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Master of Arts in Accounting and Finance (MaccFin)

Master's Thesis

How to Make Life Settlements Attractive to a Wider Range of Investors, in Particular Insurance-Linked Securities Funds.

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Abstract

In the secondary market for life insurance, financial investors purchase life insurance policies of those people who do not need their life insurance coverage anymore. Such transactions are termed life settlements. ILS managers are a highly specialized group of asset managers who are dedicated to invest in insurance-linked securities. Although life settlements belong to the asset class of insurance-linked securities, ILS managers have hardly considered investments in life settlements so far. The aim of this paper is to evaluate the reasons for this phenomenon and to find out what needs to change in the market until life settlements could become eligible for ILS manager. For this purpose, interviews with ILS managers were conducted. Subsequently, life settlement providers were challenged with the four main issues noted by the ILS managers and their points of view were sought. It turns out that ILS managers have quite a negative opinion about life settlements: the non-transparency in the market, in particular, is a hurdle for making investments. To put it specifically, the four main issues are the inaccuracy of medical underwriting, non-seriousness on the part of market participants, bad reputation and the non-alignment of interests. The survey among life settlement providers resulted in a substantial agreement of the providers with every issue noted by the ILS managers. In conclusion, the industry has to improve pricing, solve the black sheep problem, and refurbish the reputation of life settlements in order to make the asset class attractive to the ILS manager. A/E-Ratios of medical underwriters need to be published and market data should be available. Black sheep have to be weeded out of the market by educating policyholders as well as investors, and fee structures have to be introduced which align the interests of the sell side with the interests of the investor. Also, the bad reputation has to be improved through independent research and reports of academics, auditors or regulators.

Acknowledgement

I wish to express my sincere gratitude to Beat Hess from AA-Partners for his support throughout my Master’s thesis. He also provided the contacts to all ILS managers and life settlement providers interviewed. In addition, he gave me the scope to successfully present the results of my thesis at the International Life Settlement Investors’ Conference 2015.

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List of Abbreviations

AIFMD: Alternative Investment Fund Managers Directive

A/E-Ratio: Actual-to-Expected Ratio

BVZL: Bundesverband Vermögensanlagen im Zweitmarkt Lebensversicherungen

CSV: Cash surrender value

HFRI: Hedge Fund Research Indices

ILMA: Institutional Life Markets Association

ILS: Insurance-linked securities

IRR: Internal rate of return

LE: Life expectancy

LISA: Life Insurance Settlement Association

LS: Life settlements

LSP: Life settlement provider

NAV: Net asset value

SD: Standard deviation

STOLI: Stranger-originated life insurance

USD: US Dollar

VBT: Valuation Basic Tables

1 Introduction

In the secondary market for life insurance, financial investors purchase life insurance policies of those people who do not need their life insurance coverage anymore. On buying the insurance contract, the investor becomes the new beneficiary, and receives the associated payoff as soon as the death of the insured occurs. Traded life insurance policies are termed "life settlements" and belong to the asset class insurance-linked securities (ILS). Generally, these are financial instruments that transfer insurance risks to the capital markets (Cummins & Trainar, 2009). The majority of insurance-linked securities is managed by a highly specialized group of asset managers, who are dedicated to investing in insurance-linked securities. These ILS managers offer ILS investment funds with a special focus on institutional investors. Although life settlements are part of the dedicated asset class of ILS managers, they have hardly considered making investments in life settlements so far. Thus, ILS managers invest in all different types of insurance-linked securities, such as catastrophe bonds, extreme mortality swaps, longevity swaps and even in terror bonds, but they keep away from life settlements.

This surprising fact is the core of this paper and turns up again in the three main goals of the thesis. The first one is an evaluation of the reasons why ILS managers do not invest in life settlements. The second goal is to find out what needs to change in the market until life settlements could become eligible. For this purpose, interviews with ILS managers were conducted. Thus, these two objectives focus on the view of ILS managers who are outsiders to the life settlement industry, and might lack knowledge about the industry. Therefore, the third goal is to challenge industry insiders with the issues noted by the managers, and to compare the views of the two sides. For this purpose, life settlement providers, who act as middlemen in between the policyholder and the investor, were surveyed by means of a questionnaire. In this way, the paper will provide suggestions for improvement, so as to make the life settlement market more attractive to ILS managers as well as all other investors interested in trading life insurance policies.

The paper is separated into three main parts: a theoretical part, an empirical part and the final conclusion. The theoretical part starts by describing the current state of the life settlement market and explaining possible ways to invest in life settlements. Afterwards, the asset class insurance-linked securities will be presented, with a focus on the role and size of dedicated ILS funds. To conclude the theoretical part, benefits and risks of an investment in life settlements as well as possible needs for improvement in the market will be pointed out. In this analysis, the author will try to adopt the perspective of an ILS manager, since the results of the chapter are used as the basis for formulation of the interview questionnaire. The empirical part is separated into the survey among ILS managers, the survey among life settlement providers, and a final interpretation. Corresponding to the theoretical analysis, the first chapter shows benefits, risks as well as the need for improvement in the life settlement market from the viewpoint of the ILS manager. The second chapter lists the views of life settlement providers on four critical issues announced by the managers. Whereas these two chapters simply report the results of the surveys, in the third chapter the results will be interpreted, and similarities and differences between the two groups will be pointed out. This comparison results in the final section of the empirical part, which makes suggestions for improvement in order to make the life settlement market more attractive to ILS managers. Finally, in the conclusion the main findings of the paper are summarized.

2 Theoretical Part

2.1 The life settlement market

According to Kohli (2006), a life settlement is a transaction between the policyholder of a life insurance and an independent third party. Hence, the life settlement market is the secondary market for life insurance.[1] The policyholder sells his[2] life insurance contract to the independent third party, called the life settlement provider, who typically resells it to a financial investor. The investor becomes the new beneficiary of the policy while the insured individual remains the same. The price of the policy exceeds the cash surrender value offered by the primary insurer, but falls short of the face value of the policy, better known as the death benefit. This allows the investor to earn a positive return. Subsequently, the investor pays the insurance premiums until the death of the insured individual occurs, and the investor receives the death benefit (Braun, Gatzert, & Schmeiser, 2012).

