

# AM Best's Stress Liquidity Ratio for US Life Insurers

October 13, 2017



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## Outline

### A. Balance Sheet Strength

The following criteria procedure should be read in conjunction with *Best's Credit Rating Methodology (BCRM)* and all other related BCRM-associated criteria procedures. The BCRM provides a comprehensive explanation of AM Best's rating process.

## A. Balance Sheet Strength

### Liquidity

AM Best believes that the measurement of a company's liquidity is an important factor in determining an insurer's balance sheet strength. Strong liquidity management should enable the daily operations of an insurer to run smoothly and should substantially lessen the potential need to liquidate assets prematurely. Management may choose to reduce liquidity risk by restructuring its investment portfolio; reducing any asset/liability mismatch; or de-emphasizing the sale of a particular product line.

Fundamentally, the liquidity profile of a company can be assessed by reviewing the nature and duration of its assets and liabilities, which in turn drives the inherent nature of the liquidity risk. A review of liquidity resources (sources and uses of cash) at the holding company is vital. Liquidity analysis is already part of AM Best's rating process since insurance entities are often the primary sources for debt servicing at the holding company. Some of the measures AM Best may use to assess liquidity follow:

- **Current Liquidity:** Measures the proportion of liabilities (excluding asset valuation reserve [AVR], conditional reserves, and separate account liabilities) covered by cash and unaffiliated holdings, excluding mortgages and real estate
- **Quick Liquidity:** Measures the proportion of liabilities (excluding AVR, conditional reserves and separate account liabilities) covered by cash and investments that can be converted quickly to cash
- **Non-Investment Grade Bonds to Capital:** The sum of NAIC Class 3, 4, 5 and 6 bonds as a percentage of capital and surplus funds
- **Delinquent and Foreclosed Mortgages to Capital:** The sum of long-term mortgages upon which interest is overdue more than three months, long-term mortgages in process of foreclosure, and real estate owned via foreclosure as a percentage of capital and surplus funds (including AVR)
- **Affiliated Investments to Capital:** Affiliated investments (including home office property) as a percentage of capital and surplus funds (including AVR)
- **Mortgages/Credit Loans/Real Estate to Invested Assets:** Mortgage loans, credit tenant loans and real estate as a percentage of capital and surplus funds (including AVR)



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## **Liquidity Management and Life Insurers**

AM Best views liquidity management as a continuing challenge for life insurers and particularly pronounced for companies with interest-sensitive products. Several types of spread-managed or interest-sensitive products offered in the marketplace expose a company to liquidity risk as a result of a changing interest-rate environment, credit and default risks, and the embedded optionality in the products.

On the asset side, the issues that create liquidity risk come from the ability to sell assets quickly without incurring unacceptable losses. Market movements such as sharp interest-rate changes or general market corrections can trigger such scenarios. A company's appetite for higher yield from investments such as mortgage loans and certain structured securities also can raise liquidity risk.

While reviewing day-to-day and ongoing cash management is important, AM Best believes that it is the stress liquidity risk that can jeopardize a company's financial viability and could lead to insolvency. Life insurers with significant exposure to single-premium deferred annuities, putable funding agreements or guaranteed investment contracts (GICs) are subject to stress liquidity events. For this reason, AM Best monitors a company's issuance of institutional spread-based products relative to its total general-account reserves using AM Best's Stress Liquidity Ratio (AMBSLR).

The AMBSLR captures a conservative, statutory view of a company's overall liquidity. Therefore, AM Best has refrained from incorporating the other sources and uses of liquidity of the holding company in this ratio, and—for purposes of this ratio—the asset and liability stress analysis is performed at a rating unit level.

## **AM Best's Stress Liquidity Ratio**

AMBSLR is one of AM Best's tools to review a life insurer's liquidity. Using statutory data, the AMBSLR quantitatively measures a company's short-term (30 days) and longer-term (six to 12 months) cash needs positions under stressed scenarios. The ratio allows for conservative, standardized comparisons to be calculated and determines whether a company's calculated liquidity is within the range of its peers relative to its size and type of business.

