Name of the borrowing entity that has issued the debt instrument (bond, loan, etc.). In the case of an SPV, this will be the name of the OpCo/Project Co, not the HoldCo. |
| US GAAP/IFRS Valuation Hierarchy Level [Level 1: quoted prices in active markets; Level 2: based on observable market data other than quoted prices; Level 3: unobservable inputs] | Please select the valuation criteria used to value the security. |
| Issue Date | The date of issue of the debt instrument. |
| First Call Date | If appropriate, please specify the first call date. This is the first date, before the maturity date, at which the issuer has the right to redeem callable debt instruments (loaned, bonds, etc.) at or close to par. |
| Nominal Amount | This field reflects the amount borrowed. Please specify the holding size in units. For derivatives, this will reflect the notional value of the derivative. |
| Book Value | The accounting balance sheet value used in the GAAP and/or IFRS accounts. According to most accounting practices, this typically reflects the original cost after allowance for depreciation, amortisation and/or impairment costs. |
| Redemption Type | Please specify the nature of the expected redemption payment. Select from the drop-downs available. |
| Number of Coupon Payments Per Year | Please specify the annual frequency at which regular coupon or interest payments are expected. |
| Next Coupon Payment Date | Please specify the next coupon payment date. |
| Fixed Coupon (%) | Please specify the fixed coupon as a percentage of nominal/holding size. |
| Option-Adjusted Duration | OAD is the duration for a bond with an embedded option when the value is calculated to include the expected change in cash flow caused by changes in market interest rates. |
| Weighted Average Life | Weighted average life refers to the estimate of how long it would take to repay half of the principal balance on a debt instrument, such as a loan, mortgage or bond. To find a loan's weighted average life, you would divide the weighted total payments by the unweighted total payments. Weighted average life is commonly used for loans, mortgages and bonds. |
| Gross Market Yield (%) | An investment's gross yield to maturity represents its profit before taxes and expenses are deducted. The gross yield is expressed as a percentage. The yield of a fixed income security equates the present value of future cashflows to the current price. |
| Gross Book Spread (in bps) | The total purchase spread of the security at the time of acquisition. |
| Gross Market Spread (in bps) | Number of basis points the spot curve would have to shift for the present value of the cash flows to equal the security's price. Typically, an analyst uses Treasury yields for the risk-free rate. |

B.1.5 Structured Assets

12. A structured product, also known as a market-linked investment, is a pre-packaged structured finance investment strategy based on a single security, a basket of securities, options, indices, commodities, debt issuance or foreign currencies and, to a lesser extent, derivatives. Structured products can be quite varied — there are numerous varieties of derivatives and underlying assets — but they may be classified under the following categories: commercial mortgage-backed, residential mortgage-backed, Collateralised Loan Obligations (CLO) and other asset-backed securities.

| Field | Description |
|--|---|
| Issuance Type (Public or Private) | Please specify whether the asset is publicly tradeable, for example, via an exchange or whether it is a private placement. |
| Structured Asset Type | If the asset is a structured asset, this field should reflect the type of structured asset. |
| Issuer/SPV | The name of the borrowing entity that has issued the debt instrument (bond, loan, etc.). In the case of an SPV, this will be the name of the OpCo/Project Co, not the HoldCo. |
| Collateral Manager | The Collateral Manager for any RMBS/ABS security as described in the prospectus. |
| Stage | Please select if the asset is being reinvested, amortised, or other. |
| US GAAP/IFRS Valuation Hierarchy Level [Level 1: quoted Prices in active markets; Level 2: based on observable market data other than quoted prices; Level 3: unobservable Inputs] | Please select the valuation criteria used to value the security. |
| Vintage/Issue Year | The year of issue of the debt instrument/tranche. |
| First Call Date | If appropriate, please specify the first call date. This is the first date, prior to the maturity date, at which the issuer has the right to redeem callable debt instruments (loaned, bonds, etc.) at or close to par value. |
| Start of Reinvestment Period (Date) | Please include the date when the reinvestment period begins. |
| End of Reinvestment Period (Date) | Please include the date when the reinvestment period ends. |
| Nominal Amount | This field reflects the amount borrowed. Please specify the holding size in units. For derivatives, this will reflect the notional value of the derivative. |
| Book Value | This is the accounting balance sheet value used in the GAAP and/or IFRS accounts. According to most accounting practices, this typically reflects the original cost after allowance for depreciation, amortisation and/or impairment costs. |
| Number of Coupon Payments Per Year | Please specify the frequency per annum at which regular coupon or interest payments are expected. |
| Next Coupon Payment Date | Please specify the next coupon payment date. |
| Fixed Coupon (%) | Please specify the fixed coupon as a percentage of nominal/holding size. |
| Discount Margin (bps) | Please specify the margin of discount in basis points |
| Option-Adjusted Duration | The OAD is the duration for a bond with an embedded option when the value is calculated to include the expected change in cash flow caused by changes in market interest rates. |
| Weighted Average Life | Weighted average life refers to the estimate of how long it would take to repay half of the principal balance on a debt instrument, such as a loan, mortgage or bond. To find a loan's |

| | |
|--|---|
| | weighted average life, you would divide the weighted total payments by the unweighted total payments. Weighted average life is commonly used for loans, mortgages and bonds. |
| Gross Market Yield (%) | An investment's gross yield to maturity represents its profit before taxes and expenses are deducted. The gross yield is expressed as a percentage. The yield of a fixed income security equates the present value of future cash flows to the current price. |
| Gross Book Spread (in bps) | The total purchase spread of the security at the time of acquisition. |
| Option-Adjusted Gross Market Spread (in bps) | The number of basis points the spot curve would have to shift for the present value of the cash flows to equal the security's price. Typically, an analyst uses treasury yields for the risk-free rate. |
| Tranche Thickness (%) | This represents the percentage of the total capital/collateral structure that the respective tranche accounts for. |
| Subordination (%) | The percentage of the total capital that is subordinate to the tranche in question. |
| Interest Coverage Ratio (%) | This is calculated by dividing the Earnings Before Interest and Tax (EBIT) by the interest payable for the current year. |
| Cash Flow Diversion Threshold (%) | The threshold that sets the Loan to Value (LTV) level above which cash generated should be diverted into a ringfenced account for the purpose of repaying debt. |
| Over-collateralisation (%) | The ratio of the total collateral underlying the structure to the total of the loan values that comprise the structure. |
| Annual Constant Default Rate (CDR) Threshold | The proportion of 90+ days delinquent component loans within a structure that would trigger a technical default. |
| Modelled Collateral Default Assumption (%) | The proportion of total collateral lost that would trigger a default in default modelling of the structure. |
| Prepayment Assumption (%) | If pre-payment is expected, please specify the percentage of the original capital borrowed that is expected to be repaid at regular intervals. |
| Modelled Collateral 12-Month Recovery Assumption (%) | The percentage of collateral is assumed, within the modelling, to be recovered in 12 months following default. |