2.1.1 Traded life insurances in the United States

Secondary markets for life insurance exist not only in the United States but also in Germany and the United Kingdom, and to a minor degree in Japan and France as well. However, owing to the size of the primary market, the legal environment and characteristics of the outstanding policies, the secondary market of the United States is the most important (Gatzert, 2010). Therefore, only the US life settlement market is part of the following analysis.

2.1.1.1 History and current state of the market

The court case “Grigsby vs. Russell” in 1911 laid down the basis for today’s life settlement market, as the US Supreme Court ruled that life insurance policies are an asset and its ownership can, therefore, be transferred to any other individual. Thus, one becomes the legal beneficiary of the death benefit, although this indicates that the insurable interest is not given anymore (Evans, Russell, & Sager, 2013). However, there was little trading in the secondary market for life insurance until the AIDS epidemic broke out in the 1980s. In order to pay the bills of medical treatment, the patients were in need of quick money. The second-

[1] However, the LS market also includes the tertiary market for life insurance.

[2] For the sake of simplicity the masculine form is used throughout this paper, but should be taken to refer to persons of both genders.

ary market allowed them to sell their life insurance policies. In this way, the patients not only obtained the sales prices, but also rid themselves of the duty to pay the premiums to keep the policies active (LISA, 2015). Since the AIDS patient had a relatively short remaining life expectancy, the actuarial value exceeded the cash surrender value by a multiple. This original form of the secondary market for life insurance became known as viatical settlement. In such a transaction, the policyholder is terminally ill, and has - by definition - a life expectancy of less than 24 months (Evans, Russell, & Sager, 2013). Although viatical settlements could represent a mutually beneficial transaction, its popularity was short-lived. In the late 1990s, the number of transactions in the viatical settlement market rapidly shrank after cases of fraud emerged and medical treatment, especially for AIDS patients, improved (Kohli, 2006). As a consequence, the life expectancy of the policyholder increased suddenly, to the detriment of the investors' returns. Owing to reputational risks and difficulties in the valuation, the share of viatical settlements of the total secondary market is under 5% today (AA-Partners, 2014b).

Table 1: Viatical settlements vs. life settlements

	Viaticals	Life settlements
Policy Size	< $ 100,000 and usually between $ 25,000 - $ 50,000	> $ 100,000 and usually over $ 250,000
Policyholder	AIDS Patients in the age band of 25 – 44 years	Senior citizens over the age of 65 years
Life Expectancies	< 2 years and usually 12 months or less	> 2 years and as high as 12 – 15 years

Source: Author's illustration, based on Deloitte (2005)

At the same time, secondary market participants discovered the desire of seniors in the United States to exit their unneeded life insurances. The purchases of such policies became known as life settlements (LISA, 2015). In contrast to the viatical settlement market, target policyholders in the life settlement market are not terminally ill, but still have a medical impairment. Thus, policyholders have a life expectancy of above 24 months and it can be up to 15 years. The major differences of these two asset classes are summarized in Table 1.

After emerging at the end of the 1990s, the life settlement industry, measured in terms of the face value of policies purchased, initially experienced moderate growth. However, life settlement providers are not obliged to report transactions to an authority, so that no incontestable verified market data exists. Nevertheless, there are various studies estimating the market size; these are summarized in Figure 1. According to Kamath (2006), life insurances with a total face amount of 2.5 billion USD were purchased on the secondary market in 2003. Subsequently, life settlements experienced a strong growth until 2008. Both studies by

BVZL and by Conning estimate that the life settlement market peaked in 2008, with roughly 12 billion USD of total face amount purchased. This growth was driven by the demand side. In particular, institutional investors sought uncorrelated investment returns and raised a substantial amount of capital for life insurances. Stronger growth of the market was mainly limited by consumer education and policy availability (Conning, 2007). In the years 2004 to 2007, in order to take advantage of the huge demand for life settlements, brokers/providers not only bought the policies of heavily impaired, but also of slightly impaired or even unimpaired policyholders. But medical underwriters had little experience of such policyholders, so that the LE estimates were way too short (interviewee No. 5, 2015).[3]

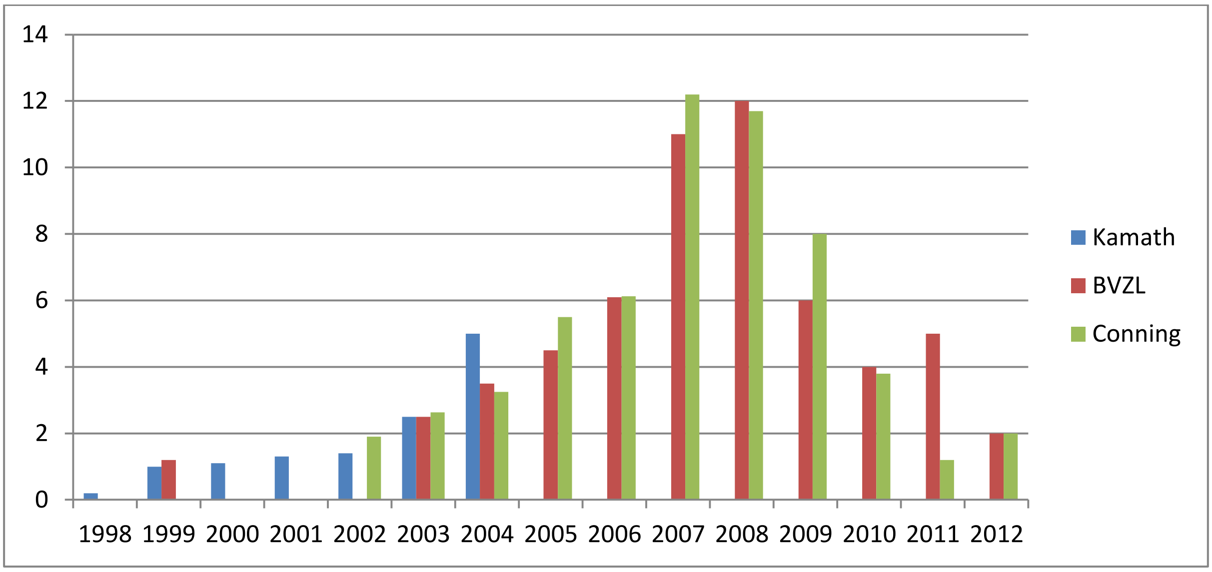

Figure 1: Development of life insurance face values settled per year (billion USD)

