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# **Best's** Methodology and Criteria

## Life Settlement Securitization



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# Life Settlement Securitization

## Outline

- A. Market Overview
- B. Rating Considerations
- C. The Assignment of a Rating

The following criteria procedure should be read in conjunction with *Best's Insurance-Linked Securities & Structures Methodology* (BILSM) and all other related BILSM-associated criteria procedures. The BILSM provides a comprehensive explanation of AM Best's rating process for insurance-linked securities and insurance-linked structures.

## A. Market Overview

A life settlement is an insurance policy sold by the owner – typically the insured or a trust – for an amount greater than the surrender value of the policy but lower than the face amount of the policy. The purchaser of the life settlement becomes the new owner and beneficiary of the life insurance policy. They are responsible for making future premium payments and collecting the death benefit of the insured. **Exhibit A.1** lists some of the reasons to sell an insurance policy.

### Exhibit A.1: Reasons to Sell an Insurance Policy

Premiums paid by the policyholder have become unaffordable, and the policy is in danger of lapsing

Estate-planning needs of the insured have changed significantly

Funds are needed for long-term health care

Beneficiary has changed because of death or divorce

Disposal of unneeded "key-man" insurance or other business-owned insurance

Fund new annuities, life insurance or investments

Satisfy the need for cash in a forced liquidation due to bankruptcy or financial difficulties

Liquidate policies donated to not-for-profits

Dispose of policies that no longer are needed or wanted for a variety of other reasons

The life settlement market is an outgrowth of the viatical market, in which policies of the terminally ill – normally those insureds expected to die within two years – are bought and sold. In the life settlement market, insureds generally are over 65 years (but mostly are in their 70s). The typical life expectancy of insureds in the life settlement market is currently about 11 to 12 years, indicating that the insureds in this market do not generally have catastrophic medical impairments. In addition, the



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average size of the insurance policies in the life settlement market is typically larger than that in the viatical market.

Life settlements typically are sold through licensed providers by insurance brokers and agents. The price paid by the providers for the life settlements generally depends on the life expectancies estimated by medical underwriters after evaluating the medical records of the insured, as well as policy-specific contract characteristics. The higher the medical impairment of an insured, the lower the life expectancy and, hence, the higher the price paid for the insurance policy.

Rated life settlement securitizations are rare due to: 1) the difficulty in acquiring the critical mass of life settlements necessary for statistically stable cash flows; 2) significant insurable interest issues that must be addressed; 3) high transaction costs inherent in the acquisition of life settlements that usually make securitization economically infeasible; and 4) the wide range of opinions on life expectancies of legacy portfolios and the divergence of actual results to expected results for such legacy portfolios.

The growth of life settlement securitization may depend on: increased clarity and standardization of the general methods for predicting life expectancies of insureds (including the public release of data on the performance of medical underwriters); the transparency of the pricing of life settlements and of the fees earned by the various intermediaries in the transactions; the extent to which the life settlement industry provides safeguards regarding the identities, health conditions and financial status of the insureds; effective industry regulatory oversight and self-policing; the continued refinement of rating agency standards for assessing the credit risks associated with such transactions; and the pace of the emergence of new initiatives supported by the life insurance industry to provide alternatives to the secondary market for life insurance policies. **Exhibits A.2** and **A.3** describe and illustrate the parties involved in typical life settlement securitization transactions.

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## Exhibit A.2: Parties Involved in Life Settlement Securitizations

**Issuer** – The issuer normally is a bankruptcy-remote entity established for the sole purpose of purchasing life settlements; issuing securities collateralized by life settlements; and holding other assets for the sole purpose of servicing the interests of the noteholders. The issuer's responsibility is outlined in the indenture of the transaction.

**Providers** – Providers are licensed entities that purchase insurance policies directly from sellers or licensed brokers or agents authorized to act for sellers. They are responsible for making sure that all transfer-related documentation and sale documentation packages conform to applicable state or federal statutes, laws, rules and regulations relating to consumer protection, as well as to insurance and life settlement practices and procedures. Providers present policies to the issuer pursuant to an origination agreement.

**Medical Underwriters** – Medical underwriters provide comprehensive reviews of medical records and mortality profiles on the insureds looking to sell their insurance policies. The mortality profile provided by the medical underwriters includes a summary of pertinent medical conditions as well as a determination of life expectancy. The issuer usually requires providers to engage the services of at least two independent medical underwriters to evaluate the life expectancies of the insureds.

**Adviser for Inconsistency** – This adviser performs "Inconsistency Checks" verifying that medical records are consistent with the original insurance applications. Medical underwriters sometimes can provide this service.

**Collateral Manager** – The collateral manager is responsible for choosing the policies that will be included in the transactions. This manager's specific responsibilities may include: confirming that the eligibility criteria for inclusion in a portfolio are satisfied; performing policy optimization to minimize premium payments and maximize death benefits; delivering the sales documentation package to the trustee; liquidating policies when necessary; determining which policies should lapse in the event of a liquidity crisis; and determining the amount of the reduction in death benefits in order to reduce premium payments in a liquidity crisis.

**Servicer/Tracking Agent** – Some of the responsibilities of the servicer may include: contacting the insureds or their representatives to verify the current life/death status of the insureds; further optimizing premiums when necessary; maintaining correspondence with carriers to monitor any changes to the insurance policies; facilitating the collection of death benefits upon the death of insureds by acquiring copies of death certificates (and sometimes, filing the death claim with the insurance company); and providing reports to the issuer and/or collateral manager regarding deaths and any changes to policy features.

**Trustee** – The trustee performs all the duties it is assigned in the transaction's indenture. In general, the trustee is responsible for: holding the bonds/notes for the benefit of the noteholders; for holding the security granted by the issuer over its assets; and for making payments and performing certain other obligations pursuant to the indenture. The trustee also holds all documents delivered to the issuer in connection with each life settlement. In addition, the trustee performs certain duties related to documenting life insurance policy acquisitions, fund transfers and submission of claims for payment under life insurance policies on the instructions of the collateral manager.

**Actuaries** – Actuaries play an important role by helping determine the appropriate mortality tables for the transaction; assessing the reasonability of the mortality/survivorship schedule provided by the medical underwriters; performing an underwriting review of the medical underwriters used in the transaction; and helping the issuer determine the liquidation value of life settlements.

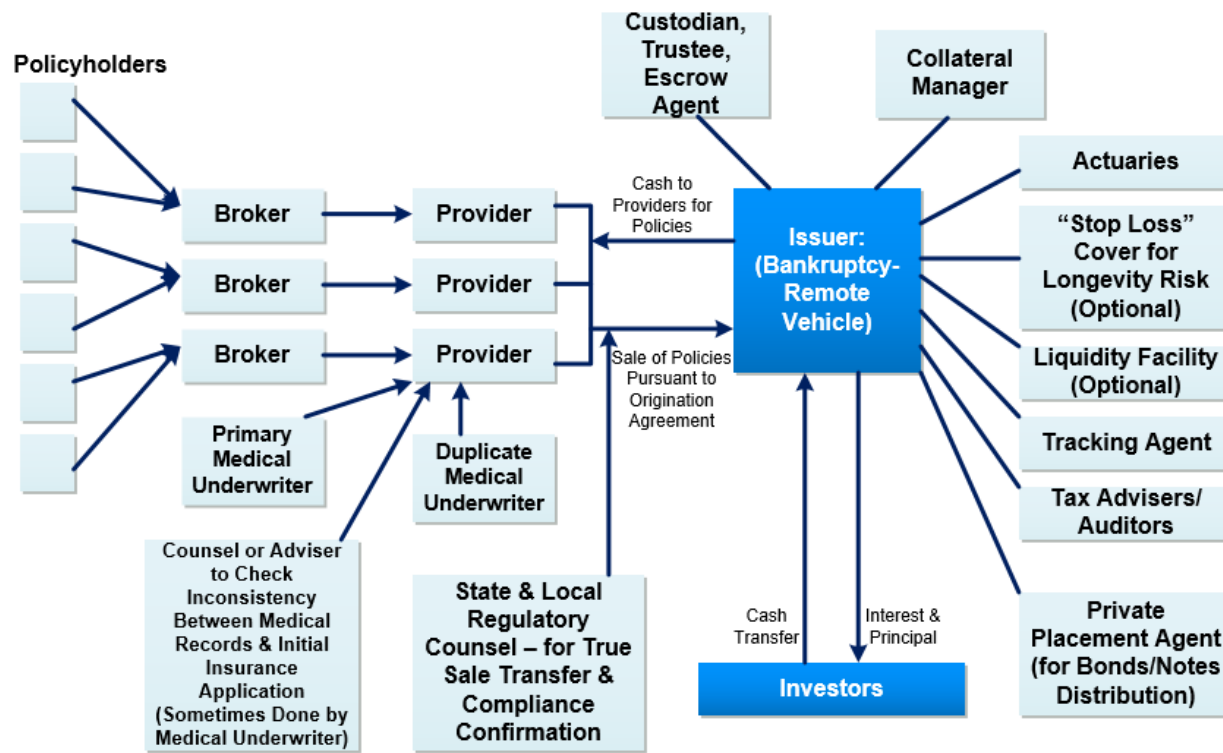
**Insurance Companies** – The insurance companies that issued the life insurance policies in the transactions are critical because they must be notified of the transfer of the policy's ownership, they can provide policy illustrations to help with policy optimization, and they are responsible for sending notices to the issuer about the policies and for sending the death benefits to the issuer.

