ABSTRACT

This paper examines the nascent life settlement industry. It first provides background on the industry, reviewing its history and how it works. It discusses why it may be appealing to institutional investors, and explores in depth the myriad risks. Meketa Investment Group recommends that investors not invest in these strategies, due to the myriad risks involved and our belief that other illiquid asset classes offer better risk-adjusted return potential.

WHAT ARE LIFE SETTLEMENTS?

Life settlements are cash value life insurance policies sold by an insured individual ("the insured") to a third party ("the purchaser"). The insured may sell a policy for several reasons, such as a need for liquidity (i.e., cash) or an inability to continue paying the premium. Typically the insured receives a value larger than the policy's cash value, while the obligation to make the remaining premium payments is transferred to the purchaser, who ultimately receives the death benefit (i.e., the policy's "face value").

Life settlements usually involve older individuals (the average insured is age 80[1]) covered by universal life policies (it is estimated that between 85% and 95% of transactions are for universal life policies[2]), and with a face value (i.e., death benefit) of at least $500,000. The purchaser makes premium payments until the insured dies, at which point the purchaser receives the death benefit payment from the insurance company. The profit to the purchaser is equal to the difference between the purchase price and the death benefit, less premiums and administrative costs.

INVESTING IN LIFE SETTLEMENTS

Institutional investors can invest in life settlements via life settlement providers (managers), who construct pools of these policies on behalf of their investors in the form of an open or closed-ended vehicle. The pool may include from 10 to 100 or more policies. Policies are usually underwritten to achieve an IRR (internal rate of return) in the mid-teens, before fees. Returns will often exhibit an early negative return pattern, or so-called "J-curve," as premium payments tend to outweigh proceeds from death benefits in early years. A manager may also choose to sell (or buy) a policy in a secondary market.

Taking Advantage of the Insurance Structure

Historically, providing life insurance has been a profitable undertaking. By building very large portfolios, insurance company profits become fairly predictable due to the reliability of mortality projections over a large number of people.

A policy "lapse" occurs when a policy owner fails to make premium payments, thus ending coverage. Insurance companies build projected lapses into policy premia (a practice known

[1] Source: Mercer.
[2] Source: Mercer.

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as "lapse financing"). Consider that if a group of policies has a death benefit of $1 million, is expected to mature (i.e., pay the death benefit) in 20 years, and has a $50,000 annual premium, the expected IRR for the insurance company is 0%, since 20 years multiplied by $50,000 in annual payments equals the $1 million death benefit. However, if 7% of these same policies lapse each year,[3] the IRR increases to 7%.

If these same policies as in the above examples are purchased after five years for $200,000, the expected IRR for the investor would be 1%, since five years of payments have already been made, while the purchaser intends to make premium payments and collect the eventual death benefit. Importantly, the purchaser can take advantage of information that the insurance company does not possess, such as earlier expected mortality. If these same policies are purchased at the same date and price (after five years for $200,000), but the death benefit is now expected to be paid in seven years instead of fifteen years (information known to the purchaser, but not the insurance company at the time pricing is set), the expected IRR for the buyer would be 12%.

It is through selective, informed (employing "proprietary" information) purchasing of policies that would otherwise lapse that the life settlements investor is able to appropriate profit that would otherwise accrue to an insurance company - providing the investor is able to keep the policy in force by making premium payments.

History of Investing in Life Settlements

In 1911, the Supreme Court of the United States ruled that life insurance policies are "assets that can be bought or sold," which allows them to be legally transferred to third parties. Viatical settlements, the precursor to life settlements, were invented in the 1980s primarily to meet the needs of policy owners that were terminally ill (e.g., HIV/AIDS patients) who wanted immediate access to cash. In 1995, legislation was passed to exempt viatical death benefits from federal income tax. As the industry grew and expanded beyond viaticals, the industry started to adopt formal business practices.