Source: Author's illustration, based on Kamath (2006), BVZL (2013), Conning (2007, 2008, 2009, 2010, 2012)

The outbreak of the financial crisis in 2008 immediately halted the steady market growth. Owing to the nature of the life settlement market, the industry was hit hard by the freeze in the credit markets. Before investors receive any return from their life settlement policies, they need to spend a significant amount of money on premiums, as annual premiums cost 5% to 10% of face value and death benefits are usually not paid out within the first three years (U.S. Securities and Exchange Commission, 2010). Consequently, with the beginning of the crisis, life settlement investors ran into difficulties to finance premiums for policies that were in force. Moreover, investors realized that the mortality was much lower than projected, and the anticipated death benefit payments did not occur. At the same time, major medical underwriters revised their methodologies, so that the valuation of the existing portfolio had to be revised and policy prices on the tertiary market collapsed (Conning, 2009; interviewee

[3] Owing to privacy reasons, the name of the interview partner providing this information cannot be published.

No. 5, 2015). Thus, Conning (2010) estimates that the face value of the new policies purchased decreased by more than 30% in 2009 compared to 2008, and by even 90% till 2011. However, the market size for 2011 significantly differs from the figures assessed by BVZL (2013).

But the life settlement market seems to have recovered from this huge downturn. In 2012 as well as in 2013, the purchased amount of face values increased, as the low interest rates environment forced investors to search for alternative investments (Conning, 2014). And there are developments in the market that make further growth reasonable. On the one hand, the face value of in-force life insurance policies has steadily increased during the past few years (ACLI, 2013) and, according to the US Census Bureau (2012), the number of US citizens in the target age for life settlements (over 65 years) will double by 2050. One reason, therefore, is that baby boomers have started reaching their retirement age these days. On the other hand, the increasing tertiary market for life insurance has improved the liquidity of life settlement investors (Conning, 2014).

2.1.1.2 Characteristics of target policyholder and policies

As described in the previous section, target policyholders in the life settlement market are senior citizens above the age of 65 years who have a medical impairment and do not need their life insurance anymore. Mostly, the reason why these policyholders want to sell their insurance is not a lack of cash, as in the case of viatical settlements. Rather, the beneficiary of the policy, most commonly the spouse or the child of the policyholder, does not require the financial protection any longer. This could be the case if the policy-owner gets divorced, or outlives the intended beneficiary (Blake & Harrison, 2008). Furthermore, there might have been a change in the estate of the policyholder, so that no financial bottleneck can occur any more for the beneficiary. The opposite may also be true: paying the premiums may have become unaffordable, so that the policy is in danger of lapsing (Ingraham & Salani, 2004).

In case one of these reasons actuates a policyholder to get rid of his life insurance, the main options are letting the policy lapse, surrendering it to the life insurance company or selling it on the secondary market (Kohli, 2006). If the policyholder chooses to let it lapse, he will lose his insurance coverage and will receive nothing. In case of surrender, the individual gets paid the cash surrender value set by the primary market (Kohli, 2006). The CSV gets determined at the date of issuance of the policy and is based on the assumption that the policyholder has a normal health status (Deloitte, 2005). Thus, only if the individual's health status is normal, the CSV is actuarially fair and reflects the policy's true economic value. In contrast to that, the value received on the secondary market (the third option) depends on the actual health status of the policyholder. In case of impaired health, the present value of the premium payments falls and the present value of the death benefit rises, since the death of the policyholder is expected to occur earlier. Therefore, the true economic value is higher than the CSV (Doherty & Singer, 2002). Life settlement companies take this into account and can offer a purchase price to the policyholder that lies in between. Hence, purchasing policies of medically impaired individuals represents a business opportunity which, at the same time, is also beneficial for the policyholders.

The target policies of life settlement companies are universal and whole life insurances with fixed death benefits. In contrast to term life insurances, these policies do not have fixed terms, but last lifelong. Therefore, the death benefit payment is guaranteed, and only the payment date is uncertain (Gatzert, 2010). With a share of 80% to 85% among all purchased policies on the secondary market, universal life insurances are, by far, the most important segment (LPD, 2007, quoted in Braun, Gatzert & Schmeiser, 2012). Life settlement investors appreciate the fact that these contracts exhibit flexible premiums in terms of time and amount of premium payments.[4] However, the premium level of whole life insurances is constant (Blake & Harrison, 2008). According to Chapter 2.1.1.1, the face value of purchased policies is usually over $ 250,000, and life expectancies of the policyholders are at least two years. In fact, the average face value of life settlements purchased in 2014 was USD 1,648,000 and the average life expectancy was seven years. Figure 2 shows the distribution of these two values in the year 2014 (AA-Partners, 2014a).

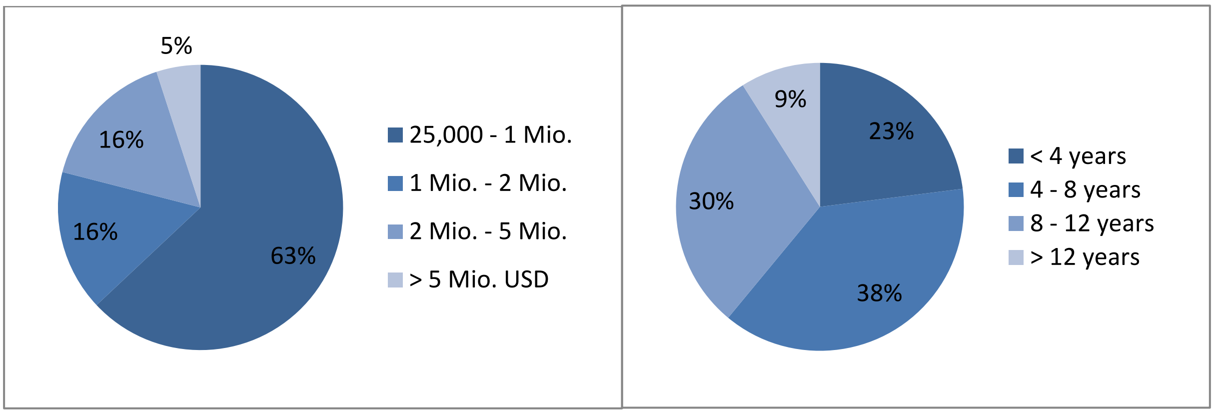

Figure 2: Distribution of face values and life expectancies of traded life settlements Jan–Nov 2014
(expressed in number of trades)
Source: Author's illustration, based on AA-Partners (2015)

[4] However, this flexibility only applies as long as the policyholder's reserves stay positive (Gatzert, 2010).