B.1.6 Real Estate (Equity Owned)

13. This category contains all Equity Interest in Real Estate Investments, including commercial, residential and other equity real estate interests. This category does not include debt investments supported by real estate. It also includes real estate that has been acquired through foreclosure on defaulted debt investments, usually referred to in the banking community as Other Real Estate Owned (OREO).

| Field | Description |
|---|--|
| State, if Country is USA | Please specify the US State location of the collateral, if applicable. If multi-state, please identify the primary location of the collateral. |
| Property Sector | Please specify the property type of collateral. |
| Class of Building (where applicable) | Please identify if the property is classified as Type A, B or C. |
| Purchase Price | This is the price paid for the asset on the trade date. |
| Last Valuation/Appraisal Date | Please specify the latest valuation or appraisal date for the property. |
| Is Valuer Internal/Affiliated or Third-Party? | Please identify if the appraisal is done by an independent appraiser or the registrant's asset manager. |
| Original Property Value (Value at loan origination) | The total acquisition price of the asset at the purchase date. Please identify if this amount differs from the fair market value at acquisition. |
| Property Value (at Last Valuation Date) | Specify the property value shown at the latest valuation period. |
| Lien - First or Second | Please describe the lien priority on the asset securing the loan. |
| Current Market Value of Property | Please delineate the latest market value at the time of the submission. |
| Gross Income Generated by Property During the Year | The total gross rents and other income generated by the property during the current year. |
| Expected Gross Annual Income Assuming Full Utilisation | The total gross rents and other income projected when the property is fully occupied at market rents. |
| Current Year's Depreciation | The last twelve months annualised depreciation. |
| Taxes, Maintenance, Borrowing and Other Property Expenses | Total direct expenses realised by the property during the current period. |
| Amount of Income Over 30 Days Due | The total past due income on property, including late fees and charges. |
| Income Frequency Per Year | The rent payment frequency from tenants (usually monthly). |
| Outstanding Lease Term in Months | The number of months remaining on the tenant's lease. |

B.1.7 Infrastructure Assets (Investment Owned)

14. Investment- owned infrastructure assets are private placement loans or project finance SPV- issued debt instruments to fund infrastructure projects.
15. Infrastructure projects are typically long-lived capital development projects. These projects typically comprise several phases during which capital is raised, including the planning phase (one to three years), the development phase (one to five years) and the operation phase (can range from five years to 50 plus years). As a result, the debt structure may reflect features such as a forward start or delayed repayments, whereby there exists a lag time between loan origination (where the money is lent to the borrower) and the start of coupon and/or capital repayments.
16. Examples of infrastructure assets include energy generation plants, roads, bridges, tunnels, airports and transportation systems.

| Field | Description |
|--|---|
| State, if Country is USA | Please specify the US State location of the collateral, if applicable. If multi-state, please identify the primary location of the collateral. |
| Infrastructure Type | Please identify the specific type of the infrastructure asset. |
| Infrastructure Sector | Please identify the asset sector of the infrastructure investment. |
| Is Valuer Internal/Affiliated or Third-Party? | Please identify if the appraisal is done by an independent appraiser or the registrant's asset manager. |
| Cost at Purchase | The total purchase value of the asset, including transaction costs. |
| Estimated Current Value | Please delineate the latest estimated market value at the time of the submission. |
| Expected Useful Life at Purchase Date (in years) | The expected service life of the acquired asset at the purchase date. |
| Self-Operated or Leased | Specify whether the asset is owned and operated directly or leased by the investor. |
| Prepayment Assumption (%) | If pre-payment is expected, please specify the percentage of the original capital borrowed that is expected to be repaid at regular intervals. |
| Outstanding Lease Term in Months (if leased) | The remaining term under the lease is being operated. |
| Estimated Gross Current Year Income | The current year's total projected income from the operations. |
| Previous Accounting Period Gross Income | The prior period's total operating income is included in the latest financials. |
| Maintenance, Asset Management and Other Expenses/Deductions (in bps) | Please disclose each key expense area as a percentage of total revenue (in bps). |
| External Cash Flow Reference | Please provide a unique identification code to map between the cash flows specified and the corresponding details in the appropriate asset-listing tab. |
| Amount of Income Over 30 Days Due | The total past due income on property, including late fees and charges. |

B.1.8 Commercial Mortgage Loans

17. A commercial mortgage loan, or commercial real estate loan, is a legally enforceable mortgage secured by a first lien on commercial property as opposed to residential property. Commercial Real Estate (CRE) refers to finished property that is used for non-residential purposes, such as (but not limited to) offices, retail space, hospitals, hotels and warehouses. Residential buildings with more than four dwelling units are also considered CRE.

| Field | Description |
|--|--|
| State, if Country is USA | Please specify the US State location of the collateral, if applicable. If multi-state, please identify the primary location of the collateral. |
| Name of the Counterparty | Please identify the named counterparty in the contract. |
| Last Valuation Date for Property | Please specify the latest valuation or appraisal date for the property. |
| Is Valuer Internal/Affiliated or Third-Party? | Please identify if the appraisal is done by an independent appraiser or the registrant's asset manager. |
| Commercial Property Type | Please specify the specific classification of the commercial property. |
| Lien - First or Second | Please describe the lien priority on the asset securing the loan. |
| Type of Borrowing | Please provide a description of the purpose of the borrowing. |
| Class of Building (where applicable) | Please identify if the property is classified as Type A, B or C. |
| Option-Adjusted Duration | OAD is the duration for a bond with an embedded option when the value is calculated to include the expected change in cash flow caused by changes in market interest rates. |
| Prepayment Option (Yes/ No) | Please specify whether or not the borrower has the option to make pre-payments in respect of the nominal amount borrowed. |
| Prepayment Assumption (%) | If pre-payment is expected, please specify the percentage of the original capital borrowed that is expected to be repaid at regular intervals. |
| Delinquency Status | Please select the delinquency status from the drop-down list. |
| Original Loan Balance | The amount of the original loan at inception. |
| Current Loan Balance | The amount outstanding on the loan at the current valuation date. |
| Original Loan to Value (LTV) | The value of the original loan is equal to the value of the underlying collateral on the same date. Underlying collateral is generally expected to reflect property values in the context of property-backed investments. |
| Current LTV | The ratio of the value of the currently outstanding loan principle to the most recently assessed value of the underlying collateral. In the context of property-backed investments, collateral value would reflect the most recent property valuation. |
| Modified Debt Service Coverage Ratio (DSCR) with 25-year amortisation schedule | The DSCR is the ratio of 12-month net operating income to 12-month debt service costs, where debt service costs include interest and capital repayments. It is calculated using an assumed 25-year amortisation schedule with a constant, assumed amortisation rate. The use of the 25-year amortisation schedule helps smooth the impact of debt repayments vs interest in the calculated DSCR. |
| Interest Due and Unpaid | This should reflect accrued interest due to be paid that has not yet been paid. |
| Capitalised Deferred Interest/Payment in Kind (cumulative) | The amount of interest that has been added to the capital amount outstanding. |
| Redemption Type | Please specify the nature of the expected redemption payment. Select from the drop-downs available. |
| Number of Interest Payments Per Year | Please specify the frequency per annum at which regular coupon or interest payments are expected to take place. |