By 2007, the industry had become 95% life settlements as the secondary market for life settlements grew. In an effort to prevent fraud and other unseemly practices,[4] many states regulate viatical and life settlements. For example, most states prohibit life settlement transactions for the first two years after a policy is taken out. As of 2012, Life Settlement legislation has been passed in 41 states.

In 2009, AIG became the first company to successfully securitize a pool of life settlement policies (the securitization involved 3,400 policies with $8.4 billion of death benefits).[5] However, securitization of life settlements has not grown as originally expected, and 2009 to

[3] According to the ACLI Fact Book, between 5.1% and 8.3% of policies lapsed per year from 1998 through 2008.

[4] Many states prohibit transactions whereby a life insurance policy is purchased by a third party on an individual on whom they have no insurable interest (i.e., they are not an appropriately related party). This is referred to as Stranger Originated Life Insurance (STOLI).

[5] Source: The Wall Street Journal (2011). The concept is similar to when banks bundle mortgages together to form mortgage-backed securities, except in this case AIG pooled several hundred life-insurance policies into a security.

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2010 marked a nadir in the growth of the market.[6] In 2010, two large players, Goldman Sachs and Invescor, exited the life settlement market altogether due to lackluster conditions and a dearth of growth. Goldman had developed a mortality index (QxX) and related derivative products, so its departure was particularly significant.

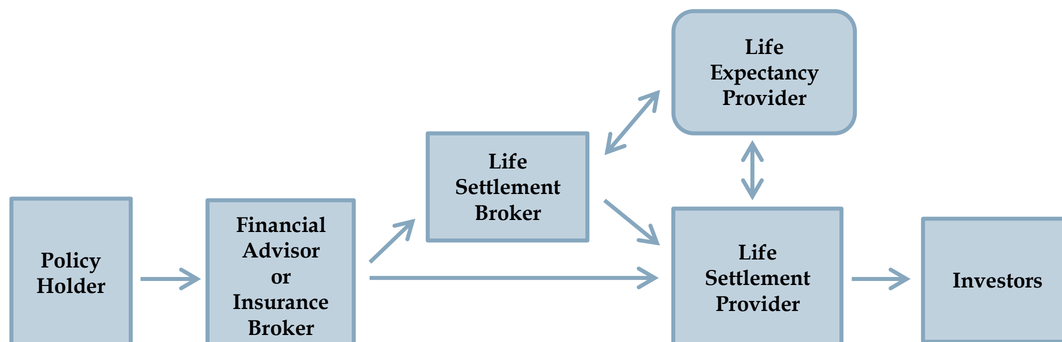
From mid-2010 through early 2012, the volume of life settlement transactions recovered, though estimating the size of the market is difficult. The Life Insurance Settlement Association estimates the size of the market at $16 billion. Today, investors in the life settlement market consist primarily of pension plans, high net worth investors, and large banks.

How a Typical Transaction Works

Most life settlement transactions take four to six months to complete. While each transaction is different, they generally follow some variation on the following process.

First, an insured talks with a financial advisor or insurance broker and decides to sell his insurance policy. Next, the financial advisor approaches a life settlement broker with the proposed transaction. The policy holder provides an application, which usually includes his medical records, to the settlement broker. The life settlement broker provides this information to a life expectancy provider, who provides the broker an estimate of the insured's life expectancy. The life settlement broker seeks offers from multiple life settlement providers, and presents their bids to the seller. Once the offer is accepted, the life settlement provider uses funds from its investors to purchase the policy and to make its premium payments.

Because some life settlement providers are also licensed as brokers, the intermediation role (and costs) of the broker are cut out in some cases (see the diagram below). Further, some life settlement providers may forego interaction with the life expectancy providers, relying instead on their own projections.



Performance

As mentioned before, when life settlement managers purchase policies, they are usually doing so with an expectation of achieving a mid-teens IRR, on average. However, there is very limited data available on the actual performance of life settlement funds. While there

[6] The Amrita Life Settlement index, which tracks volume, hit a record low in March 2010.