2.1.2 Transaction process

The typical transaction process of a life settlement is illustrated in Figure 3.[5] The transaction process starts with the *policyholder*'s interest to sell his life insurance contract. Since they are usually not familiar with life settlements, the first point of contact is typically the life insurance agent who has originally sold the policy to the insured. Afterward, in order to represent the financial interests of the policyholder in the best possible manner, the agent gives a specialized *life settlement broker* the task of selling the policy (BVZL, 2013). One of the benefits of specialized brokers is their large network of life settlement providers (also known as life settlement companies). By requesting quotes for the policy from different providers, they are able to create an auction-like environment, so that a competitive price can be achieved. In this way, brokers represent the interests of the selling side, whereas providers represent the buying side (Frith & McNealy, 2006).

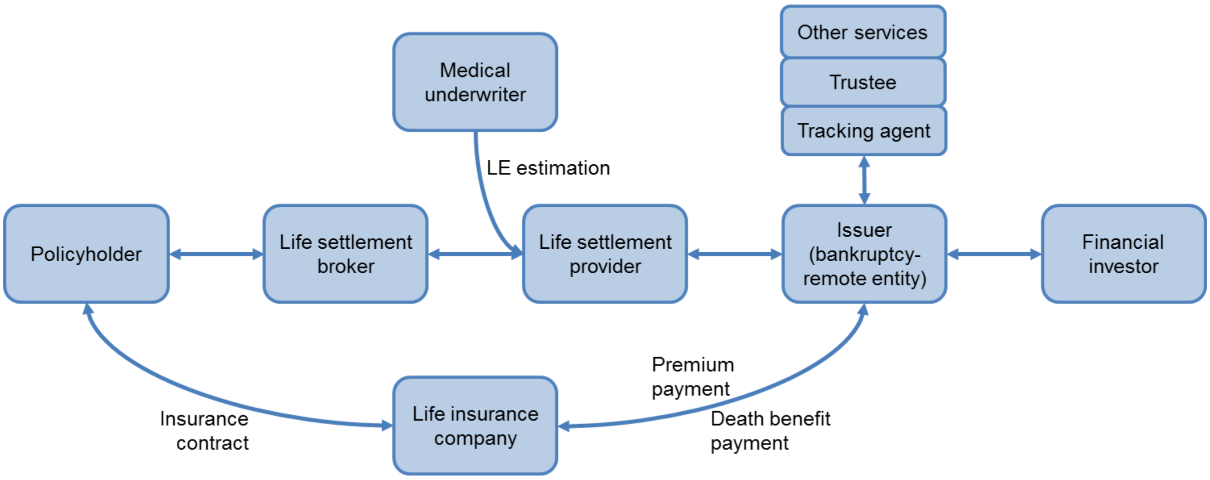

Figure 3: The transaction process of life settlements

Source: Author's illustration

Consequently, it is the task of the *life settlement provider* to conduct the necessary due diligence on the policy and its owner. This includes collecting the medical records and evaluating an offer price for the life insurance policy (Kohli, 2006). A crucial parameter herein is the LE. For this reason, providers engage at least one *medical underwriter,* who analyzes the current health status of the insured, based on medical records, in order to evaluate the corresponding LE estimation[6] (A.M. Best, 2014). Therefore, underwriters assess the influence of specific characteristics of the policyholder, like damage to health and medical treatments, on his mortality relative to a standard mortality (so-called credit and debit system).

[5] For the sake of simplicity, some parties in the LS transaction process have been left out.
[6] The four largest medical underwriters in the US LS market are 21st Services, AVS, EMSI and Fasano (Gatzert, 2010).

The resulting multiplier (mortality rating) is used to adapt the standard mortality to the health status of the insured (Braun, Gatzert, & Schmeiser, 2012). According to A.M. Best (2014), most underwriters use a derivative of the 2014 Valuation Basic Table (2014 VBT) as the standard mortality table. This table provides mortality rates, differentiated by age as well as by smoking status and gender. Nevertheless, LE estimations of different medical underwriters for the same policyholder can show significant variances.

The life settlement provider either acts as a coordinator between broker and issuer or, more commonly, temporarily purchases policies in order to resell them to an issuer. The issuer can also be regarded as a fund manager. Either way, after the transaction, the risk of a misestimated life expectancy is not borne by the provider, but by the issuer/investor. Moreover, the provider's fees usually depend on the number and volume of the policy (Braun, Gatzert, & Schmeiser, 2012). Life settlements are not traded at a central exchange, but over-the-counter. The life insurance policy is privately offered to potential buyers, usually fund managers, which bid against each other. Thus, the purchase process resembles an auction and the private character of the process means that transaction data is hardly available (AA-Partners, 2015b). In the purchase process, the interests of the sellers and the buyers are not aligned and moral hazard can arise. The providers are tempted to increase their offer price and might seek short LE estimations. Furthermore, some life settlement brokers and providers have tried to shorten the transaction process by forward and backward integration in the past. Thus, the usual negotiation of the purchase price between these parties is lost, and the moral hazard problematic is even more serious. The one who suffers this problematic is the issuer or, rather, the investor.

The *issuer* is typically a bankruptcy-remote entity, simply formed in order to purchase life settlements that serve as collateralization for the securities issued (A.M. Best, 2014). Because of the complexity of issuing life settlement-backed securities, the issuer needs the support of several third parties. First of all, the *tracking agent* or servicer is basically responsible for the maintenance of the policies after the purchase. This includes calculating the optimal premiums (in case the policy is a universal life insurance) as well as ensuring its payment to the *life insurance company.* The tracking agent also maintains a contact with the insured to provide actual health status information for updated life expectancy estimations, verifies the life/death status, and collects the death benefit in case it is due (BVZL, 2013). In addition, a *trustee* is in charge of safekeeping the life settlement policies as well as administering the issued securities. Finally, there are multiple further parties such as auditors, legal advisors or actuaries who may be engaged by the issuer (Braun, Gatzert, & Schmeiser, 2012).