**Attorneys** - Attorneys can help ensure that all documentation is complete and has been prepared in compliance with state insurance regulations, and that the integrity of the insurable interest doctrine is maintained. They may also provide comfort letters to verify the states in which providers are licensed, and they can help craft medical disclosure forms to comply with applicable privacy laws. In addition, attorneys ensure that the bankruptcy-remote entities from which the securities are issued have been created in order to protect the assets of security holders.

**Accountants/Auditors** – Accountants can provide opinions about (1) the recognition of income and expenses in the bankruptcy-remote entity's country of domicile; (2) the tax implications, if any, of acquiring life settlements by the entity; (3) any special tax treatment/implications associated with the disposal of life settlements; and (4) identification of any tax withholding requirements that might be applicable to the entity. Auditors periodically provide opinions on the integrity of the balance sheet and income statement of the bankruptcy-remote entity.

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Exhibit A.3: Life Settlement Securitization Diagram



## B. Rating Considerations

### Rating Approach

The acquisition of new life settlements for securitizations is fraught with uncertainties: the extent to which the sellers of the insurance policies have established insurable interest in the lives of the insureds; the price of the life settlements; the estimated life expectancies of the individuals who sell their insurance policies; the availability of an ample pool of policies to satisfy the requirement for the transactions; the extent to which the various intermediaries involved in facilitating the sale of insurance policies have adhered to legal and regulatory requirements; and other factors that can make building a suitable life settlement portfolio challenging. Due to these uncertainties, AM Best expects that an issuer seeking an issue credit rating must have acquired 100% of the life settlements necessary for the transaction (or will acquire the life settlements no later than the closing date of the transaction) and have met the conditions outlined in this criteria procedure. AM Best expects the issuer to conform to any disclosure requirements for registered securities as mandated by applicable securities laws, the Securities and Exchange Commission or other regulators.

In order to evaluate an issue credit rating, AM Best expects to review a nearly-finished version of the indenture and/or offering memorandum from the attorneys engaged by the issuer. In addition, all essential elements of the transaction should be in place.

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## Analyses Based on Existing or Newly Formed Portfolio of Life Settlements

AM Best generally expects to rate securities backed by new life settlements that have been purchased policy by policy over a period of 18 months or less. However, AM Best is aware that there are large pools of aged life settlements for sale by institutional investors or providers that wish to liquidate their holdings. Acquiring an existing portfolio eliminates the ramp-up period, which can be extensive for life settlement transactions, and may mitigate some of the other uncertainties associated with purchasing policies over time. Buyers of existing portfolios, however, run the risk of inheriting the legal and regulatory risks inherent in the manner in which the portfolios were originated, and the inability to obtain up-to-date medical underwriting on the lives in the portfolios. Thus, it may take a longer period of time to evaluate the risks associated with existing pools and these pools may require more extensive legal and origination reviews.

AM Best, under certain situations, may make its decision on whether to rate securities collateralized by an existing life settlement portfolio based on various factors, including (but not limited to): the life settlement origination criteria established by the aggregator; the specific medical underwriters used and the availability of any and all life expectancy projections on the lives in the portfolio; when the medical underwriter determined the life expectancies of the lives in the portfolio; the ease of the legal transfer of the portfolio to the issuer; the availability of the data needed for surveillance of the transaction (as described in the Surveillance section of this document); the availability of independently verified historical mortality experience of the portfolio; and the availability of legal opinions verifying adherence to insurable interest laws.

## Analytical Approach

The mortality profiles of the insureds, as provided by reputable medical underwriters, are used in simulating the maturities in the entire life settlement portfolio. In addition, the probabilities of impairment of the insurance companies and the assumed recoveries are applied to the transaction. These factors, along with the face value of each life settlement, the premium for each policy and the projected increases in premiums (if any) in the event the insureds live longer than expected are considered in arriving at the cash flows that will service the securities and the issuer's operating expenses. The end result determines the default probability of the securities, which then is correlated to *Best's Idealized Issue Default Matrix* found in *Best's Insurance-Linked Securities & Structures Methodology* (BILSM). This process, in conjunction with meeting various stress scenarios and qualitative considerations, informs the rating committee and helps to establish the credit rating on the securities.

## **Types and Conditions of Policies Considered**

Issuers of securities backed by life settlements can hold life insurance policies such as: universal life, variable universal life, whole life, variable whole life, term life, joint survivorship, and group policies. AM Best may also consider term policies that are convertible or exchangeable to permanent policies without a new medical evaluation and without a new contestability or suicide provision as part of a life settlement securitization. The anticipated maximum increase in premiums at the time of



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conversion or exchange is expected to be disclosed. Term policies that are neither convertible nor exchangeable may also be included in the transaction. There is, however, a 10% limit on the number of lives covered by term policies in the pool and a 10% limit on the aggregate face value of the term policies in the pool. Since group policies are subject to the risk that the sponsoring employer, union or association will become insolvent, AM Best will only consider convertible group policies in the collateral pool.

AM Best's general guidelines related to the features of the insurance policies in life settlement securitizations are:

- Only policies issued by US insurance companies on US residents
- Assignment of the policy to another party should not be restricted
- Exclusion of fractional shares of policies
- Confirmation that the policy is in-force and is not within the grace period
- No restrictions should exist on the payment of the full, current net death benefits due the beneficiary in the event of the insured's death, except for nonpayment of the current premiums
- Confirmation that nothing prevents the payment of insurance benefits in one lump sum
- Verification that the policy is not encumbered by any other party

### Service Providers

#### **Medical Underwriters**

##### ***Mortality Ratings and Life Expectancy Estimates***

Medical underwriters use a numerical rating system developed by reinsurers to determine how an individual's mortality differs from a "standard" risk. In general, standard risk is given a value of 100%, which represents a unit of risk. The system assigns debits and credits to a life where debits are factors that increase a person's mortality over a standard risk and credits are factors that decrease a person's mortality over a standard risk. For example, an individual might have coronary heart disease that may be assigned a debit of 150%, and if that person has had bypass surgery to manage the ailment, they may earn credits of 25%. When the debits and credits are summed, the person has a net debit balance of 125%. If a standard risk is considered to have a table rating of 100%, then this risk relative to standard will have a rating of 225%. This can be interpreted to mean that the probability that this individual will die is 125% higher than that of a standard risk – i.e., 225% of a standard risk. One of the significant tasks a medical underwriter has to undertake is to determine what is a standard risk, since the mortality rating is a relative measure of the probability of death, not an absolute measure.

The standard risk class should represent a combination of risks that are substandard as well as risks that are above standard – not just risks of healthy individuals. To arrive at a life expectancy for most lives, the medical underwriter applies the mortality rating to its standard mortality experience, otherwise known as the "reference mortality experience". Because each medical underwriter uses its

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own mortality tables and has its own method of determining debits and credits to account for diseases, lifestyle and mortality improvements, it is difficult to derive a mortality curve for an insured unless one knows the specific standard table used by that medical underwriter. For this very reason, a mortality rating from a medical underwriter for an insured is reviewed along with the corresponding standard mortality table that is used to derive the life expectancy; otherwise, the data set is incomplete for the purposes of analyzing mortality risk.

AM Best expects the issuer to provide the primary disease associated with each life. The primary disease is the impairment for which the most debits have been assigned and that accounts for 50% or more of the total debits. If no single impairment accounts for 50% or more of the total debits, then the disease category should be classified as “Multiple.” The categorization of diseases as described later in this criteria procedure will help ensure the disease diversity of the portfolio is sufficient to mitigate any cures of the diseases suffered by the insureds. **Exhibit B.1** shows the diseases associated with the lives in typical life settlement pools and a typical set of maximum limits for each disease as a percentage of the portfolio.

