

# RISKS ASSOCIATED WITH LIFE SETTLEMENTS HOLDINGS

## Overview

The fund holds [x] life settlement securities as at [reporting date], with a net asset value (“NAV”) of [y].

The value of these securities can be highly volatile and is dependent on certain key assumptions about how the future will unfold. In particular, those detailed below are key.

- ▶ **Longevity risk.** This is the risk that the mortality assumptions made are not borne out in practice and reference lives live longer than expected.
- ▶ **Credit risk.** This is the risk that the insurance companies issuing the life insurance policies are unable or unwilling to meet the death benefit payments of the insured lives as they fall due.
- ▶ **Operational risk.** This is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. For example, this includes the risk that premiums are not paid on time and thus the policy lapses, the risk of fraud and the risk that the insurance company increases the mortality charges (cost of insurance – “COI”) where possible.

These risks have been allowed for in setting a higher discount rate than the risk free rate.

In addition to the risks listed above, **liquidity risk** is also critical for the management of the [fund / company - delete as appropriate]. A liquidity statement is set out below.

For the risks noted above:

1. Actual experience may be different to expected.
2. New evidence may emerge requiring a significant change to the assumptions. If assumptions are changed the valuation of life settlement investments could change significantly from those shown in the accounts. Below is a table showing sensitivities to the key parameters for reference.

Note that the life settlement investments have been managed and valued consistently with the ELSA Code of Practice (dated xxx) and no material areas of non-compliance have been identified.

## Longevity risk

Assumptions are made about the future mortality of each reference life with consideration to both: (i) relevant population data; and (ii) specific information available for that reference life. “Longevity risk” is the risk that the mortality assumptions made are not borne out in practice and reference lives live longer than expected. The risk can be split into two sub-components being the mis-estimation of wider population mortality and variation between population and reference portfolio risk.

## 1) Mis-estimation of wider population mortality

All life settlements are underwritten individually. Underwriters provide life expectancies (“LE”) for each reference life. Depending on underwriter used, the LE can be considered to be – for a sufficiently large subpopulation of identical lives to the given reference life – one of the following:

- ▶ The time until 50% of the subpopulation is expected to have died (median).
- ▶ The average time until death for the subpopulation (mean).

For a given reference life, a higher LE reduces the value of the policy. This is because both inflows arising from death benefit will be delayed and future premiums are expected to be paid for longer. Note that, as documented in the sensitivities below, the valuation is highly sensitive to the expected future mortality rates and/or the actual future mortality rates.

The mis-estimation risk is the risk that the LE is too short. This could be wider population mortality or the mortality of specific subgroups such as older lives with higher than average wealth.

We note the following key past industry events on mis-estimation of LEs:

- ▶ In 2008 a number of the major underwriting firms announced retrospective increases to its LEs. AVS Underwriting LLC announced an increase of around 10%, 21st Services published the changes to their table, which suggests an overall increase of over 25% and ISC Services announced unquantified average increases.
- ▶ In November 2011, AVS Underwriting LLC announced a change to its underwriting practice to make an allowance for individuals taking statins. For lives taking statins, the impact is broadly a 15% reduction in mortality rates for below 80 years of age and 10% for 80 years of age or older.
- ▶ In January 2013, 21<sup>st</sup> Services, announced a further retrospective increase to its LEs of around 19% (on average).
- ▶ For all of above, we understand that these retrospective LE increases were based on changes in underwriting standards in light of own experience – that is to say that they were not due to changes in the original reference life-specific data.

## 2) Variation between population and reference portfolio risk

There is a risk that, for the small set of reference lives underlying the portfolio, there are less deaths than experienced compared to the wider population. This may arise for a number of reasons – some examples are included below for reference.

- ▶ The portfolio may have been specifically selected against as a result of the methods by which the underlying policies were sourced. For example, a very healthy life with the appearance of a poor past medical history may have been approached to sell its life insurance policy into the life settlement industry.

- ▶ Random fluctuations in experience may occur – in particular the sample size may not follow the “law of large numbers”.

## Credit risk

Credit risk is the risk that the insurance companies issuing the life insurance policies are unable or unwilling to meet the death benefit payments of the insured lives as they fall due.

## Operational risk

Operational risk is the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. A non-exhaustive list of such risks relating to life settlement holdings are premiums not paid on time and thus the policy lapses, the risk of fraud and the risk that the insurance company increases the mortality charges (cost of insurance) where this is possible. Increase of COI can lead to higher expected premiums, a reduction in value and an increased risk of liquidity issues and/or lapsation.