| | |
|-----------------------------|--|
| Next Interest Payment Date | Please specify the date on which the next coupon or interest payment is expected to be received. |
| Fixed Rate (%) | Please specify the fixed coupon as a percentage of nominal/holding size. |
| Gross Market Spread | This is the number of basis points the spot curve would have to shift for the present value of the cash flows to equal the security's price. Typically, an analyst uses treasury yields for the risk-free rate. |
| Floating Margin (in bps) | Please specify the margin over the floating rate index that should be applied. In the case that the coupon is determined with reference to a floating rate curve, the floating margin would be the margin that should be added to the projected forward rate to determine the projected coupon rate. |
| Next Amortisation Date | Please specify the next date on which a pre-payment is expected to be made. |
| Amortisation Frequency | Please specify the frequency per annum at which regular pre-payments are expected to take place. |
| Balloon Payment at Maturity | Please specify the amount of capital borrowed that is expected to be paid at maturity. For non-amortising loans, this would be the borrowed capital. For amortising loans or loans that have experienced partial pre-payments, this would be the amount outstanding at maturity. |

B.1.9 Residential Mortgage Loans

18. A residential mortgage loan, or residential real estate loan, is a legally enforceable mortgage secured by a first lien on residential real estate. Residential real estate consists of finished properties that have the nature of a dwelling and satisfy all applicable laws and regulations, enabling the property to be occupied for housing purposes (i.e., residential property). Residential properties with more than four dwellings are considered commercial real estate.

| Field | Description |
|--|---|
| State, if Country is USA | Please specify the US State location of the collateral, if applicable. If multi-state, please identify the primary location of the collateral. |
| BSCR Rating Mapping | BMA BSCR rating equivalent to the 'Worst of Privately Issued Ratings' for the issuing entity. |
| Is Valuer Internal/Affiliated or Third-Party? | Please identify if the appraisal is done by an independent appraiser or the registrant's asset manager. |
| Residential Property Type | Please identify the residential property type - single-family, multi-family, condo, co-op, land, etc. |
| Lien - First or Second | Please describe the lien priority on the asset securing the loan. |
| Type of Borrowing | Please provide a description of the purpose of the borrowing. |
| Class of Building (where applicable) | Please identify if the property is classified as Type A, B or C. |
| Purchase Date | This is the date of purchase of the debt instrument. |
| Prepayment Option (Yes/ No) | Please specify whether or not the borrower has the option to make pre-payments in respect of the nominal amount borrowed. |
| Prepayment Assumption (%) | If pre-payment is expected, please specify the percentage of the original capital borrowed that is expected to be repaid at regular intervals. |
| Delinquency Status | Please select the delinquency status from the drop-down list. |
| Original Loan Balance | The amount of the original loan at inception. |
| Current Loan Balance | The amount outstanding on the loan at the current valuation date. |
| Original Loan to Value (LTV) | Value of the original loan to the value of the underlying collateral on the same date. Underlying collateral is generally expected to reflect property values in the context of property-backed investments. |
| Current Combined Loan to Value (CLTV) | The ratio of the total outstanding principle with respect to all secured loans on a property to the (most recently assessed) value of that property. |
| Debt-to-Income | The ratio of total monthly debt payments to total monthly gross income. |
| FICO Score | The borrower's FICO Score. |
| Interest Due and Unpaid | This should reflect accrued interest due to be paid that has not yet been paid. |
| Capitalised Deferred interest / Payment in Kind (cumulative) | The amount of interest that has been added to the capital amount outstanding. |
| Coupon Type | Please specify the nature of the coupon payment, either fixed, floating or other, where other could reflect, for example, index linked. |
| Next Interest Payment Date | Please specify the date on which the next coupon or interest payment is expected to be received. |
| Fixed Rate (%) | Please specify the fixed coupon as a percentage of nominal/holding size. |
| Gross Market Spread | This is the number of basis points the spot curve would have to shift for the present value of the cash flows to equal the security's price. Typically, an analyst uses treasury yields for the risk-free rate. |
| Floating Margin (in bps) | Please specify the margin over the floating rate index that should be applied. In the case that the coupon is determined with reference to a floating rate curve, the floating margin would be the |

| | |
|-----------------------------|---|
| | margin that should be added to the projected forward rate to determine the projected coupon rate. |
| Floating Reference Index | Please specify the name or reference index of the curve that should be used to determine floating coupon rates for the asset in question. The Floating Reference Index should correspond to a curve specified in the <SBA_CurveInput> tab. See C.1.1. |
| Amortisation Frequency | Please specify the frequency per annum at which regular pre-payments are expected. |
| Balloon Payment at Maturity | Please specify the amount of capital borrowed that is expected to be paid at maturity. For non-amortising loans, this would be the borrowed capital. This would be the amount outstanding at maturity for amortising loans or loans that have experienced partial pre-payments. |

B.1.10 Derivatives – Aggregates

19. The aggregate of all positions for all derivatives, including commodities, credit, foreign exchange, equity, interest rates and others. Aggregation includes all positions owned or controlled by the registrant.