To help mitigate the effect of systematic errors by medical underwriters in the determination of life expectancies or the assignment of mortality ratings, AM Best generally expects that at least two independent medical underwriters provide an evaluation of the health condition of the insureds in the collateral pool based on the medical records obtained from the primary physicians of the insureds. If more than 12 months have elapsed between the time of the most recent life expectancy reports (prepared with updated medical files) and the time of the contemplated securitization, new medical underwriters’ reports should be obtained.

### Exhibit B.1: Disease Diversity

Disease or Category	Examples	Maximum Limits
Cardiovascular	Coronary Artery Disease, Arrhythmia Other (e.g., Heart Valve Disease)	50%
Cerebrovascular	Stroke, Carotid Artery, Transient Ischemic Attack	20%
Dementia	Alzheimer's, Multi-Infarct	20%
Cancer	Lung, Prostate, Breast, Hematological, All Other Cancers	25%
Diabetes	Type 1, Type 2	10%
Respiratory Diseases	Emphysema, Asthma, Sleep Apnea, Chronic Obstructive Pulmonary Disease	20%
Neurological Disorders (Excluding Alzheimer's)	Parkinson's, Lou Gehrig's Disease (ALS)	15%
Other	Renal Failure, Peripheral Vascular, etc.	20%
No Disease		100%
Multiple		40%
HIV/AIDS		0%

As a practical matter, it is unlikely that a buyer of a life settlement will have continual access to the medical records of the insured once the insured has been paid for his or her policy, even if the buyer has a limited health-care power of attorney. First, as time elapses, the insured may move and engage the services of a new physician, who may not be willing to comply with the request for medical records. Second, the insured has no incentive to provide medical records to the buyer of his or her insurance policy, and it may not be practical for such a buyer to enforce the right to obtain the medical records through legal action, even if there is an enforceable limited health-care power of attorney.



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With older life settlement portfolios available for sale in the so-called tertiary market, AM Best is seeing more proposals for life settlement securitizations that contain life settlements with associated life expectancies that were issued years earlier. Some of the major medical underwriters, however, have subsequently changed their standard mortality tables and underwriting protocols considerably. AM Best notes that medical underwriting reports are sometimes updated, even if such updates are done with the old medical records. In general, the level of credence AM Best ascribes to medical underwriting for legacy portfolios depends on the level of updates. The level of medical updates from highest (most reliable) to lowest are as follows: 1) signed medical underwriting report created with new medical records (on an “as is” basis) performed by established medical underwriters within one year of the contemplated securitization; 2) signed medical underwriting report created with old medical records (on an “as was” basis) performed by established medical underwriters; 3) medical underwriting based solely on new mortality tables performed by established medical underwriters; 4) updates by others (including actuaries) based on their knowledge of how the mortality tables and/or underwriting procedures of the various medical underwriters have changed over time.

The adjustments, if any, made by AM Best to issued life expectancies and/or mortality ratings, particularly in stress scenarios, will depend on the level of medical underwriting updates as described above, and on: 1) AM Best’s knowledge of the differences among the medical underwriters based on its evaluation of average life expectancies by cohorts, and 2) the date of the original underwriting.

AM Best expects that issuers will provide any and all life expectancies and mortality ratings obtained from independent medical underwriters on the lives in any portfolio it evaluates. In addition, issuers should be prepared to provide redacted medical underwriting reports so AM Best can verify a sample of the underwriting information.

### ***Underwriting Evaluation of Medical Underwriters***

For investors, two of the most important factors in evaluating life settlements are longevity risk and the potential for medical underwriters to systematically misestimate life expectancies. AM Best has observed that maturities (i.e., deaths) in life settlement portfolios accumulated over the past decade have not kept pace with the projections made by medical underwriters when the portfolios originally were formed. Public records filed with the Securities and Exchange Commission by significant holders of life settlements have reported material write-downs of life settlement portfolios despite the major underwriting adjustments that were made by some medical underwriters in the past. For these reasons, AM Best expects that an independent actuarial organization will perform an actuarial review of the efficacy of the primary medical underwriter associated with new transactions or with existing transactions where underwriting standards of the primary underwriter have changed significantly.

When reviewing the medical underwriter used in assigning life expectancies and/or mortality ratings to the lives in the life settlement securitization, AM Best expects the issuer’s representatives and/or the medical underwriter to discuss the following issues:

- Underwriting methodology and philosophy

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- Physician/underwriter evaluator's background and credentials
- Standard mortality table(s) used to determine life expectancy estimates
- The extent of the self-evaluation of the medical underwriter's efficacy (i.e., results of experience studies from internal database)
- Record keeping and process flow
- Source materials such as reinsurance manuals and clinical studies for specific diseases
- Extent and frequency of updates of source materials/reinsurance manual
- Recent changes and reasons for changes in the methodology used by medical underwriters

Among the questions that the issuer and the medical underwriter should be prepared to answer are the following:

- What is the general nature of the adjustments made to the standard mortality table(s) used?
- Are flat extras used? If so, for what diseases?
- Are debits always additive? How are debits scaled back for co-morbidity?
- Under what circumstances are mortality tables abandoned and other methods applied for estimating life expectancies?
- Are mortality improvements factored into the life-expectancy figures?
- When using mortality tables, is "age near" or "age last" the applicable age used for the analysis?
- What are the maximum and minimum ages for which a life expectancy will be provided?
- What are the maximum and minimum mortality ratings issued?
- What is the maximum age of medical records for an evaluation? (For example, if medical records are 15 months old, will a life expectancy still be issued?)
- When medical records have aged, are the life expectancies provided adjusted for the period between the time the records were created and the time of the medical underwriter's evaluation?
- Is a survivorship schedule provided?
- Does the medical underwriter provide joint life-expectancy calculations?

### **Providers**

Providers purchase insurance policies from a seller or a licensed broker or agent authorized to act for the seller. The purchases of life settlements are made through licensed providers approved by the collateral manager of the transaction. In the case of life settlement securitizations, a provider generally purchases policies for the issuer pursuant to an origination agreement between the issuer and the provider. AM Best expects that the purchase agreement will comply with all applicable state insurance laws and regulations governing life settlement or viatical financing transactions between the issuer and the life settlement providers.

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Issuers are expected to identify the providers they intend to use or have used for their transactions. AM Best will consider the following when assessing the providers:

- The various states in which the providers are licensed to conduct business (in states where licensing is required)
- The providers' prior policy purchasing experience for institutional investors
- The providers' infrastructure and systems for handling the administrative tasks and regulatory compliance issues associated with life settlements
- Significant pending legal matters against any providers
- Business practices that enhance disclosure for investors and insureds selling their policies in the secondary market
- Other considerations that may help AM Best gauge the credit quality of the transaction

If a provider has any ongoing financial interest in the transaction aside from its capacity as the source of policies for the issuer, AM Best expects that there will be full disclosure of that relationship.

### **Attorneys**

One of the most fundamental concepts in life insurance is that of insurable interest. The insurable interest doctrine provides that in general, the beneficiary of an insurance policy has either:

- Some relationship by blood or by law to the person being insured or
- An economic interest in having the life, health or bodily safety of the individual insured continue

The insurable interest doctrine makes it possible, for example, for an individual to buy an insurance policy on his or her parents or business partner.

In the special case where an individual procures a policy insuring his or her own life and pays the premiums for the policy, that person is said to have an unlimited insurable interest in his or her own life and, as such, may designate any person as the beneficiary of the policy. That beneficiary need not have any particular relationship to the insured. When the policy owner is not the insured, the beneficiary must be a person or an entity with insurable interest in the insured's life. Insurable interest may be questionable with certain so-called premium financed policies where an irrevocable life insurance trust borrows money to pay premiums generally over the first two to five years of the policy's in-force period. AM Best expects that the issuer will conduct reviews of the origination documents of the life settlements, including trust documents (if applicable) to reasonably ensure that insurable interest laws are observed.

In general, after a provider makes a purchase offer to the seller of the insurance policy (normally, the insured), a sales documentation package is drafted. Through this documentation package, the issuer will contract to purchase from the seller all rights, titles and interests in the life settlement policy. The

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sales documentation package must be complete and must follow all applicable state insurance laws and regulations. The typical items that the issuer's attorneys review are as follows:

- The completeness of the sales documentation package (for each insured) for compliance with established regulations for life settlement acquisitions
- The states in which each provider in the transaction is licensed to conduct business (for states that require such licenses) and the insurance regulations related to life settlements or viaticals for those states
- Any significant, outstanding legal issues surrounding the provider

### **Servicers/Tracking Agents**

The servicer of a life settlement portfolio is one of the most important service providers in a life settlement securitization because the success of the transaction ultimately depends on the timely payout of death benefits by insurance carriers. Such timely payouts cannot occur unless the policies remain in-force in the most cost-effective manner as possible and the death benefits are collected as efficiently as possible.