At the end of the transaction process of life settlements, there is the *financial investor* who is, in most cases, an institutional investor. The financial investor purchases fund shares, which are managed by a fund manager. This is in contrast to the viatical settlement market, which was mainly capitalized by individuals. The fact, that institutional investors require deep due diligence leads to a reduction in fraud in the life settlement market (Kohli, 2006).

2.1.3 Investment vehicles

There is a number of ways of investing in life settlements. Obviously, investors can purchase single policies. In this case, the policy is purchased directly from a life settlement provider so that no issuer is needed. Hereby, in order to reduce risks and achieve a steady return over time, institutional investors prefer to include policies with dissimilar expected maturity dates (Seitel C. , 2006). However, the lack of professional expertise in managing the portfolio, the considerable transaction costs, and the complex purchase process complicate direct investments.

Therefore, most investors rely on life settlement funds, which also ensure a better diversification (Braun, Gatzert, & Schmeiser, 2012). Since they first appeared around 2003, two types of funds have evolved: closed-end and open-end life settlement funds. In case of closed-end funds, subscription payments take place when the fund is established, and redemptions of the shares are not intended until the fixed maturity is reached. However, death benefit payments normally do not get reinvested, so that shareholders receive disbursements as soon as purchased life insurance policies are due. The fact that no premature redemptions occur implies that the portfolio does not have to be valued regularly. In contrast to this, open-end funds are perpetual, and allow for ongoing subscriptions as well as redemptions. Therefore, death benefit payments are reinvested in new life settlements; this requires an active portfolio management. In addition, regular portfolio valuations, generally monthly, are needed in order to pay off redeemed fund shares to current net asset values (Braun, Gatzert, & Schmeiser, 2012). This causes the problematic of an appropriate valuation which will be explained in Chapter 2.1.4.

Furthermore, investments in life settlements can also be conducted through indices. For example, in 2005, Commerzbank launched a product called Vis Vitalis, referencing a pool of life settlement funds that follow certain criteria defined by Commerzbank. In this way, Vis Vitalis is basically working like a fund of funds (Chowdhury, 2009). Investors can buy certificates which track the performance of the index plain vanilla and yield a projected IRR of 9% p.a. over the term of the product of 12 years (Commerzbank, 2006). Along with the unleveraged certificate, Commerzbank also launched structured products with the index as their underlying instrument. On the one hand, a note providing capital protection, but also a lower projected return. On the other hand, a leveraged certificate, which has 400% participation in the index (Commerzbank, 2006). Besides, Legacy Benefits established in 2004 a rated securitization of life settlements. The notes were backed by a pool of life settlement, with a total face amount of USD 70.1 Million, and was rated A1 by Moody’s. The issuer, Legacy Benefits (2004), promised that the notes pay a coupon of 5.35% per annum.

Finally, life settlements can also be used as a reference portfolio for synthetic swaps, as conducted by Credit Suisse in 2009. According to Credit Suisse (2008), the structures of the synthetic swap can be designed in a way that is appropriate to the investor’s requirements. Hence, the purchase price as well as the premium stream can be adjusted. For example, an investor can pay the full price at the beginning, so that no premiums are required anymore, or he can also pay a smaller purchase price followed by a fixed premium schedule. As with life settlements, the return is a lump sum payment contingent on the lifespan of the individual in the reference portfolio.

This use of derivatives and securitization indicates that the life settlement asset class is maturing. Standardization and transparency of life settlement transactions are increasing. Notwithstanding this, open-end funds are supposed to be the dominant instrument in the future. The fact that several open-end funds have been launched in recent years, but only a few derivatives or closed-end funds, supports this expectation (Braun, Gatzert, & Schmeiser, 2012).

2.1.4 Valuation

From the viewpoint of an investor, life settlements need to be valued in two specific situations. Firstly, when the asset manager purchases the life insurance policy from the life settlement provider. Second, the value of the whole life settlement portfolio has to be determined on a regular basis in order to know the value of the fund shares. Subscriptions and redemptions in open-end funds, for example, are usually possible every month or every quarter, which requires a monthly or quarterly valuation (Braun, Gatzert, & Schmeiser, 2012). Basically, the price of a life insurance policy exceeds the cash surrender value as the policyholder would receive this value from the primary insurer. The value also falls short of the death benefit (face value), which is the only cash inflow of a life settlement investment. Figure 4 illustrates the concept of making profits by investing in life settlements and shows the determinants for the valuation.

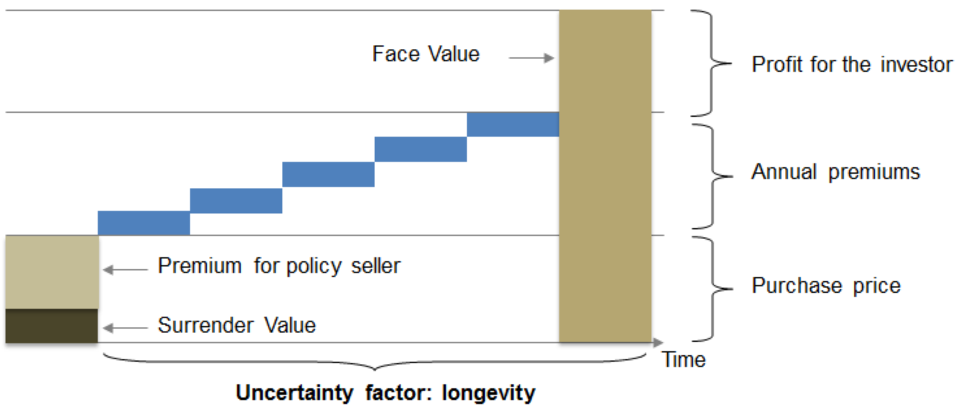

Figure 4: Concept of life settlements

Source: AA-Partners, 2015b, p. 5

Since life settlements are a non-standardized asset, their value is not stated by a security exchange as in the stock or bond market (AA-Partners, 2015b). According to Ortiz, Stone, and Zissu (2008), the value of a life settlement is equal to the present value of all expected future cash flows. Hence, the purchase price P equals the annually paid premiums p discounted at the appropriate discount factor y (IRR) plus the discounted benefit B (face value) obtained at the time of death of the policyholder. Equation 1 shows the corresponding calculation.[7]

$$P = -p * \left[\frac{1}{(1+y)^1} + \frac{1}{(1+y)^2} + \cdots + \frac{1}{(1+y)^n}\right] + \frac{B}{(1+y)^n} \qquad (1)$$