B.1.11 Derivative Open Positions

20. Active derivative positions held by the registrant at the measurement date. Please include the derivative pay and receive legs separately.

| Field | Description |
|--|--|
| Sub-portfolio Number | If separate liability sub-portfolios exist, then the sub-portfolio number reflects the identification number of each respective sub-portfolio. Assets backing each sub-portfolio should be non-fungible and individually distinguishable using the SBA sub-portfolio number. |
| CUSIP/ISIN | An asset-level unique identification code. |
| Description of Derivative | This field should describe the type of derivative, such as an Interest Rate Swap (IRS) or Inflation Swap, and the leg the asset line refers to, such as a Receiver or Payer. |
| Purpose of Derivative | This field should reflect the purpose of the derivative as selected from the drop-down options available. |
| If Derivative Used for Hedging, Description of Item Being Hedged | This field should reflect details of the item being hedged; for example, a cross-currency swap used to hedge non-USD cash flows should refer to the sub-portfolio or group of assets being hedged. |
| Derivatives Program Name | This will reflect the internal project name used to describe the collective derivatives used for the purposes described. |
| Exchange, Counterparty or Central Clearinghouse | Please specify the name of the counterparty to the transaction. This could be the name of the investment bank or the originator. |
| ISDAs in Place? | An International Swaps and Derivatives Association (ISDA) Master Agreement is a standardised contract used to govern over-the-counter (OTC) derivatives transactions. Please confirm if all supporting swap agreements and documentation are signed and received. |
| CSA Type | A Credit Support Annex (CSA) is a document that defines the provision of collateral by the parties in derivatives transactions. Please specify the type of collateral defined by the CSA. |
| Bid/Ask Spread (bps) | Please specify the difference (spread) between the ask and bid price for the asset in basis points. |
| Trade Date | Date on which the asset was purchased. |
| Valuation Date | Date to which asset valuation applies. For mark-to-market values, this will be the date on which the value was observed; for other values, this will be the date on which the value was determined. All asset values should reflect the same valuation date. |
| Date of Maturity or Expiration | Please specify the date of maturity or expiration of the investment. |
| Number of Contracts | Please specify the contract number. |
| Currency | Please specify the currency of denomination, e.g., USD, GBP, JPY and EUR. It need not be the currency of the country where the debt was issued. |
| Notional Amount | This field reflects the amount borrowed. Please specify the holding size in units. For derivatives, this will reflect the notional value of the derivative. |
| Fair Value | This is the value consistent with fair value and market-consistent principles. This should reflect the market value; for tradeable assets; non-tradeable assets will reflect the mark-to-model value. |
| Premium Paid at Inception | Please state the purchase price at inception. |
| Effective Duration | A bond with an embedded option when the value is calculated to include the expected change in cash flow caused by changes in market interest rates. |
| Credit Spread Duration | The duration will equal the percentage change in a security's price when credit spreads change by 1%. The spread duration is equivalent to the modified duration for all securities other than Treasuries. A change in the |

| | |
|--|--|
| | credit spread of 1% or a change in Treasury yields of 1% will cause an equivalent shift in yield-to-maturity of a non-treasury (and the same corresponding impact on price). |
| DV01 | DV01, or the Dollar Value of one basis point, measures the interest rate risk of a bond or portfolio of bonds by estimating the price change in dollar terms in response to a change in yield by a single basis point (one percent comprising 100 basis points). |
| Initial Margin (% of notional) | The original margin was posted at the advent of the instruments. |
| Initial Margin Collateral Type | The nature of the collateral posted (cash, securities, property, other) at the inception of the account. |
| Variation Margin (% age of notional) | The variation percentage of notional margin. |
| Counterparty Credit Rating | Please disclose the Nationally Recognised Statistical Ratings Organisation (NRSRO) rating for the counterparty or other rating if applicable. |
| External Cash Flow Reference | Please provide a unique identification code to map between the cash flows specified and the corresponding details in the appropriate asset-listing tab. |
| Expected Positive Exposure (% of notional) | The potential estimated exposure at origination of position. |
| Expected Negative Exposure (% of Notional) | The potential estimated exposure at origination of position. |

B.1.12 Assets Disposed During the Year

21. Assets sold, matured or redeemed from the registrant during the current year. All disposals should be included, such as transfers between group companies. The type of disposal may be indicated in the adjacent columns.

| Field | Description |
|-------------------------------------|--|
| Asset ID: CUSIP/ISIN/Internal ID | This is an asset-level unique identification code. |
| Asset name | Name of the debt instrument in question. This may reflect details of the issuing entity (borrower) and unique elements distinguishing the issue from other debt instruments issued by the same borrower. |
| Asset Type | This should reflect the asset type category used in the modelling process. |
| Purchase Date | This is the date of purchase of the debt instrument. |
| Disposal Date | Please disclose the date of the asset sale transaction/liquidation. |
| Book Value at Disposal | The value on balance sheet at time of disposition (Net). |
| Expected Disposal Value | The value projected to be realised through disposition (Net). |
| Actual Disposal Value | The amount received after disposition (Net). |

B.1.13 Affiliated Assets

22. Prior approval is required for all assets having counterparty credit exposure to an affiliate, related party or connected party. Insurers shall look through the underlying counterparties to determine whether they are affiliates, related parties, or connected parties.
23. 'Affiliated' means one company is affiliated with another company only if one of them is the subsidiary of the other or both are subsidiaries of the same company or the same person controls each of them.
24. 'Related party' means related party as defined under the respective insurer's accounting standards, namely the IFRS and GAAP that apply in Bermuda, Canada, the United Kingdom or the United States of America, or such other GAAP as the Authority may recognise.

25. ‘Connected party’ means a party associated in any other way other than those defined above, i.e., affiliated or related. This association could give rise to a conflict of interest in relation to the investment.

| Field | Description |
|--------------------------------------|---|
| Asset ID: CUSIP/ISIN/Internal ID | An asset-level unique identification code. |
| Counterparty | The named counterparty in transaction. |
| Exposure to affiliated assets (in %) | The total affiliated and related assets are a percentage of total assets. |

B.1.14 Modified Assets

26. Assets that have been acquired or restructured and the original terms of the investment modified are considered modified assets. Examples include debt or equity securities received during the restructuring of a company’s debt in bankruptcy or debt securities that have modified the original terms during a restructuring. The assets under this classification should include and clearly disclose assets modified to include payment-in-kind features.

| Field | Description |
|----------------------------------|--|
| Asset ID: CUSIP/ISIN/Internal ID | An asset-level unique identification code. |
| Counterparty | The named counterparty in transaction. |

B.1.15 Investment and Hedging Costs

27. Please specify for each asset type the total costs incurred by a registrant to manage investments and hedging activities of the insurer, including asset management fees, brokerage fees and other investment-related costs.

C. Lapse, Liquidity and SBA Template – Other Tabs

28. This section provides instructions on completing the LLSBA template on a column-by-column basis for the tabs relating to using the SBA. If separate liability sub-portfolios exist, please consider each sub-portfolio individually when updating these forms.