A servicer's responsibilities typically include the following:

- Ensuring that the insurance policies stay in-force by the timely payment of premiums to the proper carriers
- Optimizing premiums when necessary
- Filing the necessary documents for policy conversions
- Maintaining confidential up-to-date health records
- Ordering new life expectancies, if necessary
- Tracking the status of insureds and making the issuer aware of the death of such insureds on a timely basis
- Maintaining correspondence with carriers to monitor any changes to the insurance policies
- Facilitating the collection of death benefits upon the death of insureds
- Providing reports to the issuer regarding deaths, and any changes to policy features
- Backing up data and providing the means for transferring such data to back-up servicers

As part of the qualitative review of a transaction, AM Best will assess whether servicers have experience in servicing large pools of lives and whether they have the technological resources to perform such functions. Issuers that believe they can service the life settlements without employing an independent professional servicer must demonstrate to AM Best that they have the experience and the systems to track lives and to perform the major tasks typically performed by life settlement servicers.

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## **Collateral Managers**

AM Best expects the issuer to enter into a collateral management agreement with a collateral manager or to demonstrate the ability to perform the duties of a collateral manager. Some of the duties of the collateral manager in life settlement securitizations include:

- Managing the selection and acquisition (through approved providers) of the life settlements
- Optimizing the features of the insurance policies backing the life settlements
- Determining the appropriate amount of the premium reserve
- Determining whether to engage a longevity insurer or obtain a liquidity facility for the transaction
- Investing cash balances in approved, high-quality, short-term instruments
- Determining which policies should lapse or sell in the event of a liquidity crisis
- Performing other duties in the interest of the transaction's security holders

Some of the factors that AM Best considers when performing a qualitative review of a collateral manager are as follows:

- Experience in life settlement investments and portfolio optimization
- Knowledge of insurance policy features or access to experienced consultants
- Actuarial experience either on staff or through consultants
- Staffing and resources necessary to support the collateral management activities
- The quantitative skills to create financial models to select/manage a life settlement portfolio and to determine which policies to dispose of, lapse or modify (if necessary)
- The systems and infrastructure necessary to carry out its duties

## **Backup Service Providers**

Backup servicing agreements are important in life settlement transactions because the industry is in its development stage and servicers usually are small, entities not subject to meaningful external review. AM Best expects that issuers will seek backup servicers (especially backup tracking agents) and collateral managers (which presumably also perform policy administration and optimization). AM Best expects the use of an active backup servicer that has the ability to easily transition to the role of the primary portfolio servicer. The backup servicer is expected to have the electronic systems in place to accept the data transmitted by the primary servicer and should be able to prepare reports on tracking activities as requested by AM Best. The backup collateral manager should meet the same general requirements described earlier in this criteria procedure.

## **Auditors**

Public accountants play an important role in monitoring the activity of the bankruptcy-remote entity that issues the life settlement-backed securities. Accountants assist in the evaluation and identification

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of Generally Accepted Accounting Principles (GAAP) in relation to internal control and reporting-related issues. In addition, public accountants perform specific, year-end audits to express an opinion on the consolidated financial statements of the bankruptcy-remote entity. AM Best expects that a certified public accounting firm will be engaged to perform the following services:

- Perform audits of the books and records of the issuer (i.e., bankruptcy-remote entity)
- Issue a yearly report that expresses an opinion on the consolidated financial statements issued by the bankruptcy-remote entity
- Review the internal controls over cash receipts and disbursements performed at the legal entity
- Issue an opinion as to the GAAP consolidation requirements to the owners of the bankruptcy-remote entity

### **Arrangers of the Transaction**

The arrangers of the life settlement securitization transaction should clearly define their financial interest in the transaction. In addition, for arrangers that are not affiliates of large financial institutions, AM Best expects to be presented with their backgrounds, including their previous occupations and experience with life settlements.

### **Policy In-Force Period/Proper Transfer of the Policy**

Any policy contemplated for the collateral in a life settlement securitization is required to have been in-force for at least 24 months before being purchased in the secondary market. Converted policies are considered new policies if new contestability or suicide conditions are imposed on the policies. It is the issuer's responsibility to ensure that its providers keep track of the dates on which policies were acquired by the insureds and when the policies were sold in the secondary market.

In addition, there should be some checks and balances to ensure the proper transfer of policies to the bankruptcy-remote vehicle and to ensure that such policies will be unencumbered by challenges from relatives, former spouses and others. Typically, attorneys give opinions on whether policy transfers have followed the proper protocols.

### **Diversity**

#### **Disease/Insurance Company**

Diversity is an important factor in determining the composition of the collateral pool for life settlement transactions. In general, correlation among insureds in a life settlement portfolio occurs when a cure is discovered for a disease suffered by two or more insureds, because their life expectancies are increased simultaneously. Therefore, AM Best is unlikely to rate transactions based on only one specific disease such as Alzheimer's or diabetes without applying severe stresses on the transactions.



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While life settlement portfolios are inherently diverse, based on the statistical distribution of disease categories as determined by the medical underwriters, AM Best nevertheless expects that issuers will observe the maximum limits shown in **Exhibit B.1** on the broad disease categories in the collateral pool. The categorization of diseases is determined by the assignment of debits as described in the previous section of this criteria procedure entitled, Mortality Ratings and Life Expectancy Estimates.

Diversity of insurance companies is also important in life settlement transactions. Typically, AM Best does not expect the aggregate face value of the policies issued by any one insurance company to exceed 15%. If this threshold is exceeded, more stresses will be applied to the default probabilities assumed for the carriers backing the life settlements.

### **Number of Lives, Policy Size**

The number of lives in a portfolio of life settlements can help mitigate the volatility of the cash flows produced by AM Best's Life Contingent Simulation Model (LCSM), which is discussed later in this criteria procedure. The more lives in the pool, the narrower the distribution of maturities produced by the model, but the desire to have a large portfolio must be balanced with: 1) the marginal benefit (in terms of narrowing the dispersion of maturities) gained by adding more lives to the portfolio, and 2) the fact that it can take a long time to accumulate a sizable portfolio of life settlements.

Typically, 300 lives or more with similar features are necessary to produce stable cash flows, although in practice, it is extremely difficult to achieve uniformity in a pool of life settlements. If fewer than 300 lives are included in the life settlement portfolio, and there are no longevity hedges in the transaction, AM Best will apply additional stresses in evaluating the credit quality of the securities in the transaction. As for the concentration associated with a life, no one life should normally comprise more than 3.33% of the face value of the entire collateral pool.

It is important to note that a flawed approach by the medical underwriters in how they determine either life expectancies or mortality ratings will not be ameliorated simply by having a large number of lives in a life settlement pool. Such systematic errors, introduced by inaccurate underwriting, will be duplicated across a larger portfolio.

### **Longevity Risk Mitigation**

Longevity risk is the risk that an insured lives longer than was reasonably predicted by medical underwriters. The longer the insured lives, the more premiums the owner of the life settlement will have to pay, and the further in the future the death benefits will be realized. Longevity risk typically can be managed by a longevity insurance policy that helps the issuer mitigate the risk that maturities will not meet defined thresholds over specific periods. While AM Best does not require longevity insurance, such insurance may enhance the transaction, depending on the cost to the issuer and the rating, if any, of the insurer.

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## Liquidation Prospects/Liquidity Risk Mitigation

AM Best believes that the sale of life settlements is not a viable option to meet liquidity needs of any transaction because of: 1) the uncertainties surrounding the liquidation value of an individual life settlement; 2) the extensive amount of time and effort it might take to actually sell life settlements; and 3) the dramatic effect excessive sales of life settlements would have on the transaction's future cash flows. In short, AM Best takes a negative view of transactions that rely on the liquidation value of policies to meet cash needs.

A common method of mitigating liquidity risk is to have adequate cash in a reserve fund to meet short-term cash-flow needs. The disadvantage of this method is that a large amount of cash in reserve reduces the available funds for purchasing life settlements.

Another common method of mitigating liquidity risk is with a liquidity facility from a rated financial institution. The liquidity facility can be used to pay premiums on the policies and/or interest to the noteholders. The financial institution offering the liquidity facility typically would place a lien on the life settlements in the transaction, and the repayment of the funds borrowed by the issuer typically is at the top of the transaction's "priority of payment" list or "waterfall." Maintaining and using a liquidity facility can be beneficial if it is not expensive and if the floating-rate costs are swapped to fixed costs using an external hedging instrument. The major disadvantage of a liquidity facility, however, is that it introduces the credit risk of the liquidity provider to the transaction. AM Best expects that the optimal size and term of the liquidity facility will be determined through the modeling of the transaction in order to ensure timely payment of premiums and/or interest and principal to noteholders.