Due to their greater potential liquidity needs, AM Best's AMBSLR analysis has focused on companies with a preponderance of interest-sensitive liabilities, i.e., annuities. AM Best recognizes the shortcomings of statutory reporting in this analysis and views the liquidity ratio only as a tool, not the sole predictor of future financial performance. The AMBSLR is not intended as a substitute for a comprehensive review of an organization's liquidity.

While there are different levels of liquidity management, the AMBSLR focuses on a life insurer's three major cash sources:

1. the portfolio's level of cash and short-term investments;
2. the portfolio's level of readily saleable securities that can be converted quickly to cash; and
3. the policyholder obligations expected to be readily liquidated under stress scenarios.

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## Functionality of the Ratio

The AMBSLR incorporates liquidity factors and exposures covering both institutional and retail products, taking into account their unique, embedded risk characteristics. Generally, when the resulting ratio is greater than 100%, a higher comfort level exists that the company's exposure to liquidity risk is acceptable. When the resulting ratio is less than 100%, a more detailed analysis will need to be performed to understand the driving factors and the potential impact on the balance sheet strength assessment.

The process of determining the liquidation value of assets and liabilities involves giving a "haircut" to the book values or fair values of assets and liabilities, which are obtained from the publicly available statutory annual statement and the nonpublic annual AM Best Supplemental Rating Questionnaire (SRQ). Since the data are from a statutory perspective, most assets in the ratio are generally valued at amortized cost. Exceptions such as common stock are reported at market value. The rationale for developing and applying a liquidity haircut is to estimate potential cash available to fund cash demands during short- and longer-term scenarios. In addition, under the scenario testing for this ratio, it is assumed that no new business is sold.

The short-term scenario is indicative of a stressed situation when a company encounters a severe and unexpected liquidity event resulting in withdrawals and surrenders within a 30-day time frame. The longer-term scenario measures stressed liquidity over a period as long as 12 months. While higher asset credits are given for the longer-term scenario, significantly higher liability needs arise, producing lower liquidity ratios than under the short-term scenario. AM Best will evaluate each of these two scenarios and give more weight in its analysis to the scenario that presents potentially greater liquidity risk.

The following exhibits, **A.1** and **A.2**, represent the baseline asset and liability factors present in the ratio. Adjustments may be made to the ratio based on additional information that becomes available to the analyst.

## AM Best's Stress Liquidity Ratio for US Life Insurers

### Exhibit A.1: Asset Factors

	Short-term (30 days)	Longer-term (6-12 Months)
Cash	100%	100%
Cash Equivalents	100	100
U.S. Government Securities	100	100
Investment-Grade Corporate Bonds Public excl. Affiliates	75	90
Investment-Grade Corporate Bonds Private excl. Affiliates	45	65
Class 3 Category Public excl. Affiliates	0	20
Class 3 Category Private excl. Affiliates	0	10
Public Pass-Through	90	95
Private Pass-Through	0	70
CMO:		
VADM, PAC, TAC	80	90
Sequentials	70	80
Z Tranches	0	15
Other	0	0
Residential Mortgage-Backed Securities	40	50
Commercial Mortgage-Backed Securities	70	80
Other Loan-Backed and Structured Securities	60	70
Unaffiliated Common Stock Public incl. Mutual Funds	70	70
Investment-Grade Unaffiliated Preferred Stock	60	70
Mortgage Loans in Good Standing:		
Residential	0	10
Farm	0	10
Commercial	0	10
Reinsurance:		
Amounts Recoverable From Reinsurers	10	50
Other Amounts Receivable Under Reinsurance Contracts	10	50