C.1.1 SBA Curve Input

29. Please provide the following information as used in the insurer's SBA calculations.

| Field | Description |
|---|---|
| Ultimate Forward Rate (UFR) | Enter the UFR for extending the risk-free rate and the maximum number of years the curve is extended. |
| Risk-Free Rate | <p>The risk-free curve used in the SBA calculations shall be either:</p> <ul style="list-style-type: none"> • The risk-free curve published or directed by the BMA or • The relevant risk-free market curve with no adjustments <p>The relevant risk-free rates referred to in the second bullet shall correspond either to the government bond rates or the swap rates, depending on the currency and the generally accepted market practices regarding risk-free benchmark rates for each such currency. (For more details, refer to Section E9 of the 2024 Instructions Handbook.)</p> |
| Reference Rate Curves for Other Instruments | <p>Enter all reference curves used in either the valuation of assets or the determination of asset cash flow projections. Curves used for asset valuation should include those used to calculate the stated valuation spread for the respective asset if this differs from the Risk-Free Rate curve already specified. Curves used to determine projected cash flows should reflect the reference curves used to determine floating rate coupon values. This should include interest rate curves, inflation curves, and LPI curves.</p> <p>Where interest rate curves are provided, it should be clearly stated whether the curve is a spot curve or a forward curve.</p> <p>Where asset cash flows are linked to different LPI compositions, a curve should be provided for each composition required.</p> |

C.1.2 Cash Flows - Asset-related

30. All insurers should complete this tab, whether they use the SBA, standard approach or a combination of both.
31. Please provide a breakdown of the investment-related costs that the insurer incurs. This should include asset management fees, brokerage fees and other investment-related costs, whether attributable to individual assets or not.

| Field | Description |
|--------------------------------|--|
| Service Provider | Please specify the entity's name that provides an asset-related service to the insurer. |
| Recipient of Service | Please specify the recipient of the service. For example, the recipient would generally be the insurer directly but the holding company may pass down costs. |
| Relationship | Please specify the reporting firm's relationship with the service provider. Please select from the drop-down list available. |
| Type of Service Offered | Please select the type of service provided from the drop-down list. |
| Total Amount Paid Current Year | Please provide the current year costs the insurer paid to the service provider for this service. |

| | |
|------------------------------|---|
| Total Amount Paid Prior Year | Please provide the actual costs for this service for the prior year, if applicable. |
|------------------------------|---|

C.1.3 SBA Default and Downgrade Cost

32. Please complete this tab to specify the default and downgrade tables applicable to each asset type in the SBA calculation. Also, please use rows nine to 34 to indicate the SBA asset type in column B and provide the corresponding default and downgrade table in column C.
33. The default and downgrade tables provided by the BMA are shown in rows 35 downwards for:
- 1st Lien bank loans
 - Other bank loans
 - Secured bonds
 - Senior unsecured bonds
 - Subordinated bonds
34. Additional tables may be added under these tables if the BMA approves.
35. The application for default and downgrade costs shall be included as part of the asset application, including all the supporting analyses, which should demonstrate the insurer's internal view of default and downgrade costs. For example, the application for structured assets and mortgage loans shall include the default and downgrade costs for structured assets and mortgage loans, respectively.
36. The default and downgrade tables provide the expected loss from default and cost of downgrade for different BSCR ratings (columns C to J) for tenors between one and 20 years. For tenors beyond 20 years, the 20-year value should be used.

C.1.4 SBA Spread and Reinvestment

37. Please provide details of the assumptions underlying the reinvestment portfolio used in the SBA projections. This section assumes that the reinvestment strategy is static throughout the SBA projection for each SBA sub-portfolio. If the reinvestment strategy varies over time, please add commentary in the spreadsheet and the attached documentation.

| Field | Description |
|--------------------------|--|
| SBA Sub-portfolio Number | If separate liability sub-portfolios exist, then the sub-portfolio number reflects the identification number of each respective sub-portfolio. Assets backing each sub-portfolio should be non-fungible and individually distinguishable using the SBA sub-portfolio number. |
| BMA Asset Classification | This field should reflect the asset class for each asset as determined to be appropriate with reference to the list of BMA Asset Classes. Please select from the drop-down menu. |
| Asset Type | This should reflect the asset type category used in the modelling process. Please select from the drop-down menu. |
| Currency | The base currency of the asset. Please select from the drop-down menu. |
| Redemption Type | Please specify the nature of the expected redemption payment. Select one of the following the drop-down menu items available: <ul style="list-style-type: none"> • 100% redemption at maturity • No redemption (assets held in perpetuity) |

| | |
|---|--|
| | <ul style="list-style-type: none"> Regular partial redemption over time, fully redeemed by maturity such as an amortising capital repayment Other |
| Coupon Type | Please specify the nature of the coupon payment (i.e., either fixed, floating or other), where other could reflect, for example, index linked. Please select from the drop-down menu. |
| Number of Coupon Payments Per Year | Please state the Number of Coupon Payments Per Year. Please select from the drop-down menu. |
| Floating Margin (in bps) | Please specify the margin over the floating rate index that should be applied. In the case that the coupon is determined with reference to a floating rate curve, the Floating Margin would be the margin that should be added to the projected forward rate to determine the projected coupon rate. |
| Floating Reference Index | Please specify the name or reference index of the curve that should be used to determine floating coupon rates for the asset in question. The Floating Reference Index should correspond to a curve specified in the <SBA_CurveInput> tab. See C.1.1 |
| Risk-Free Curve Used for Spread Determination | This field should reflect the risk-free curve used to determine the (valuation) spread. The entry into this field should correspond to a curve entry in the <SBA_CurveInput> tab. See C.1.1 |
| Reinvestment Split % Assumption (This should sum to 100% for each Asset Type within an Asset Classification) | Please indicate the intended/modelled reinvestment split between target asset classes. |
| Issue BSCR Rating | The BMA BSCR rating is equivalent to the lowest rating of the instrument by an approved Nationally Recognised Statistical Rating Organisation (NRSRO) for the debt issue in question. |
| Asset Duration (in Years) | Please provide the modified duration. Modified duration is a measurement, in years, that assesses a bond's interest-rate sensitivity. If effective duration is used (as opposed to modified duration) due to model limitations, please note this in the workbook. |
| Short-term Gross Spread (%) | <p>Spread assumptions should reflect a distinction between short-term spreads and expected long-term spreads. This field should reflect short-term spread assumptions consistent with those used at the valuation date. The maximum tenor to which the short-term spreads apply should be specified.</p> <p>To the extent that multiple spread tenors are assumed in the calculation, these should be specified explicitly, along with the corresponding tenor to which it applies in the accompanying memo.</p> |
| Long-term Gross Spread (%) | This field should reflect the spread assumption about long-term spreads. The minimum tenor that the specified spread applies to should also be identified. If only two spread tenor buckets are assumed, the minimum long-term tenor should correspond to the maximum short-term tenor + the specified short-term to long-term transition period. |
| Short-term Spread to Long-term Spread Transition Period (in months) | Please specify the assumed month differential between the short term and long-term time points to which the corresponding spread assumptions apply. |