## Premium Optimization

Issuers may choose to optimize premiums on certain types of insurance policies (such as universal life and variable universal life policies) by using the cash values in the policies to reduce premium payments or simply by reducing premium payments to the minimum levels necessary for keeping the policies in-force. AM Best expects the optimization of premiums to be implemented by independent, professional actuarial organizations unless the arrangers have in-house access to actuaries who can perform the same function. In addition, AM Best expects the arrangers of the transactions to engage actuaries to periodically review the efficacy of the premium optimizations.

## Sponsor Expertise

A significant qualitative aspect of AM Best's analysis is the assessment of the sponsor's expertise in life settlements and structured securities. A small number of participants comprise the life settlement industry. Its participants have developed reputations in various areas, such as the ability to source policies, integrity in soliciting objective life expectancies and other matters related to the efficient execution of life settlement transactions. AM Best expects the sponsor (or its representatives) to demonstrate a high degree of knowledge about policy providers, tracking agents, medical underwriters and other significant service providers associated with the transaction. In addition, AM Best expects

# Life Settlement Securitization

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to be informed of any significant legal actions or complaints against any service provider that may be involved in the transaction.

## General Legal Review/Tax Opinion/Documentation

### **Legal**

The following list includes expected legal opinions, conditions and verifications for setting up a transaction collateralized by life settlements:

- Unqualified legal opinion indicating that the transfer of life settlements from the seller to the issuer constitutes a true or absolute sale, not a pledge of collateral. Absence of this opinion would lead AM Best to conclude that the credit quality of the securities in the transaction is very closely linked to the credit quality of the transferor
- Legal opinion stating that if the transferor becomes insolvent, neither the issuer nor its assets or liabilities would be substantively consolidated with the transferor. Absence of this opinion would lead AM Best to conclude that the credit quality of the securities in the transaction is very closely linked to the credit quality of the transferor
- Unqualified legal opinion that the issuer will satisfy special-purpose, bankruptcy-remote criteria such as:
  - Issuer's business must be restricted to the purchase of the life settlements and the issuance of the rated debt
  - Issuer may not incur any additional debt unless the additional debt is subordinated fully to the rated debt and the subordination is explicitly stated in the legal documents
  - Additional debt will not impair the rating of the rated debt
  - Issuer should have a separate corporate existence with independent officers and directors, separate books and records, and appropriate meetings of the board of directors to authorize corporate action
  - Issuer shall not engage in any dissolution, liquidation, consolidation, merger or asset sale (other than as provided in the relevant transaction documents) or amendment of its organizational documents so long as the rated securities are outstanding
  - All of the issuer's assets, such as the life settlements, the various proceeds accounts, the escrow accounts and all other assets that generate income for the structure, are pledged to secure the issuer's debt
  - Written agreements with all service providers
- Typical documentation associated with private placements such as: offering memorandum, trust indenture, trustee agreements, etc.
- Disclosure of any agreements (written or unwritten) between the issuer and any other parties that outline the distribution of the residuals in the transactions after the rated debt has been fully redeemed

# Life Settlement Securitization

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## Expected Data/Information Submissions

The following is a list of the data to be reviewed as part of the analysis for an issue credit rating. This list may be modified depending on the exact structure of the transaction under consideration. AM Best will provide to the issuer's representatives a template in which to enter the data.

### **Collateral**

For each life/policy in the life settlement securitization collateral pool, provide the following (as applicable):

- Birth date of the insured and age last birthday (ALB) at the time of last underwriting
- Gender
- Smoking status (smoking/non-smoking)
- Monthly face value (death benefits) up to policy expiry date
- Monthly premiums up to policy expiry date
- Any and all life expectancies from last full medical underwriting (medical underwriting done with up-to-date medical records)
- Any and all mortality ratings associated with the last full medical underwriting
- First Duration (in months) – the period in months between the date of the first full medical underwriting and the first month of the securitization
- Second Duration (in months) – the period in months between the date of the latest full medical underwriting and the first month of the securitization
- Unique identification number for each policy
- Unique alpha-numeric identifier for primary life and secondary life (if joint) associated with each policy
- Classification of the types of policies in the following categories: universal life, whole life, variable life, variable universal life, survivorship universal life, term, etc.
- Policy expiration date, if applicable
- In-force date of the policy
- Date the policy was initially sold into the secondary market, if available
- Date the policy was acquired for the transaction
- Disease code/category, if available
- State in which policy was issued (state of origination)
- Precise operating insurance carrier name and the corresponding AM Best number
- If requested, the insurance agents/life settlement brokers involved in the origination of specific categories of policies (such as premium financed policies or policies with death benefits exceeding specific thresholds)
- Premium Financed Policies

## Life Settlement Securitization

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- Identify known and assumed premium financed policies
- Identify program names associated with these premium financed policies
- Tabulate premiums already paid up to the first month of the securitization
- Identify “Carrier Approved” premium financing programs, if any

### **Transaction Structure**

- Size/tranches of securities to be issued
- Size of unrated equity
- Interest rates paid on the securities
- Liquidity facility (including repayment terms and collateral liens)
- Reserve amount – identify if any additional reserves for legal challenges or re-underwriting are in the transaction structure
- Credit enhancements/guarantees
- Waterfall
  - Clear outline of priority of payments
  - Clear definition of what constitutes a default including specifics about whether negative amortization is allowed
  - Specify fees and ongoing expenses, such as:
    - Start-up expenses
    - Trustee
    - Administrative
    - Tax advisers
    - Tracking agent
    - Collateral management
    - Auditors
    - Attorneys
    - Warehouse funding, if any
    - Medical underwriters
    - Actuaries
    - Any other expenses

### **C. The Assignment of a Rating**

This section outlines the significant aspects of evaluating the credit risk of securities backed by life settlements. A more detailed review of the model assumptions will be discussed with the issuer at the inception of the securitization.

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## Mortality Profile of the Life Settlements

The ratings assigned to life settlement-backed securities are determined primarily by the mortality profile of the lives associated with the collateral pool and other factors related to credit and regulatory risks. (See **Exhibit C.1** for a list of the main risks to investors).

### Exhibit C.1: Main Risks to Investors

**Origination Risk** - The risk that originators may have violated their fiduciary responsibilities to the insureds, originations have been done in contravention to existing state and federal regulations; and that originators have exposed the investor to insurable interest and fraud challenges by insurers.

**Risk of Life Expectancy Misestimation** - The risk that medical underwriters have systematically misestimated life expectancies and/or that they have not followed established and reasonable standards for estimating life expectancies.

**Risk of Adverse Selection** - The risk that the insureds who sell policies to the life settlement market know more about their health than buyers, and thus may actually be healthier than the indications from medical records evaluated by medical underwriters.

**Service/Tracking Agent Risk** - The risk that the servicer charged with tracking deaths, optimizing policies, facilitating the collection of death benefits and making decisions related to keeping the policies in-force is not competent to provide such services.

**Longevity Risk** - The risk that the life expectancy of insureds could increase due to cure discoveries, which means that investors will have to pay premiums longer than expected.

**Credit Risk of Insurers** - The risk that insurers may default on the payment of death benefits.

The parameters necessary to gauge the mortality profile of the lives associated with life settlement pools include the insured's: age last birthday; gender; smoking status; documented specific impairments; assumed mortality improvements; lifestyle, and other factors. Using these parameters, medical underwriters can provide: 1) a standard mortality table upon which debits and credits are applied; 2) a mortality rating that the medical underwriter applies to its base mortality table to derive the life expectancy for each insured; 3) a life expectancy estimate for each insured (including the joint life expectancy estimates for second-to-die policies); 4) a mortality or survivorship schedule for each insured (given medical impairments); 5) the primary disease category for each insured, if one has been identified; and 6) any reports that validate the historical accuracy of the medical underwriters' life-expectancy projections.

If a medical underwriter publicly provides its standard mortality tables; the mortality ratings for the insureds in a life settlement pool; and its methodology for applying the mortality ratings to the tables, AM Best is willing to review and, perhaps, use the mortality tables for its analyses as long as they have been constructed with the help of an independent actuarial firm that provides a report on the methodology used for constructing the tables.

Some medical underwriters consider their standard mortality tables to be proprietary, and thus only provide life expectancies and mortality ratings in their reports. In such cases, AM Best will determine the mortality ratings that will yield the provided life expectancies.