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are two indices that cover life settlements as of 2012,[7] they have brief histories and we do not believe they are representative of the opportunity set available to investors. Hence, there is insufficient data to draw meaningful conclusions about the return behavior of life settlements.

Importantly, there is no economic or fundamental reason why life settlement returns would be correlated with those of the broad capital markets. Changes in interest rates, inflation, credit availability, and economic growth should have no impact. Rather, performance will be driven in the short term by changes in life expectancy and in the long term by the difference between life expectancy and actual mortality. *Hence, life settlements should be uncorrelated with the rest of an institutional investor's portfolio*.

POTENTIAL RISKS OF LIFE SETTLEMENTS

Below, we review the primary risks of investing in life settlements, focusing on the risks that are distinctive to this market.

Legal Risk

When an insured individual dies, the insurance company determines if the policy owner of has a legal claim to the death benefit (usually, this requires an insurable interest). This is driven by state law, so the manager of life settlement funds must be able to contest any legal challenges. Usually, this results in the delay of payments and added legal costs, thus lowering the IRR.

Liquidity Risk

Life settlement policies, as well as the portfolios that are composed of them, are illiquid. There is no publicly traded market as there is with stocks and bonds. Hence, investors who would need to execute a rapid sale of one or more policies would find limited buyers and would likely be forced to sell at steeply reduced prices.

Depending on the fund structure, investors may find that their capital could be tied up for period of ten years or more. While open-end funds often offer the promise of quarterly liquidity, a large redemption request by one or more investors would likely lead to redemption queue or "gate," similar to that enforced by many hedge fund and open end real estate managers in 2008 and 2009. As with most private market funds, a closed-end fund usually has a term of ten to twelve years plus potential extensions with no provision for interim liquidity, though distributions (in this case, from maturing policies) would be expected along the way.

Cash management of a life settlements portfolio is crucial because if the fund is unable to make insurance premium payments, the policies are considered "surrendered." Many life settlements strategies have been unsuccessful because they poorly manage longevity risk

[7] The two indices are the Amrita Life Settlement index and the AA-Partners Life Settlement index. The first tracks trading volume of policies, not performance, while the latter tracks performance for open-end funds only. Note that both indices last reported data in February 2012.

and fail to maintain sufficient cash to make premium payments. Using leverage to finance the purchase of policies dramatically increases this risk.

Counterparty Risk

Any insurance policy involves counterparty risk in the form of the potential for the issuing insurance company to fail. If an insurance company has insufficient reserves it may become insolvent. Such failures are rare, but they do happen, and they are more likely to occur during periods of systemic risk in the financial markets, which may coincide with downturns elsewhere in an investor's portfolio. Policies are still honored in the receivership process, though they cannot be traded and payment may be delayed for an extended period.

Regulatory Risk

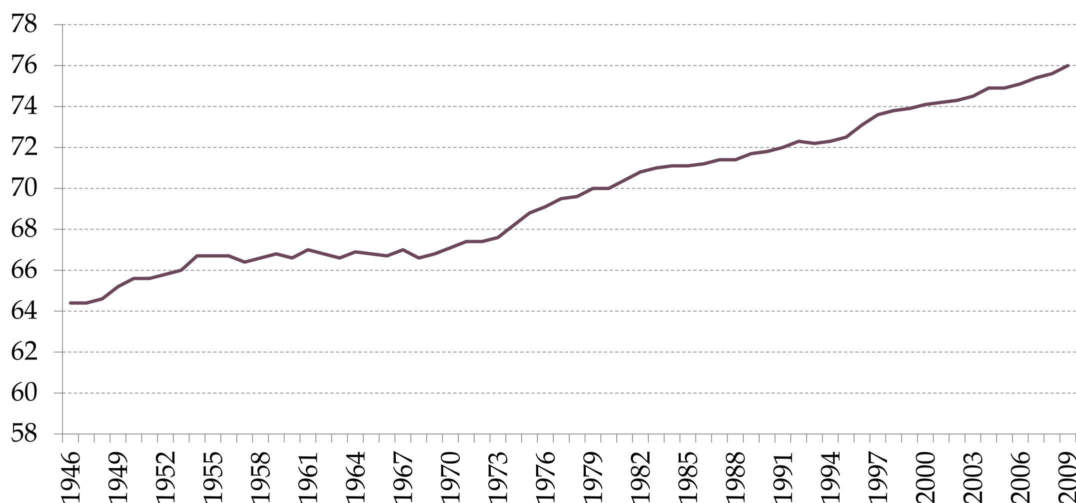
Life settlements are regulated at the state level, and significant legislation related to the sale of life insurance policies has been passed over the past decade. Most of this legislation has been beneficial to the industry. However, changes in tax or insurance law could significantly alter the supply of or demand for life settlements.