C.1.5 SBA Liability Cash Flows

38. Please provide the cash flow profile for each SBA sub-portfolio (blocks of business) used in the SBA calculations. Cash flows should be provided vertically, so each new sub-portfolio will start below the previous one - see cells A13 and A867, for an example. Copy and paste additional tables as required.

39. Fungible blocks, where BMA fungibility approval has been granted, can be provided as one sub-portfolio.

| Field | Description |
|--|---|
| Cash Flow Inflow | Please provide a simple description or formula of the inflows assumed in the calculation of the Best Estimate Liability (BEL) (e.g., premiums, fees) |
| Cash Flow Outflow | Please provide a simple description or formula of the outflows assumed in the calculation of the BEL (e.g., claims, expenses) |
| Cash Flow Inflow Amount | For each scenario and each sub-portfolio, please provide the liability cash flow inflow for each time period |
| Cash Flow Outflow Amount | For each scenario and each sub-portfolio, please provide the liability cash flow outflow for each time period. Outflows should be shown as a positive number |
| Total SBA Model Liability Cash Flow Amount | Cash flow Inflow Amount minus Cash flow Outflow Amount |

C.1.6 SBA Analysis of Change

40. An Analysis of Change is an important control to help insurers validate their key metrics and understand the drivers of the movement in a metric from one time period to the next.
41. In the case of the SBA, the Authority requires insurers to provide a detailed analysis of change for a) the SBA BEL for the biting scenario and b) the implied SBA Spread relative to the underlying Risk-Free Rate.
42. Commentary capturing the key reasons for any movement should be provided. For example, if there have been several model changes, the commentary should articulate which particular changes contributed materially to the observed impact for that step.
43. An analysis of change should be performed individually for each sub-portfolio representing a material exposure to the insurer, up to a maximum of ten.
44. 'Material exposure' should be determined by the insurer in an appropriate manner that is documented. This recognises that using the BEL to determine the 'largest' sub-portfolios may not always be suitable. For example, a general account product with a low BEL but a high sum assured could be considered material within the insurer's risk management framework. Hence, it should be included in this example even if it has a lower BEL than other products.
45. If there are more than ten sub-portfolios, or if more than one sub-portfolio is demonstrably small, sub-portfolios may be combined in the 'Aggregate of all other small portfolios' row. The justification should be documented.
46. The Authority recognises that the steps below may differ from the insurer's internal process. If this is the case, the insurer should state how their steps differ and comment on how this impacts the allocation of movement in the accompanying documentation.
47. The Authority expects most of the analysis to be performed using model runs rather than estimates. If an estimate is used for any of the steps, the insurer should describe how the calculation was made and justify why this is appropriate in the accompanying documentation.
48. An insurer's processes are expected to automatically produce an analysis of change for each sub-portfolio by the required steps outlined in the table below. However, steps may be simplified for less material sub-portfolios as long as the analysis remains appropriate and information is not lost.
49. Similarly, analyses of change inevitably require some judgment, particularly in the 'Updated Risk-Free Rate' step. It would not be practical to provide an exhaustive list of instructions on adjusting them for every scenario that might arise. While the instructions in the table below include information on how each step should be considered, it is recognised that judgment may be required.
50. The overarching expectation is that the overall analysis of the drivers of the change in BEL and SBA Spread will provide an 'allocation of impacts' that can be articulated and justified within the insurer's governance system and other stakeholders.
51. An analysis of change would typically be an annual exercise. Still, for the first year of implementing the SBA, the insurer should discuss with their supervisor whether an interim analysis of change would

be appropriate. For example, if Q2 figures were reported to the BMA using the SBA, then a Q2 to Q4 analysis would normally be required.

52. For year-end 2024 reporting, the BMA acknowledges that insurers may have to build the necessary tools and processes to complete this tab as expected, so a best-efforts approach is encouraged.

Completion of this tab

To avoid doubt, BEL excludes the LapC adjustment.

| SBA Analysis of Change | |
|-------------------------|---|
| Field | Description |
| Description of Products | For each sub-portfolio, describe the main product(s). |
| BEL - Base Scenario | State the base closing BEL for each sub-portfolio. |
| BEL - Scenario | State the closing BEL for each sub-portfolio's eight interest rate scenarios. |
| BEL (after AOC step) | Calculated BEL having made all the changes up to and including each analysis of change (AOC) Step, as defined below. |
| Implied SBA Spread | Implied SBA Spread, relative to the firm's risk-free rate set out in C1.1, for each AOC Step. |
| Step | Description |
| Prior Period (start) | On the biting scenario, the prior period's closing BEL would normally be as reported at the end of the Prior Period. |
| Model Changes | BEL as valued at the prior period (start) that includes: <ul style="list-style-type: none"> • Changes in the methodology that impact the BEL calculation • Asset and liability methodology changes • Assumption changes in this step • Itemisation of the impact of any material assumption changes (5% or greater of start of period BEL) in the 'Other' section below. |
| Unwind | At this stage: The asset and liability portfolios should be rolled forward based on the following information: <ul style="list-style-type: none"> • The valuation/calculation date should be updated to reflect the end of period date • All curves used within the model (both interest rate and inflation rate curves) should be rolled forward to reflect the change in date • Spot interest rate curves need to be recalculated as at the end of period date using the forward rates implied by the start of period spot curves • Discount rates should be calculated using the appropriate rolled-forward spot interest rate curves • Inflation curves should be rolled forward by rebasing projected inflation at the start of the period projected inflation index. This implies no changes to inflation expectations • There should be no change to the asset and liability cash flows other than that the cash flows that are projected to occur over the year to which the AOC applies are fulfilled • Cash balances should reflect the net impact of the asset and liability cash flows dropped due to the date update • Asset market values should be rolled forward to reflect the change in promised cash flows and the impact of rolling cash flow indices (interest rate reference curves and inflation index curves) forward |