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## Adjustments to Mortality Ratings

Mortality ratings issued by medical underwriters or derived by solving for life expectancies are modified by AM Best before applying them to the mortality rates associated with lives in a given portfolio. The modifications are based on 2008 Valuation Basic Tables (VBT) and influenced by: 1) analytical judgment based on AM Best's observations of the general performance of life settlement portfolios; and 2) experience studies conducted by professional actuarial organizations regarding underwriting performance.

AM Best notes that the level of modifications to mortality ratings described in this section may vary based on:

- The specific nature of the underwriting regime followed by the primary medical underwriter involved in a given transaction
- Any future independent actuarial review of the efficacy of the primary medical underwriter
- The specific mortality table that undergirds the mortality ratings and/or the life expectancies issued by the primary medical underwriter
- The method of origination – whether/how the policies were purchased in the secondary or tertiary market, and other factors

The adjusted mortality ratings used in simulating cash flows in a transaction are derived by multiplying three factors: the Basic Adjustment Factor, the Age-Based Adjustment Factor and the Ratings Wear-Off Adjustment. The illustrative example used in demonstrating the application of these factors to the mortality ratings is based on a life settlement with the following characteristics:

- Issued to a male non-smoker who has just turned 77
- Medical underwriting indicates a mortality rating of 200% on his 77th birthday based on the 2008 VBT Primary Table (age last birthday)
- The life settlement was not premium financed
- The death benefit associated with the life settlement is USD 1 million

## **Basic Adjustment Factor**

The Basic Adjustment Factor is used to adjust the mortality rating for each life depending on: 1) the level of the mortality rating; 2) the aggregate death benefits associated with the life; and 3) whether any of the policies associated with the life were premium financed or were traditional life settlements. **Exhibit C.2** shows the Basic Adjustment Factor for life settlements classified in six main categories.

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## Exhibit C.2: Basic Adjustment Factor

Category	Mortality & Death Benefit Ranges	Basic Adjustment Factor (Male/Female)
1	MR <sup>1</sup> ≤ 125%, NPF <sup>2</sup>	70%/75%
2	125% < MR ≤ 200%, DB <sup>3</sup> ≥ \$1mm, NPF	75%/85%
3	125% < MR ≤ 200%, DB < \$1mm, NPF	85%/90%
4	MR > 200%, NPF	90%/100%
5	MR > 200%, PF <sup>4</sup>	75%/75%
6	MR ≤ 200%, PF	50% from Age Last Birthday (at time of latest underwriting) grading linearly to 70% by age 95 for both male and female

<sup>1</sup> MR = Mortality Rating

<sup>2</sup> NPF = Non-premium Financed

<sup>3</sup> DB = Death Benefit

<sup>4</sup> PF = Premium Financed

In this example, the applicable Basic Adjustment Factor would be 75% for a male issued a mortality rating of 200% for a USD 1 million, non-premium-financed policy.

## Age-Based Adjustment Factor

AM Best linearly reduces the mortality rating for each life after attained age 85. The reduction remains constant from attained age 95 on. For males, the Age-Based Adjustment Factor from attained age 85 to attained age 95 grades from 100% to 85%, respectively. For females, the Age-Based Adjustment Factor from attained age 85 to attained age 95 grades from 100% to 95% respectively. The following are the equations for the Age-Based Adjustment Factors for males and females:

$$\text{Male Age-Based Adjustment Factor} = -1.5\% * \text{Attained Age in Years} + 227.5\%$$

$$\text{Female Age-Based Adjustment Factor} = -0.5\% * \text{Attained Age in Years} + 142.5\%$$

The calculated Age-Based Adjustment Factor, using the formula above, for each gender is capped at 100% at any given attained age.

## Ratings Wear-Off Adjustment

The Ratings Wear-Off Adjustment is designed to reduce the effect of the mortality ratings issued by medical underwriters (or derived from life expectancies issued by underwriters) over time. AM Best assumes that mortality ratings are reliable for a period defined as the Ratings Stability Period, which is a maximum of seven years. After the Ratings Stability Period, the mortality ratings are assumed to wear off linearly to 100% by age 95, and the wear-off period occurs over a minimum of a three-year period regardless of age. The Ratings Wear-Off Adjustment is the mortality rating after adjusting for wear-off. The number of years in which the mortality wears off is the Wear-Off Period. Ratings Stability Periods and Wear-Off Periods are calculated as follows:

$$\text{Ratings Stability Period} = \text{MAX} (0, \text{MIN} [7, 95 - \text{Age Last Birthday}^1])$$

<sup>1</sup> The Age Last Birthday is the age as of the date of the latest medical underwriting.

## Life Settlement Securitization

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$$\text{Wear-Off Period} = \text{MAX} (3, 95 - \text{Age Last Birthday} - \text{Ratings Stability Period})$$

If the Ratings Stability Period is 0 (i.e. if Age Last Birthday as of the last underwriting date is greater than or equal to 95), the mortality rating is assumed to revert to 100% within three years of the Age Last Birthday.

In the standard example of a 77-year-old male nonsmoker with a mortality rating of 200%, the Ratings Stability Period and the Wear-Off Period are calculated as 7 and 11 years respectively, in the following manner:

$$\text{Ratings Stability Period} = \text{MAX} (0, \text{MIN} [7, 95 - 77]) = 7 \text{ years}$$

$$\text{Wear-Off Period} = \text{MAX} (3, 95 - 77 - 7) = 11 \text{ years}$$

Therefore, in the standard example, the Ratings Wear-Off Adjustment is maintained at 200% for a period equal to the Ratings Stability Period of seven years and then is scaled down linearly for 11 years to 100% by attained age 95 (i.e., the 18th duration). Please see **Exhibit C.3** (column A) for the Ratings Wear-Off Adjustment associated with this example.

If the insured's Age Last Birthday had been 96 instead of 77, the Ratings Stability Period and the Wear-Off Period would have been calculated as follows:

$$\text{Ratings Stability Period} = \text{MAX} (0, \text{MIN} [7, 95 - 96]) = 0 \text{ years}$$

$$\text{Wear-Off Period} = \text{MAX} (3, 95 - 96 - 7) = 3 \text{ years}$$

In this example, the Ratings Stability Period is 0, and the Wear-Off Period is three years from the Age Last Birthday. Please see **Exhibit C.3** (column B) for the Ratings Wear-Off Adjustment associated with this example.

If the insured's Age Last Birthday had been 93 instead of 77, the Ratings Stability Period would have been calculated as follows:

$$\text{Ratings Stability Period} = \text{MAX} (0, \text{MIN} [7, 95 - 93]) = 2 \text{ years}$$

$$\text{Wear-Off Period} = \text{MAX} (3, 95 - 93 - 2) = 3 \text{ years}$$

In this example, the 200% mortality rating would remain stable for two years (the Ratings Stability Period) and then would wear off over a three-year period (the Wear-Off Period). Please see **Exhibit C.3** (column C) for the Ratings Wear-Off Adjustment associated with this example, which shows the adjustment for each of the three examples in this section.

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**Exhibit C.3: Ratings Wear-Off Adjustment<sup>1</sup> (Mortality Rating at ALB<sup>2</sup> = 200%)**

	A	B	C
	Ratings Wear-Off Adjustment (ALB = 77)	Ratings Wear-Off Adjustment (ALB = 96)	Ratings Wear-Off Adjustment (ALB = 93)
Duration			
1	200%	167%	200%
2	200%	133%	200%
3	200%	100%	167%
4	200%	100%	133%
5	200%	100%	100%
6	200%	100%	100%
7	200%	100%	100%
8	191%	100%	100%
9	182%	100%	100%
10	173%	100%	100%
11	164%	100%	100%
12	155%	100%	100%
13	145%	100%	100%
14	136%	100%	100%
15	127%	100%	100%
16	118%	100%	100%
17	109%	100%	100%
18	100%	100%	100%
19	100%	100%	100%
20	100%	100%	100%

<sup>1</sup> Reflects Adjusted Mortality Rating at Year-End

<sup>2</sup> ALB = Age Last Birthday

## **Combining Adjustment Factors**

The Basic Adjustment Factor, the Age-Based Adjustment Factor and the Ratings Wear-Off Adjustment are multiplicative and ultimately produce the effective mortality ratings at the appropriate corresponding durations. Column D in **Exhibit C.4** shows the resulting Adjusted Mortality Rating over a 20-year period for the illustrative example.