The calculation of the fair value or rather the discount rate of life settlements works exactly the same way as for real estates or private equities. “For the valuation […] actually closed transactions can be used. The discount factors of reference transactions is applied to the projected cash flow streams and leads to a fair value of the life settlements” (AA-Partners, 2015b, p. 11). Thus, the only factor of uncertainty is n which represents the number of months the policyholder is expected to live (LE). The life expectancy influences the present value of the death benefit as well as the number of premium payments which have to be made until the death occurs. Because of the decisiveness of the LE, A.M. Best (2005, quoted in Stone & Zissu, 2006) requires life settlements to have at least LE estimates of two medical underwriters. Since the LE estimates of medical underwriters are not equal, the projected level of IRR is not equal as well.[8] Consequently, for the calculation of the fair value P, the LE and projected IRR of the same medical underwriter have to be used (AA-Partners, 2015b).

[7] Since the valuation is not the core of this thesis, the calculation is not explained in detail. AA-Partners (2015b) provide a detailed description of the valuation.

[8] At the Life Settlement Investors’ Conference 2015 Prof. Dr. Alexander Braun hold a speech about this problematic. At this moment in time a research paper is not available (yet).

2.2 Insurance-linked securities

Owing to the persistence of low interest rates yield, many institutional investors have sought alternative investment opportunities generating decent returns, such as real estate or commodities. However, these are often highly correlated to more traditional equities and fixed-income asset classes. In contrast, ILS allow for a high degree of diversification. This is a key reason why many institutional investors, especially pension funds, are increasingly investing in ILS (Kusche, 2013) – though the strong demand in recent years has led to a significant decrease of the spreads in the ILS market, absolutely as well as in comparison to bond spreads (Swiss Re, 2015).

2.2.1 Introduction

ILS are issued by insurances and reinsurances in order to obtain reinsurance protection for very large risks, such as earthquakes and hurricanes (Schroders, 2014). In the aftermath of Hurricane Andrew in 1992, which caused around 15 billion USD in insurances losses, a shortage of reinsurance capacity occurred. Thus, reinsurers searched for new ways to transfer catastrophe risks to other capital pools than traditional reinsurance (Swiss Re, 2009). By securitizing catastrophic events in financial instruments, the reinsurers managed to lay off such risks in the capital market (Kusche, 2013). According to Cummins and Weiss (2009), these securitizations represents a convergence of the (re)insurance sectors and the capital markets. Some of the key drivers of this development are increasing property values exposed to natural disasters, increasing capital requirements for (re)insurance companies, and advanced expertise in data collection and analysis.

At the same time, this alternative risk transfer offers capital market investors an asset that has low correlation with traditional asset classes and has been much less volatile than many major asset classes as well (Schroders, 2014). However, catastrophic events are tail risks, meaning that they have a low probability but high financial consequences. The management of tail risks in the overall portfolio is, therefore, crucial for a successful ILS strategy in order to keep expected losses low (Schroders, 2014). As the asset class asks for a high level of sophistication, indirect investments by means of dedicated ILS funds are a popular way to invest in ILS. Some of these investment companies are fully specialized in managing ILS, others are part of a large asset manager which also invests in other asset classes (Kusche, 2013).

2.2.2 Structure

ILS can provide reinsurance protection to insurers, reinsurers, governments and companies (e.g. energy and construction companies) for property as well as for causality. Such insurant are also called sponsors. Typically, ILS securitizes extreme events like hurricanes, floods or earthquakes in regions with high population density (Swiss Re, 2009). So far, the most common structures for transferring insurance risks are catastrophe (cat) bonds.[9] In a typical cat bond transaction, the sponsor (or cedent) founds a special purpose vehicle (SPV) and enters into a risk transfer contract (1). The SPV is commonly exempt from the sponsor in order to protect it from a potential bankruptcy (Kusche, 2013). Simultaneously, the SPV issues notes (cat bonds) to the investors in the capital market, which pay in the principal amount in return (2). The principal is held in a collateral trust and invested in high-quality assets, like US Treasury securities (3) generating stable returns (the reference rate).