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| | <ul style="list-style-type: none"> At this stage there should be no change to the IRR calculated for each asset at the end of period date versus the start of period date. This should be demonstrated by calculating the asset portfolio IRR before and after the above-stated rolled-forward updates <p>The asset and liability portfolios should be updated to reflect the unwind of assumptions applicable over the period that the AOC applies based on the following information:</p> <ul style="list-style-type: none"> Inflation indices used to project inflation curves should be updated to reflect experienced inflation over the year Cash balances should be adjusted to reflect the actual net impact of income earned less claims paid over the year Asset cash flow probability of default and cost of downgrade risk adjustments should be updated to reflect an alignment corresponding to the end of period factors. This reflects an unwind of the expected probability of default and downgrade experience for the lifetime of each asset |
| Updated Risk-Free Rate | <p>In this step, all interest rate curves should be updated, including:</p> <ul style="list-style-type: none"> The liability discount curve (including those used for commutation calculations) Asset-specific valuation risk-free curves used to calculate asset spreads Asset cash flow reference curves At this step, asset market values should be updated to reflect updates to the associated asset valuation risk-free curves and cash flow-reference curves |
| Update Starting Portfolio Asset Spreads | <p>In this step:</p> <ul style="list-style-type: none"> The spreads on each asset should be updated to the end of period spreads for the respective asset For assets for which end of period spreads are unavailable or cannot be obtained (for example, for assets that were sold or matured during the period), start of period spreads should be updated to the end of period using an appropriate index that should be described The index should be appropriate to the credit rating, asset sector and duration of each asset spread to be updated Asset market values should be updated to reflect the updated asset spreads (in addition to all other updates implemented thus far in the AOC) |
| Update Asset Portfolio | <p>At this step:</p> <ul style="list-style-type: none"> The asset portfolio should be updated to reflect the end of period asset portfolio market values and cash flows used to back the liability portfolio or block at the start of period The end of period asset portfolio should therefore reflect portfolio rebalancing impacts and the impact of the AOC steps effected thus far, unwind, curve updates, etc Assets onboarded as part of new business activities should be excluded Approximations can be used to the extent that splitting out new business impacts from legacy rebalancing impacts proves difficult to isolate—these should be stated Asset market values should be updated to reflect actual end of period asset market values. Cash flows should reflect end of period cash flows, excluding updates to assumptions underpinning the cash flow projections, such as changes to assumptions underpinning pre-payment dates For assets held throughout the period, for which the assumptions underpinning those cash flows have not changed, the updated market value should be consistent with the theoretical market value calculated as a result of the AOC updates thus far, allowing for changes in holding sizes |
| Update to Assumed Target Asset Allocation | <p>This step should reflect updates to the reinvestment target allocation assumptions. These assumptions impact the projected asset portfolios in the SBA calculation.</p> |

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| Update to Assumed Reinvestment Spreads | This step allows for updates to the reinvestment spread assumptions. |
| Variation of Liabilities Cash Flows for In-force | <p>At this step:</p> <ul style="list-style-type: none"> • The liability portfolio should be updated to reflect the actual end of period liability portfolio profile • This should reflect the end of period liability model points (to the extent that model points are used as opposed to granular policy level modelling) • This step reflects the impact of changes and differences in the start of period projected liability data profile versus the actual end of period liability data profile • This step should not reflect changes in liability-related assumptions such as lapse and mortality rate assumptions |
| New Business | <p>This step should reflect:</p> <ul style="list-style-type: none"> • The liability portfolio should be updated to reflect the new business liabilities onboarded during the AOC period • The impact of changes to the asset portfolio as a result of new business • The asset portfolio should, therefore, include updates to reflect the portion of the end of period asset portfolio that is attributable to new business liabilities • Where obfuscations arise due to intra-period onboarding and subsequent portfolio-level rebalancing, assumptions and approximations made in the apportionment of the End of Period portfolio between start of period and new business assets should be stated clearly • For example, where it is challenging to attribute portfolio-level rebalancing between the start of period portfolio and new business assets, a proportional apportionment could be applied |
| Change in Biting Scenario from Prior Period | This step should reflect the update to the biting scenario applicable at the end of period. The end of period biting scenario may be consistent with the start of period biting scenario. |
| Other (a)-(e) | <p>These sections are available for insurers to use to demonstrate the impact of changes that have not been captured in previous steps.</p> <p>Please explicitly itemise any material changes, including assumption changes, that have not already been reflected in the other line. Material changes are defined as those in excess of 5% of the start of period BEL.</p> <p>Possible material changes include:</p> <p>Asset assumptions Default assumptions Updates to assumptions underpinning asset cash flow projections</p> <p>Liability assumptions: Lapse Mortality/longevity Expense</p> <p>Please itemise any other changes that help explain the difference between the 'Change in Biting Scenario' and the 'Closing BEL'.</p> |
| Closing BEL | The final step should equal the closing reported assets and the BEL for the current period biting scenario. |

C.1.7 Lapse Profile

53. All insurers should complete this tab, whether they use the standard approach, SBA, or a combination of both.
54. The lapse profile tab requires the insurer to provide a detailed breakdown of the “Mass Lapse” component of the Lapse shock across its portfolio of products according to the information provided in the insurer’s BSCR filing.
55. Specifically, this should use the mass lapse stress as defined in Schedule VIIA of the 2024 year-end long-term BSCR Models.
56. For each BSCR lapse category, please provide the information outlined in the table below.

| Field | Description |
|---|---|
| 3 x Base Lapse Rate (in %) | Please provide a 3x base lapse rate (in %) for each product. Where the lapse rate differs by product or term, for example, a weighted average lapse rate should be provided, and supporting information should be provided in the documentation. |
| SBA BEL (If applicable) | Aggregate SBA BEL - the total of this column should match the total SBA BEL. |
| Standard Approach BEL | Aggregate standard approach BEL - the total of this column should match the total standard approach BEL. |
| Account Value | The aggregate account value excludes any surrender charges reported under local GAAPs. |
| Cash Surrender Value | The aggregate amount that would be paid out if a policy was surrendered immediately. This should include the impact of surrender charges and Market Value Adjustments (MVAs) where applicable. |
| Required Capital without Management Actions | Aggregate mass lapse required capital, pre-diversification, without Management Actions. |
| Required Capital with Management Actions | Aggregate mass lapse required capital, pre-diversification, with management actions. |
| Prior Year Lapse/Surrender Payments | Please provide a breakdown of actual surrender payments for the year prior to the filing year. The methodology for deriving this field (for example, inferred from modelling data versus obtained from the insurer’s accounting systems) should be documented, including any judgements made. |
| Current Year Lapse/Surrender Payments | Please provide a breakdown of actual surrender payments for the current year ending at the filing date. |
| Time Restraint - Normal | Please provide the average time between the request by a policyholder and the settlement under the normal course of business. The more quickly policyholders are able to access their funds, the more likely it is that insurers may have to engage in disruptive fire sales of assets to make the payments promised. |
| Time Restraint - Stressed | Please provide the average time between a policyholder's request and the settlement that the insurer believes it can reasonably extend if a mass lapse event occurs in practice. |