Longevity Risk

If individuals live longer than expected, the manager must continue to make regular insurance premium payments, thus reducing the strategy's returns. *This is the key risk for life settlement investments.*

Improvements in medical science and related fields have increased life expectancy significantly over the past century (see the following chart[8]). Future changes in life expectancy will have a meaningful impact on life settlement investors.

Male Life Expectancy at Birth in the United States
1946 - 2009



[8] Source: CDC National Center for Health Statistics.

The valuation of life settlement policies often lacks transparency, and there is no single, consistently applied method. Managers use different metrics that rely on many subjective assumptions. However, life expectancy is the primary component of valuation models. The Society of Actuaries publishes a mortality table called the Valuation Basic Table (VBT) that serves as the standard for the industry. This table is updated every five to ten years. When it was last updated in 2008, life expectancy increased more than anticipated (see the following table). As a result, many life settlement funds recorded significant losses, as they revised their models to reflect the new data. The next revision to VBT is due in 2014.

Impact of Revisions to the Mortality Tables[9]

Age	Life Expectancy (in years) 2001 VBT	Life Expectancy (in years) 2008 VBT	% Increase
65	20.0	21.9	10
70	16.7	18.1	8
75	13.9	14.4	4
80	10.7	11.1	3

Revisions to life expectancy will have a temporary impact on performance. However, increased longevity would permanently impair performance. One study showed that a twelve-month increase in life expectancy translated to a 320 basis point decrease in IRR (see the following table).

Impact of Changes in Life Expectancy on Performance[10]

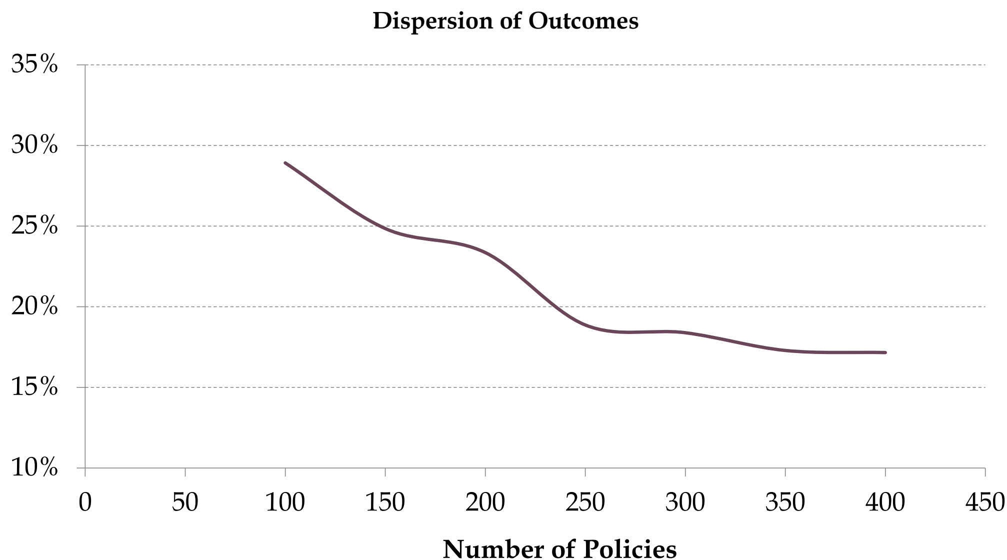
Increase in Life Expectancy (months)	Internal Rate of Return (%)	Decrease in Internal Rate of Return (bp)
0	12.4	0
6	10.7	170
12	9.2	320
18	7.8	460
24	6.5	590
30	5.3	710
36	4.3	810