The Adjusted Mortality Rating is calculated for each life in the portfolio of life settlements for each year. Ultimately, the mortality rate (from the appropriate mortality table such as the 2008 VBT) for each life and for each year is multiplied by the Adjusted Mortality Rating for that life and year to produce the corresponding Adjusted Mortality Rate as shown in Column C of **Exhibit C.5** using the illustrative example. Thus, a matrix of Adjusted Mortality Rates (the Adjusted Mortality Matrix) is created for calculating the cash flows of the life settlement portfolio.

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### Exhibit C.4: Adjusted Mortality Rating

(Example: Male; Age = 77; Mortality Rating = 200%; Death Benefit = USD 1 million; Non-premium Financed)

	A	B	C	D <sup>1</sup>
Duration	Ratings Wear-Off Adjustment	Basic Adjustment	Age-Based Adjustment	Adjusted Mortality Rating <sup>2</sup>
1	200%	75%	100.00%	150.00%
2	200%	75%	100.00%	150.00%
3	200%	75%	100.00%	150.00%
4	200%	75%	100.00%	150.00%
5	200%	75%	100.00%	150.00%
6	200%	75%	100.00%	150.00%
7	200%	75%	100.00%	150.00%
8	191%	75%	100.00%	143.25%
9	182%	75%	98.50%	134.45%
10	173%	75%	97.00%	125.86%
11	164%	75%	95.50%	117.47%
12	155%	75%	94.00%	109.28%
13	145%	75%	92.50%	100.59%
14	136%	75%	91.00%	92.82%
15	127%	75%	89.50%	85.25%
16	118%	75%	88.00%	77.88%
17	109%	75%	86.50%	70.71%
18	100%	75%	85.00%	63.75%
19	100%	75%	85.00%	63.75%
20	100%	75%	85.00%	63.75%

<sup>1</sup> D=A\*B\*C

<sup>2</sup> Reflects Adjusted Mortality rating at year end

Please note that the calculations above are performed at the beginning of the transaction after considering the elapsed time between the last full medical underwriting and the first month of the securitization.

### Insurance Company Default Risk

*Best's Idealized Issuer Default Matrix* in BILSM shows the default rates associated with insurers. The default rates in this matrix are applied to the insurance companies in life settlement securitizations. If an insurer is not rated by AM Best but is rated by another nationally recognized statistical rating organization (NRSRO), that rating would be used in the analysis. Insurers with no ratings from any NRSROs generally will be assigned an Issuer Credit Rating (ICR) of "bb+". Insurers with no ratings from any NRSROs and that have become impaired in the past (and recovered from such impairments)

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will be assigned an ICR of “b”. In such cases, an exception may be made subject to analytical judgment when: 1) the company has continued making payments on its contract obligations for the past three years or 2) insurance regulators have expressed confidence that all death benefits will be paid in full during the rehabilitation or runoff process. It should be noted that for insurers with no ratings from any NRSROs, AM Best will make the assumption that the insurer will be downgraded severely in the stress scenarios presented to credit rating committee.

### Recoveries of Death Benefits after Insurer Impairments

Insurance company impairments may result in the diminution of death benefits. In general, guaranty funds cover nearly all death benefits in the event of an insurance company’s impairment, up to a limit of about USD 300,000 in most states and USD 500,000 in a few others. However, this limit is probably smaller than the face values of the policies in most life settlement transactions, which generally range from USD 1 million to USD 2 million. The unpaid death benefits are paid out of the estate of the insolvent insurance company if the company goes into liquidation. While the anecdotal evidence indicates that policyholders rarely lose money in life insurance company insolvencies, a rigorous life settlement model includes the possibility of losses should such events occur, since these are long-term transactions. AM Best generally will assume the recovery rate after insurance company impairments to be 80% over the amount recovered from the guaranty funds.

#### Exhibit C.5: Adjusted Mortality Rate

(Example: Male; Age = 77; Mortality Rate = 200%; Death Benefit = USD 1 million; Non-premium Financed)

Duration	A	B	C <sup>1</sup>
	Mortality Rate <sup>2</sup>	Adjusted Mortality Rating <sup>3</sup>	Adjusted Mortality Rate
1	0.89%	150.00%	1.33%
2	1.34%	150.00%	2.00%
3	1.83%	150.00%	2.73%
4	2.36%	150.00%	3.52%
5	2.95%	150.00%	4.39%
6	3.58%	150.00%	5.32%
7	4.28%	150.00%	6.35%
8	5.26%	143.18%	7.44%
9	6.54%	134.32%	8.68%
10	7.92%	125.66%	9.85%
11	9.44%	117.20%	10.97%
12	11.14%	108.95%	12.07%
13	12.95%	100.91%	13.06%
14	14.72%	93.07%	13.77%
15	16.46%	85.43%	14.24%
16	18.28%	78.00%	14.57%
17	20.13%	70.77%	14.71%
18	21.86%	63.75%	14.55%
19	23.54%	63.75%	15.73%
20	25.30%	63.75%	16.97%

<sup>1</sup> C = 1-(1-A)<sup>B</sup>

<sup>2</sup> From 2008 VBT primary table

<sup>3</sup> Reflects Adjusted Mortality Rating at year-end



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## Death Benefit Collection Period

The prompt collection of death benefits will depend on the competence of the servicer, particularly in its function as a tracking agent and its efficiency in helping the issuer in obtaining death certificates and performing other duties pursuant to the prompt collection of death benefits. Unless the issuer presents credible data to show a shorter historical lag between the time of death and the time of the collection of death benefits for the life settlement pool being securitized, AM Best will assume that there is a three-month lag between the death of an insured and the collection of the death benefit.

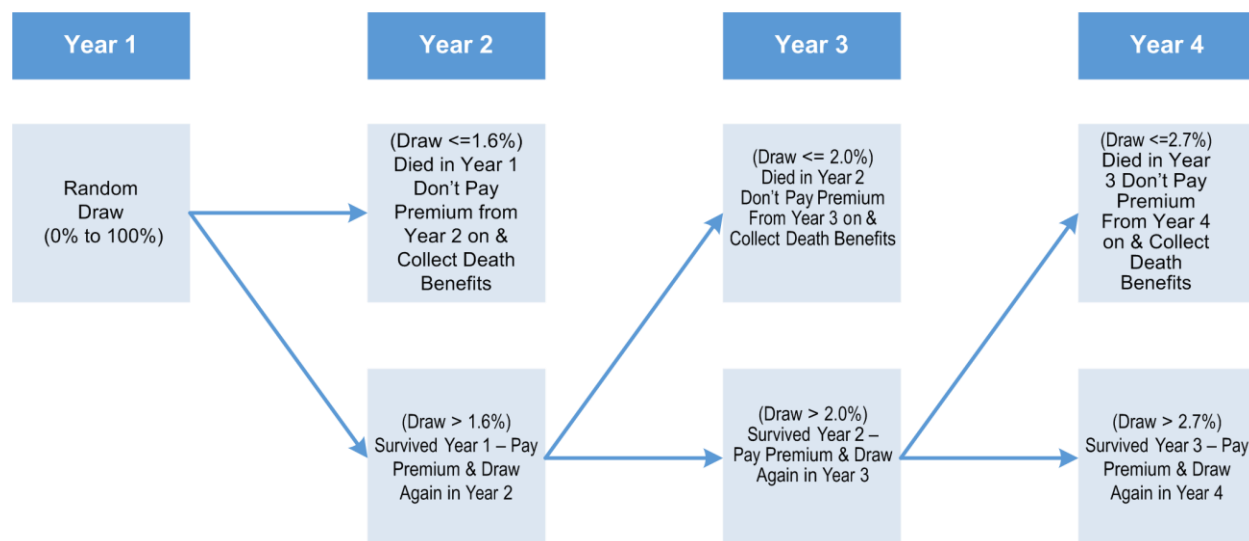
## Simulation Process

AM Best's LCSM includes the use of Monte Carlo simulations to generate cash flows for all policies after considering the Adjusted Mortality Matrix (the matrix of Adjusted Mortality Rates for each insured) and associated premiums and death benefits. As an illustrative example, the assumption is made that a 75-year-old insured male has a 1.6% probability of dying by age 76, a 2.0% probability of dying by age 77 (if he survives age 76) and a 2.7% probability of dying by age 78 (if he survives age 77).

In the simulation process, for the first year when the probability of the insured dying is 1.6%, AM Best draws a random number from a uniform distribution between 0% and 100%. If that random number is less than or equal to 1.6%, the insured is assumed dead, premium payments on the life are stopped (after the first year), and the death benefit is collected. If that random number is greater than 1.6%, the insured is assumed to be alive, the insured survives to the second year, and premium payments continue. In the second year, where the probability of the insured dying is 2.0%, a random number is drawn once again and either the person lives (i.e., the random number is above 2.0%) or dies (i.e., the random number is less than or equal to 2.0%). In the third year, where the probability of the insured dying is 2.7%, a random number is drawn once again and either the person lives (i.e., the random number is above 2.7%) or dies (i.e., the random number is less than or equal to 2.7%). **Exhibit C.6** shows the possible pattern of death or survival over a three-year period for this example.