C.1.8 Liquidity Projections

57. Please provide a granular breakdown of the cash flows underpinning the liquidity projections. This should be consistent with published liquidity stress testing, as disclosed, for example, in the CISSA or GSSA. All insurers should complete this tab.
58. For each cash flow, where relevant, provide the following information:
- Prior Year Actual Cash Flows – a breakdown of actual cash flows in the current year ending at the filing date. For example, for a 31 December 2024 filing date, the Prior Year Actual for 30 days would reflect the actual cash flows in the 30 days from 1 January 2024
 - Projected Cash Flows – the base cash flows for the following time period as consistent with the insurer's internal plans and liquidity testing
 - Projected Stressed Cash Flows – The test should be an internally defined moderate-to-severe stress
59. The 'Projected – Baseline' cash flows should reflect the best-estimate cash flows for the following year and only include known commitments. The 'Projected – Stressed' cash flows will, therefore, show the impact on the insurer's expected cashflows under stress prior to any management actions.
60. The insurer should provide a separate accompanying memo containing a projection including management actions and distinguish between those actions it can ordinarily take (e.g. reduce dividends, use contingency funding facilities already available as at the filing date) from actions that are not currently in place.
61. Outflows should be shown as a positive figure, i.e., an expense payment should be shown as a positive number.
62. The Authority expects there may be some variation in how projected cash flows are collated within different insurers, hence, there is some flexibility on how to complete this in line with internal processes.
63. A list of common cash flow types is provided, and additional cash flows that cannot be clearly mapped can be allocated to 'Other Flows'. The insurer should document how they have allocated each cash flow to the available selection.
64. Cash flows should be shown in appropriate detail to understand the drivers of liquidity. For example, it is not sufficient to simply show settlements for reinsurance transactions: the various elements of the contractual settlement should be split out into the relevant inflows and outflows.

| | Description |
|--------------------------|---|
| Operating Inflows | The underlying income generated by the insurer's core business activities. It includes premiums, deposits, fees and other charges, as well as income from reinsurance recoverables. |
| Investing Inflows | The income generated from the insurer's investment activities, both in the ongoing operation of the business and as assumed after a stress event. |
| Financing Inflows | The non-operating and non-investment cash flows the insurer can access to support its business. A number of financing options are provided, depending on the facilities the insurer has available. See paragraph 63 for more details. |
| Gross Inflows | This should equal the sum of operating, investing and financing inflows. |

| Description |
|-------------|
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| | |
|---------------------------|---|
| Operating Outflows | The underlying outflow is generated by the insurer's core business activities. It includes benefit payments, commission payments, payments to reinsurers and the expense of running the business. |
| Investing Outflows | The costs of the insurer's investment activities, including any margin payments, collateral pledges, and assumed asset purchases, where relevant. |
| Financing Outflows | The insurer's obligations to other stakeholders. These may include any capital contributions to subsidiaries or dividend payments to a parent company or shareholder, as well as the cost of servicing existing debt or arranging new sources of credit. See paragraph 64 for more details. |
| Gross Outflows | This should equal the sum of operating, investing and financing outflows. |

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| Cash Flow Ratio | This should equal Gross Outflows/Gross Inflows. |
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65. The table below shows financing inflows separated by type of financing. Where more than one category is used, the supporting memo should provide details of the different underlying sources that have been aggregated.

| <u>Financing Inflows</u> | Definition |
|--|--|
| Capital Contributions | Funds that shareholders or owners invest in the company, typically in exchange for equity or ownership stakes. |
| Commitments | Obligations or promises to provide funds that the insurer can contractually rely on in each timeframe or scenario. |
| Dividends from Subsidiaries | Payments made by subsidiary companies to the parent company represent a share of the subsidiary's profits. |
| Debt Issuance/Refinancing | Funds raised by issuing debt instruments such as bonds and loans or restructuring existing debt to improve terms or extend maturity. |
| Guaranteed Investment Contracts (GICs)/Funding Agreements | Investment products offered by insurance companies that guarantee a fixed rate of return over a specified period. |
| Federal Home Loan Bank (FHLB) | Advances or loans provided by the FHLB to member institutions, typically to support housing finance and community development. |
| Repo/Securities Lending | Short-term borrowing arrangements where securities are sold with an agreement to repurchase them at a later date; they are often used to manage liquidity. |
| Credit Facilities (Incl. Contingency Funding Facilities) | Pre-arranged lines of credit that an insurer can draw upon as needed, including facilities set up for emergency or contingency funding. |
| Intercompany Loans | Loans made between different entities within the same corporate group are often used to manage cash flow and financing needs within the group. |
| Commercial Paper | A short-term, unsecured promissory note that is issued by a company to raise funds for working capital or other immediate needs. |
| Other Flows | This category includes any other types of financing inflows that do not fall into the specific categories listed above. |

66. The table below shows Financing Outflows separated by type of financing. Where more than one category is used, the supporting memo should provide details of the different underlying beneficiaries that have been aggregated.

| <u>Financing Outflows</u> | Definition |
|--|--|
| Capital Contributions to Subsidiaries | Funds that the company invests in its subsidiary companies, typically to support their operations or growth. |
| Dividends to Parent/Shareholder | Payments made by the insurer to its parent or shareholders, representing a share of the company's profits. |
| Debt Maturities/Debt Servicing | Repayment of principal and interest on the company's debt as it becomes due. |

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| GICs Benefits/Maturities | Payments to policyholders or beneficiaries under Guaranteed Investment Contracts as they mature. |
| FHLB - Repo/Securities Lending | The repayment of funds borrowed through repurchase agreements or securities lending arrangements. |
| Credit Facilities (Including Contingency Funding Facilities) | Repayments or servicing costs associated with lines of credit that the insurer has drawn upon, including those set up for emergency or contingency funding. |
| Intercompany Loans | The repayments of loans between different entities within the same corporate group. |
| Other Flows | Any other types of financing outflows that do not fall into the specific categories listed above. |