Finally, it is important for Trustees of defined benefit plans to understand that longevity risk already represents one of the largest risks to most pension funds. If a pension plan's beneficiaries, on average, live longer than expected, the costs of paying future benefits increases, and the current funded ratio decreases accordingly. Hence, a pension plan that invests in life settlements is increasing their risk of the broad population living longer, healthier lives. Essentially, this represents a bet against the long-term advance of medical science, a position that would have been a poor choice over the past century.

[9] Source: Society of Actuaries. Data is for Male non-smokers.
[10] Source: AM Best. Study was conducted on a pool of 150 policies.

The Importance of a Diversified Pool

Diversifying a life settlements portfolio is important because this mitigates longevity risk. The portfolio should diversify by medical condition, number of policies, and counterparty (i.e., insurance company). AM Best has found that a portfolio of no fewer than 300 policies is optimal, with no single policy composing more than 1/30th of the portfolio. A study by the Insurance Studies Institute also showed that volatility levels off at around 300 policies (see the following chart).[11]



NOT QUITE AN INSTITUTIONAL MARKET

The size of the life settlement market pales in comparison to most institutional asset classes (see the following table), since institutional investors have only recently started allocating capital to life settlements. Hence, institutional practices have not yet permeated the industry. Important among these is the absence of independent custodians working for investors, not the managers.[12] Consequently, headline risk and fraud is more likely than in other asset classes. In what remains a small universe of life settlement managers, there were three high profile cases of fraud in 2011 and 2012.[13]

Market	Life Settlements	U.S. Stocks	U.S. Bonds	Private Equity	Hedge Funds
Size ($bil)[14]	16	21,400	37,000	2,000	3,400

[11] Source: Insurance Studies Institute, "The Effect of Life Settlement Portfolio Size on Longevity Risk," August 2008.

[12] Third party pricing is common and offered by groups like Duff & Phelps, Deloitte and Touché, Sterling and Ernst & Young. These pricing agents are generally paid by the fund manager.

[13] The U.S. Department of Justice and the SEC filed suit or convicted three firms during this period: A&O Resource Management, Life Partners, and Stanley, Inc. See *http://www.justice.gov/opa/pr/2011/June/11-crm-765.html*, *http://www.sec.gov/news/press/2012/2012-2.htm*, and *http://www.sec.gov/litigation/litreleases/2011/lr22082.htm*.

[14] Sources: Life Settlement Insurance Association, Bloomberg, SIFMA, TheCityUK, Hedge Fund Research.

MANAGER CONSIDERATIONS

We estimate that there are fewer than a dozen "institutional quality" managers of life settlement portfolios. And, there is insufficient performance history to draw meaningful conclusions. To date, closed-end funds have not raised sufficient capital to build well-diversified portfolios.

Management and related fees are high. For closed-end funds, they resemble those for private equity (e.g., 2, 8, and 20). For open-end funds, they resemble those for hedge fund strategies (e.g., 2 and 20). Some managers may also charge an acquisition fee when they purchase policies, or pass along other related costs to their investors.

Because the market is young, certain inefficiencies may be exploited by savvy life settlement managers. Managers who are also licensed as brokers and able to perform detailed due diligence beyond considerations such as life expectancy may have a competitive edge in bidding for policies. Also, supply and demand in the market, and hence policy pricing, may vary from year to year; an experienced manager may be able to discern trends. A nascent secondary market allows for limited trading of policies among managers, and more experienced managers should have an advantage in transacting in this market.