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**Exhibit C.6: Paths of Death or Survival in the Simulation<sup>1</sup>**



<sup>1</sup> Assumes death occurs on the last day of the year of the random draw

The analysis is the same for a large portfolio of life settlements. For each trial in the simulation process, the model aggregates the cash flows (death benefits, premium payments, etc.) for a portfolio of life settlements and makes payments as prescribed by the transaction's waterfall. When cash-flow shortfalls occur and note payments are not made in full, the model records a default. The ultimate output of the model is the default rate — the total number of defaults for all trials divided by the number of trials. This default rate is then compared with *Best's Idealized Issue Default Matrix* found in the BILSM, which shows the default rate associated with each issue credit rating.

In general, the calculated default rate is associated with the rating on *Best's Idealized Issue Default Matrix* at the corresponding expected maturity of the securities. The life settlement asset class generally has a maturity profile that can be extended considerably by longevity risk and the risk of systematic mis-estimations of life expectancies by medical underwriters. For these reasons, AM Best expects the average maturity profile of life-settlement-backed securities to be longer than the corresponding measure in the typical long-dated, asset-backed securities transaction, which has more predictable cash flows.

## Possible Stresses and Scenarios

The following is a typical list of the stresses and scenarios associated with the analysis of a life settlement securitization:

- **Mortality Ratings** – stresses are applied in approximately the first five years of the transaction, especially if simulated near-term aggregate portfolio maturities are markedly higher than recent portfolio experiences as defined by the Annual Run Rate described in the “Transaction Surveillance” section of this criteria procedure

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- Premium Financed Policies – additional stresses on mortality ratings and/or reduction of death benefits due to the possibility of rescissions
- “Traditional” premium financed policies may be modeled as regular life settlements
- Mortality Improvements – increase in mortality improvement factors
- Premium Payments – increase in premiums due to the potential for increases in the cost of insurance and the possibility of incorrect optimization of insurance premiums
- Death Benefit Collection Lag – the time between death of the insureds and the collection of the death benefits may be changed based on historical trends
- Rate Increase – increase of the interest rates for unhedged floating-rate funding
- Investment Returns – a decrease in the assumed investment returns for the reserve account
- Insurance Company Defaults – increase in insurance company default assumptions and decrease in recoveries
- Rating of Liquidity Providers – the reduction in the ratings of liquidity providers
- Rating of Longevity Insurers – the reduction in the ratings of any insurers that provide longevity cover, if any
- Policy rescission by carriers and challenges by other parties
- Shortening of the Ratings Stability Period and Wear-Off Period
- Any additional stresses AM Best deems necessary based on the specific profile of the life settlement pool

### Summary of Qualitative Issues

In rating securities collateralized by life settlements, AM Best also considers issues that may not be directly quantifiable (some of which have been discussed earlier) but could have a significant impact on the rating of the transaction. Some of the issues AM Best considers in the analyses include, but are not limited to, the following:

- The infrastructure set up by the collateral manager to manage the transaction
- The track record of the medical underwriters as shown by actual to expected ratios verified by reputable actuarial firms
- How long the designated medical underwriters in the transaction have been providing life expectancies to independent third parties
- Whether the issuer (or its representative) has hired actuaries to help it understand mortality profiles on impaired lives of the elderly
- The extent to which attorneys have reviewed the sales documentation packages for each life settlement in the portfolio and are satisfied that they see no evidence of violation of the insurable interest tenet
- The qualifications of the servicer and its general ability to provide the services outlined in the legal documents

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- The existence of designated backups for significant service providers, such as collateral managers and servicers/tracking agents
- The extent to which the sellers of the policies know all the fees paid to all intermediaries in the transaction
- The ability and willingness of the issuer to provide accurate surveillance data on a timely basis for monitoring the transaction, including providing the annual audited report
- The ability and willingness of the issuer to reconcile the periodic data transmissions used in the surveillance of the transaction
- Whether the issuer has set aside reserves for legal expenses associated with legal challenges by insurance carriers and others
- Whether the issuer has set aside funds for additional re-underwriting in the future
- The quality of submitted data and the timely resolution of issues relating to remodeling/surveillance data

### Surveillance

There are three main elements of AM Best's surveillance of life settlement transactions: monitoring of the transaction's performance, periodic stochastic modeling of the transaction and deterministic calculations to measure the near-term liquidity available to maintain the transaction.

### Monitoring

To monitor life-settlement-backed securities, AM Best expects to review the following information on a monthly basis (unless another frequency is indicated):

- The date of death of any insured as shown on the death certificate
- The date each death was reported to the issuer
- The date each death benefit was collected, the amount collected and the remaining amount to be collected, if any
- The date of maturity of any policy matured due to other than death of the insured, and the associated reason for maturity
- On a quarterly basis, re-transmission of the death benefits, premium payments and other significant attributes of the transaction as indicated by AM Best's data template made available to the issuer. In addition, AM Best expects a reconciliation of the data elements transmitted that indicates the reasons for the changes in death benefits, premiums and other data elements as compared with the prior submission
- Any lapse notifications to the issuer
- Any challenges by insurers regarding the validity of the life settlements
- Remaining cash, reserve and note balances
- Cumulative premiums paid on premium financed policies
- Annual auditing report, if applicable

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- The liquidation proceeds of the life settlement (if sold)
- Any other data elements necessary for monitoring that AM Best may request in the future

### **Remodeling**

The transaction will be remodeled at least once a year, although there may be occasions when such remodeling is performed more frequently, such as when the portfolio's performance falls below expectations or the primary medical underwriter in the transaction substantively modifies underwriting standards. The portfolio cash flows at any given time will be compared with the most recent simulated cash flows. At the outset of the transaction, given that cash flows based on mortality can be extremely volatile (particularly for small, unhedged portfolios of life settlements), such comparisons may only be meaningful after six to 12 months have elapsed. As part of the remodeling process, AM Best will revisit assumptions made in its analysis to see whether there are significant changes in mortality (measured by lives and death benefits), premiums, investment returns, death benefit collection lags, insurable interest challenges by insurers, credit quality of insurers or other major factors that may impact the credit quality of the securities. Thus, the surveillance activities of a life settlement securitization are dynamic and AM Best may make appropriate adjustments to such assumptions and stress scenarios to reflect the then-current experience of the securitized portfolio or the additional knowledge gained by AM Best.

There may be occasions when AM Best asks the transaction's sponsor to provide new medical underwriting for the portfolio. The reasons for a request for new medical underwriting may include, but are not limited to, the following: 1) if the primary medical underwriter substantially revises its methodology for assigning mortality ratings or life expectancies; 2) if the maturities in the portfolio differ significantly from the modeled maturities; and 3) if more than five years have elapsed since the last medical underwriting of the portfolio.

### **Determining the Near-Term Liquidity Position**

Regardless of what the life settlement simulation model projects as the maturities, the rating of securities backed by life settlements also will depend on the portfolio's experience as it ages. Although AM Best will monitor the life settlement portfolios continuously for maturities, the portfolio's experience will be considered particularly important after the first and second years. AM Best will calculate the portfolio's Annual Run Rate to gauge the availability of near-term liquidity. Starting at or around the end of the first year, AM Best will calculate the portfolio Annual Run Rate as follows:

$$\text{Annual Run Rate} = (\text{Cumulative Death Benefits Over Prior 12 Months} - \text{Largest Single Life Death Benefit})$$

AM Best will assume that the Annual Run Rate is the annual expected portfolio maturities over a three-year period (with a modest increase or decrease of up to 10% per year, depending on the life cycle of the life settlement portfolio) and observe whether cash flows and cash reserves are sufficient to meet all expenses and keep all the policies in-force over the following three years.

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The Annual Run Rate will be calculated again at or around the second year of the transaction, except the formula from this period on will be as follows:

$$\text{Annual Run Rate} = (\text{Cumulative Death Benefits Over Prior 24 Months} - \text{Largest Single Life Death Benefit}) / 2$$

The Annual Run Rate once again is applied to the transaction over a three-year period to see if the transaction is still viable and all expenses are being met. The Annual Run Rate is then calculated at least every six months after the 24-month period, based on the preceding 24 months of maturities, to gauge the viability of the transaction over subsequent three-year periods.

AM Best will view the inability of a transaction to withstand the run rate (after the annual adjustments) over a three-year period as a credit negative.



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