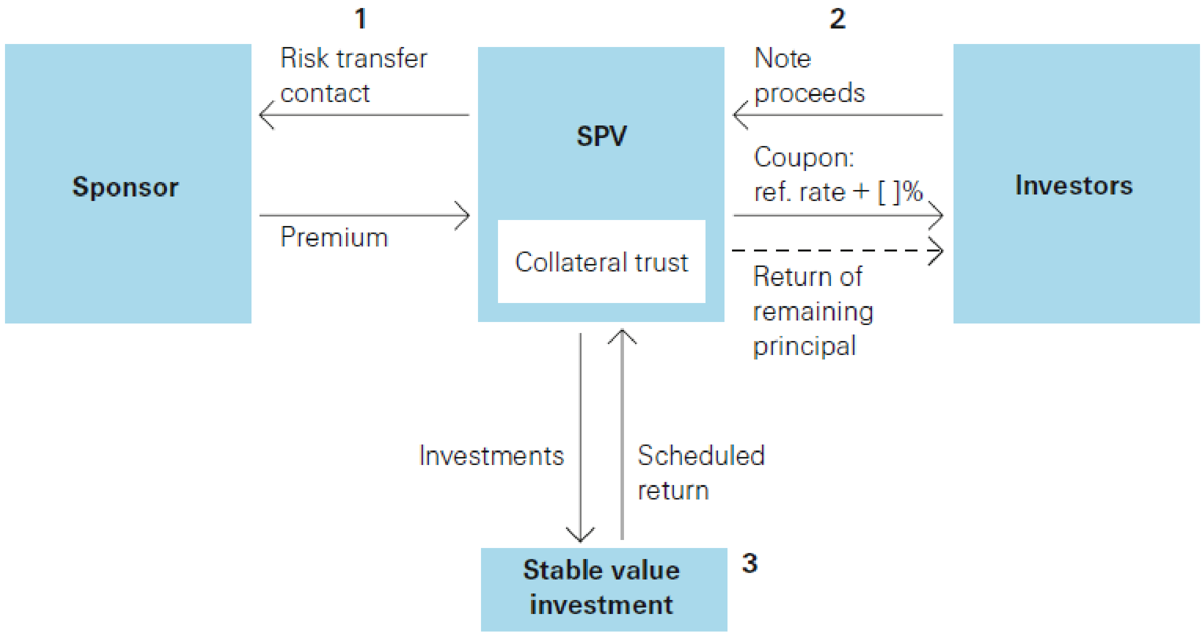

Figure 5: Typical structure of cat bonds

Source: Swiss Re, 2009, p. 22

Unless a qualifying event (trigger) occurs, the cat bond investor receives regular coupon payments plus the full principal at maturity. The coupon is composed of the risk premium paid by the sponsor and the (risk-free) reference rate generated by the stable value investments (Swiss Re, 2009). In case a covered catastrophe happens, the funds are transferred to the sponsor in accordance with the risk transfer contract, and the investor only receives

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[9] Apart from catastrophe bonds, the ILS market also contains financial securities, like catastrophe swaps, contingent capital or options (Cummins & Weiss, 2009). As the focus of the thesis lies on LS, these instruments will not be explained.

any remaining balance. The triggers determining a payoff can basically be subdivided into indemnity and non-indemnity triggers, whereby non-indemnity triggers can be further subdivided into industry-index, parametric and modeled loss triggers. In cat bonds with indemnity triggers, a payoff occurs if the event losses of the issuing sponsor exceed a certain limit (Cummins & Weiss, 2009). This causes the investor to be not only subject to the risk of a catastrophic event, but also to the operational risk of the sponsor.[10] Owing to the increased risk, securities with indemnity triggers usually have an increased spread (Kusche, 2013). In contrast, industry-index triggers determine the payoff depending on the loss of an industry-index. These two triggers are by far the most common. Besides, a parametric trigger means that reinsurance coverage is provided if the magnitude of a physical parameter, for example, the Richter scale for earthquakes, exceeds a specific level. Finally, in case of a modeled loss trigger, the parameters of an event are entered into a catastrophe model to calculate whether simulated losses reach a certain threshold (Cummins & Weiss, 2009).

2.2.3 Types of ILS

Since ILS provide reinsurance coverage for property and casualty, the market is generally divided into the segments “non-life” and “life.” On the non-life side, ILS offer risk transfer for various perils. Their relative share on the cat bond market is presented in Figure 6. The vast majority of the issued bonds protects from perils in the United States; just a small percentage reinsures perils outside of the United States, Japan and Europe (Conning, 2013).

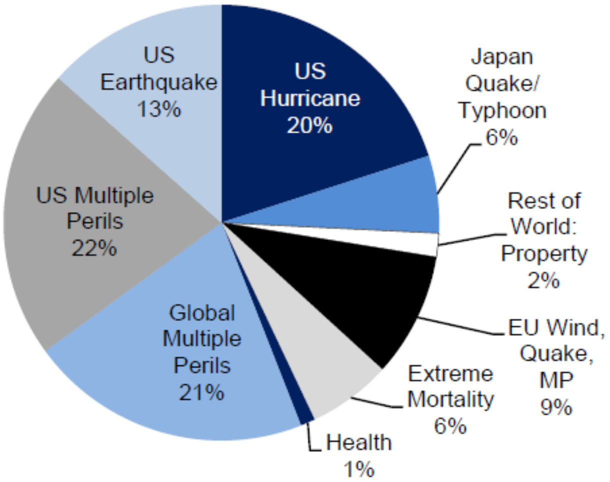

Figure 6: Cat bond issuances between 1996 and 2012 by perils

Source: Conning, 2013, p. 8

[10] Additionally, an indemnity trigger increases moral hazard as well as adverse selection. For the sake of simplicity, this is not explained further in this thesis. An explanation is provided, for example, by Cummins and Weiss (2009).

According to interviewee No. 2 (2015), ILS mainly exist for geographical regions with a high concentration of wealth and a high insurance density. The earthquake in Nepal in April 2015, for example, was not covered by any catastrophe bonds. Apart from catastrophic events, there also exist, for example, non-life ILS, to reinsure against extreme weather conditions such as drought or heat waves (weather derivatives), against aviation risk or also against man-made risks like fire or terrorism (Butler & Ramseier, 2014). The major life-related ILS types provide reinsurance for extreme mortality as well as longevity risk and securitize embedded value as well as statutory reserves (XXX reserves). Obviously, life settlements belong to this class as well (Swiss Re, 2009). Basically, extreme mortality securities hedge the risk that a large number of people will die due to an earthquake, a pandemic, etc., and longevity securities provide risk transfer for companies which are exposed to longevity risk, such as pension funds or insurers. Whereas extreme mortality risk is commonly securitized in cat bonds, the transfer of longevity risk to the capital market has been stuck so far (interviewee No. 3, 2015). Embedded value securitizations give an investor the possibility to participate in the return of life insurances book and XXX securitizations are used by insurers to fund US regulatory capital requirements. Thus, these two ILS types are normally used as a financing tool (Swiss Re, 2009).

Currently, catastrophes in the United States and US Hurricanes, in particular, dominate the cat bond market. In comparison with other types of ILS, the high demand for ILS has led to a stronger decrease in the returns of traditional cat bonds (Beatty, 2015). In addition, the capacity of the reinsurance market for US Hurricanes seems to be too small to satisfy the demand for ILS. Thus, investors and ILS managers are seeking to “diversify away from, but within, the asset class” (Lohmann, 2015, p. 24). On the one hand, floods in traditional areas such as the United States and Europe will gain more interest in the next years. On the other hand, the ILS industry will also broaden its focus on natural disasters in China as well as in emerging markets (Lohmann, 2015). Since a single catastrophe is able to cause a loss of a particular ILS investment, e.g. a cat bond, diversification is also crucial for the dedicated ILS fund. In order to keep the financial consequences of a single event as low as possible, their investment funds offered to institutional investors include investments in a wide range of ILS, regarding geographical regions and perils.