## AM Best's Stress Liquidity Ratio for US Life Insurers

### Exhibit A.2: Liability Factors

	Short-term (30 Days)	Longer-term (6-12 months)
Life Policy Claims	100%	100%
Net Ordinary Life Reserves	15	40
<b>Total</b> (Individual and Group, Accident and Health [A&H] Premium Stabilization Reserves)	30	50
Individual A&H Unearned Premium Reserves	10	50
Group A&H UPR	10	50
Credit UPR	5	25
Health Claim Reserves	15	100
General Account Annuities & Deposits (Excluding GICs and FAS)	50	75
GICs & Funding Agreements	25	25
Additional Charge for Putable GICs & Funding Agreements	25	25
Reinsurance Payable	100	100
Policyholders' Dividends & Coupons - Due & Unpaid	100	100
Experience Rating Refunds Payable	8	100

By their nature, cash on hand, including cash equivalents and US government-issued securities, receive full credit in both the short- and longer-term scenarios, as these assets are considered highly liquid. Based on their higher credit quality, unaffiliated, investment-grade, public corporate bonds receive a substantial level of credit in the short- and longer-term scenarios. Private investment-grade bonds receive lower levels of liquidity credit. AM Best's ratio gives a range of credit, from little (in the longer scenario) to none (in the short scenario) for NAIC class 3 issues because of potential credit- or market-driven factors that may hinder the liquidity of non-investment-grade securities.

Since mortgage-backed securities (MBS) and collateralized mortgage obligations (CMO) have diverse investment tranches and react differently under various interest-rate scenarios, AM Best differentiates among them for purposes of the liquidity ratio.

Agency and non-agency pass-through MBS, whether public or private, receive significant credit in the longer-term scenario but no credit for private issues in the short-term scenario. Residential mortgage-backed securities receive short-term and longer term credits of 40% and 50%, respectively. Commercial MBS receive short-term and longer-term credits of 70% and 80%, respectively. Other loan-backed and structured securities include home equity lines of credit, student loans, collateralized debt obligations, credit card loans and auto loans. These assets receive short-term and longer-term credits of 60% and 70%, respectively. The more tightly structured CMO tranches—very accurately defined maturities (VADM), planned amortization classes (PAC) and targeted amortization classes



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(TAC)—receive 90% credit in the longer term scenario and 80% in the short-term scenario. Less-liquid CMO tranches receive varying degrees of credit from 80% to zero. Since the CMO distribution is derived from the SRQ, if no data are received, default industry levels will be used for individual CMO classes.

Although unaffiliated, publicly traded common stocks are generally liquid and a company may be able to liquidate most of its equity portfolio to raise cash quickly, the potential still exists for marketplace shocks to occur accompanied by resulting declines in stock-market values. Therefore, AM Best's ratio conservatively gives 70% credit to unaffiliated, publicly traded common stocks (including mutual funds) in the short and longer term scenarios. Unaffiliated, investment-grade preferred stocks also are given 70% credit, but only in the longer scenario, as AM Best's short-term credit is 60%. No credit is given to below-investment-grade preferred stocks.

Residential, farm and commercial mortgage loans in good standing receive only 10% credit in the longer term scenario and zero credit in the short-term scenario, because they are not readily marketable assets. Finally, amounts recoverable from reinsurers and amounts receivable under reinsurance contracts are given 50% credit in the longer term and 10% credit in the short-term scenario.

Liquidity factors also are applied to the major liability items used in the AMBSLR. Various life and accident and health claims reserves, premium stabilization, unearned premium reserves, general account annuities reserves, and deposits are charged based on their liquidity and withdrawal characteristics. Because of their nature, general account annuities are considered to be subject to significant withdrawal risk, while life insurance policies are less likely to surrender, especially under an immediate scenario. Those annuities with market-value adjustments and/or significant surrender protection are given a higher degree of liquidity credit.



Published by A.M. Best Rating Services, Inc.

## METHODOLOGY

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**Best's Issuer Credit Rating (ICR):** an independent opinion of an entity's ability to meet its ongoing financial obligations and can be issued on either a long- or short-term basis.

**Best's Issue Credit Rating (IR):** an independent opinion of credit quality assigned to issues that gauges the ability to meet the terms of the obligation and can be issued on a long- or short-term basis (obligations with original maturities generally less than one year).

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Version 020116