### 1) Possible COI increases, including implemented / announced increases

The following table summarises the carriers that have implemented an increase in the COI (i.e. the servicer has actually received notice of change) and carriers that have announced an intention to increase the COI.

Company (and Products, where applicable)	Implemented/ announced	Year of COI increases	COI increases (%)
Company A	[x]	[x]	[x]
Company B	[x]	[x]	[x]
Company C	[x]	[x]	[x]
Company D	[x]	[x]	[x]
Company E	[x]	[x]	[x]

The following table summarises the carriers that have announced that they are considering an increase in the COI and the carriers that have not announced considering an increase in the COI but, with reference to the breadth of the COI language in the original contract, have the capacity to do so in the future.

Company	Announced considering an increase (Y/N)	Death Benefit US\$000	Number of policies affected	Concentration (% of total portfolio)	Weighted average COI increase
Company A	[x]	[x]	[x]	[x]	[x]
Company B	[x]	[x]	[x]	[x]	[x]
Company C	[x]	[x]	[x]	[x]	[x]
Company D	[x]	[x]	[x]	[x]	[x]
Company E	[x]	[x]	[x]	[x]	[x]

The fund holds [x] life settlement securities as at [reporting date] where an increase on COI is possible. The securities have a NAV of [y] which represents [z%] of the overall life settlements portfolio.

## 2) Sensitivity to possible future COI increases

The fund holds [x] life settlement securities as at [reporting date] where an increase on COI is possible. An instantaneous prospective COI weighted average increase by [x%] has been applied to these life settlements. The impact of the prospective COI increase is a reduction in NAV of [y] which represents a decrease of [z%] of the NAV of the overall life settlements portfolio.

	Without COI increase US\$000	With COI increase US\$000
Expected death benefits	[x]	[x]
Life insurance premiums	[x]	[x]
Other costs <sup>1</sup>	[x]	[x]
NAV	[x]	[x]

## Liquidity risk

Liquidity risk is the risk that the life settlement investment encounters cash flow issues and has two principle sources:

- 1) Delay in receipt of death benefits from insurance companies coupled with insufficient funds to cover premium payments required to keep the policy in force. Reasons for delay in receipt of death benefits include mis-estimation of life expectancies, delays in tracking death events or disputed claims.
- 2) (for open ended funds) Redemption requests are higher than expected and cannot be made from an orderly sale of policies.

Given the illiquid nature of the market, it is likely that the valuation of the policies shown in the accounts would not be achieved should a large number of the policies need to be sold quickly into the market.

The following table sets out the net cash flow position by considering the inflows (death benefits) less outflows (premiums, other expenses) over the coming years under best estimate assumptions:

	Prior Year US\$000	Current Year US\$000
< 1 year	[x]	[x]
1 – 2 years	[x]	[x]
2 – 3 years	[x]	[x]
3 – 5 years	[x]	[x]
More than 5 years	[x]	[x]

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<sup>1</sup> These costs can consist of (but are not limited to) fees, commissions, expenses, costs of a liquidity facility and interest.

The following table sets out the net cash flow position by considering the inflows (death benefits) less outflows (premiums, other expenses) over the coming years under a stress whereby no death receipts are received for 2 years.

	<b>Prior Year US\$000</b>	<b>Current Year US\$000</b>
< 1 year	[x]	[x]
1 – 2 years	[x]	[x]
2 – 3 years	[x]	[x]
3 – 5 years	[x]	[x]
More than 5 years	[x]	[x]

### **Sensitivities**

	<b>Base Mortality</b>	<b>Mortality * 120%</b>	<b>Mortality * 140%</b>	<b>Mortality * 80%</b>	<b>Mortality * 60%</b>
NAV	[x]	[x]	[x]	[x]	[x]
	<b>Base Discount Rate (IR)</b>	<b>IR + 2%</b>	<b>IR + 4%</b>	<b>IR – 2%</b>	<b>IR – 4%</b>
NAV	[x]	[x]	[x]	[x]	[x]
	<b>Base Credit Risk (CR)</b>	<b>CR + 10bps</b>	<b>CR + 20bps</b>	<b>CR - 10bps</b>	<b>CR - 20bps</b>
NAV	[x]	[x]	[x]	[x]	[x]