Finally, through portfolio construction or their business practices, managers may add to or mitigate (e.g., via diversification) the risks listed earlier. For example, some managers use leverage (i.e., finance a portion of their policy purchases with debt) to enhance expected returns. However, this dramatically increases the risk of the portfolio, especially if policies mature later than expected and there is insufficient cash to continue paying premiums and to service the debt (i.e., make the regular loan payments).

SUMMARY

Life settlements occur when a life insurance policy is sold by an insured individual to a third party. Life settlement managers construct pools of policies on behalf of investors. The current structure of the insurance market provides an economic inefficiency. Providing that life settlement managers are able to acquire unique information about the life expectancy of insureds, life settlements have the potential to produce mid-teen returns. The strategy's appeal is its high and uncorrelated potential returns, making it a potentially valuable diversifier for a pension fund.

The primary risks associated with life settlements are legal, longevity, liquidity, counterparty, and regulatory. Of these, longevity risk is the largest known risk. Some life settlement managers' practices may add to this list of risks, as instances of fraud have been documented. It is therefore imperative that a manager be properly evaluated and the underlying portfolio be prudently constructed and managed. Capable and well-resourced managers may be able to outperform their peers in what remains an immature market.

The life settlement market is not fully formed and is illiquid. Its relative inefficiency provides some potential rewards, but many risks for investors. If an investor is willing to forego liquidity, there may be other asset classes (e.g., private equity) that better help them meet their goals without taking on the unique risks of this nascent investment strategy. Pension plans in particular should consider the increase in longevity risk when deciding if and how much to invest in life settlements.

Glossary of Terms

Contestable Period - The period during which an insurance company can challenge a claim on a life insurance policy, usually the first two years after issue. This allows insurance companies to investigate claims and deny those that are fraudulent.

Insurable Interest – In order to be the owner and beneficiary of a life insurance policy, there must be some relationship to the insured person (e.g., family member, key employee) Insurable interest is not re-tested after a policy is issued, allowing the transfer (sale) of policy ownership.

Life Expectancy - An actuarial-based estimate of how long an individual is likely to live. This estimate is usually based on population-wide data and then customized for the medical condition and history of the individual.

Life Expectancy Providers – Companies that specialize in providing life expectancy estimates. The three most commonly used providers are AVS Underwriting, 21st Services, and Fasano Associates.

Life Settlement - A financial transaction in which a policy owner possessing an unneeded or unwanted life insurance policy sells the policy to a third party. The purchaser becomes the new beneficiary of the policy at maturation and is responsible for all subsequent premium payments.

Life Settlement Providers - Companies that purchase life insurance policies in the secondary market through life settlement transactions, often on behalf of their clients (i.e., investors).

Longevity - See Life Expectancy.

Mortality Table - A table that provides life expectancy estimates for various demographic groups.

Policy Owner - The person or entity who owns the policy, is responsible for its payments, and has the authority to both sell the policy and designate its beneficiaries.

Stranger Originated Life Insurance (STOLI) - A life insurance policy purchased by a third party on an individual in whom they have no insurable interest (i.e., they are not an appropriately related party).

Universal Life Insurance - A flexible-premium life insurance contract that accumulates value (i.e., a cash balance), has no defined term, and pays a death benefit. The policy owner can choose the policy's premium and face amount, and can adjust these as long as the policy is in effect. Universal life policies usually have an end date between ages 105 to 110, though this can often be extended.

Valuation Basic Table (VBT) - The set of mortality tables most commonly used in estimating life expectancy and hence pricing individual insurance policies. It is prepared by the Society of Actuaries and updated every five to ten years.

Viatical Settlements - The sale of a life insurance policy by a terminally ill person who usually has a life expectancy of less than two years.