2.2.4 Size of the ILS bond market

Since the reinsurance industry issued the first ILS bond in 1996, the market has experienced a strong growth. Barring the financial crisis, the market showed a positive growth in every year; hence, the new issuance of ILS bonds outpaced the maturities. In 2014, the market peaked at a level of 24 Billion USD and the market is expected to grow in 2015 as well (Swiss Re, 2015). Figure 7 shows the development of the ILS bond market size since 1997.

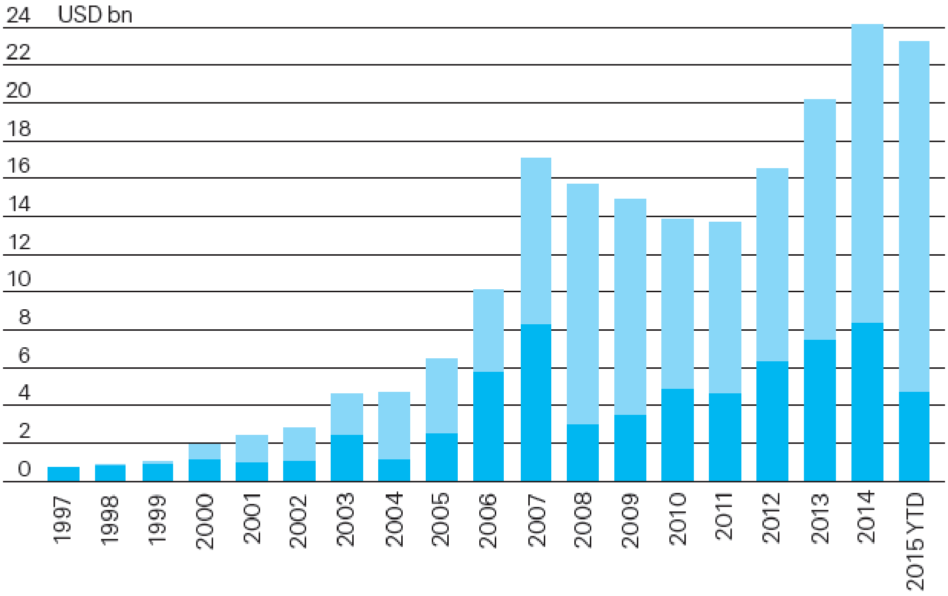

Figure 7: Yearly issuance and outstanding ILS bonds

Source: Swiss Re, 2015, p. 6

Although traditional ILS bonds in general and cat bonds in particular are the best-known ILS instruments, they do not even amount to half of the total ILS market. The reason therefore is that investors and dedicated ILS funds in particular, are increasingly investing capital in private placements of collateralized reinsurance (Stahel, 2015). In 2010, the private ILS market outpaced the public ILS market in 2010 for the first time. Whereas the public market size was 13 billion USD, the private market amounted to 15 billion USD (The Insurance Insider, 2011). As a result of this development, the share of new cat bond issuances traded by dedicated ILS funds fell from 72% in 2012 to 55% in 2013. In contrast, money managers raised their market share from 13% to 31% (Kusche, 2013). Thus, the assets under the management of all dedicated ILS funds together are much larger than the public market size of ILS bonds. According to InsuranceLinked (2015), the 10 largest dedicated ILS funds have a total of 42.5 billion USD of assets under management. All existing dedicated ILS funds together manage more than 50 billion USD of insurance-linked securities. However, these figures are all estimated, as not all funds publish their assets under management.

Table 2: Ten largest dedicated ILS funds (ILS managers) in terms of assets under management

ILS fund (ILS manager)	Head Office	Assets under Management (USD bn, approximately)
Nephila	Hamilton, Bermuda	9.5

Credit Suisse	Zurich, Switzerland	6.5
LGT	Pfäffikon, Switzerland	5.0
Fermat	Westport, United States	4.5
Securis	London, UK	3.5
Stone Ridge	New York, United States	3.5
CAtCo	Hamilton, Bermuda	3.0
Aeolus	Hamilton, Bermuda	2.5
Elementum	Chicago, United States	2.5
Leadenhall	London, UK	2.0

Source: Author’s illustration, based on InsuranceLinked (2015)

2.3 Opportunities and threats of investing in life settlements

An asset class as extraordinary as life settlements also possesses unique qualities with regard to investments. Therefore, opportunities and threats of life settlements as an asset class will be presented in this section. Since the paper aims to make life settlements attractive, especially for ILS managers, the author tries to take the perspective of ILS managers to assess the opportunities and threats. Hereby, it is important to keep in mind that ILS managers would take the place of the issuer in the life settlement transaction process (Chapter 2.1.2). Hence, some common risks of life settlements do not apply to ILS funds because they are able to control these risks themselves. However, since the investment companies usually have a long-lasting relationship with their clients/investors, they also have to take into account potential risks for their investors. In the last chapter, potential initiatives, taken in order to mitigate the risks described, will be presented. The results of the three sections will be used as the basis to draw up the interview questionnaire.

2.3.1 Benefits / favorable characteristics

According to Stone and Zissu (2007), one of the main reasons why investments are made in life settlements is that their returns are uncorrelated to traditional asset classes. The only factor for the return is the death of the policyholder, which happens by chance. Furthermore, KPMG (2013) notice that life settlements returns are not affected by commodity price and interest rate fluctuations as well as by economic downturns. Braun, Gatzert and Schmeiser (2012) empirically investigated the returns of life settlement funds and their correlation to traditional asset classes between 2003 and 2010.

Correlations	Life Settlement Fund Index	S&P 500	FTSE U.S. Government Bond Index	DJ U.S. Corporate Bond Index	HFRI Fund Weighted Composite Index	S&P/Case-Shiller Home Price Index	S&P GSCI	S&P Listed Private Equity Index
Life Settlement Index	1.0000	−0.1231	−0.0414	−0.2683**	−0.0606	−0.1679	−0.0292	−0.0834
S&P 500		1.0000	−0.2575**	0.3487***	0.8015***	0.2982**	0.3877***	0.8779***
FTSE U.S. Gov. Bond Index			1.0000	0.3639***	−0.3795***	−0.2681**	−0.2361*	−0.2228*
DJ U.S. Corp. Bond Index				1.0000	0.3603***	0.0427	0.1057	0.2794**
HFRI Fund Weighted Composite Index					1.0000	0.2712**	0.5866***	0.7665***
S&P/Case-Shiller Home Price Index						1.0000	0.2442*	0.3149***
S&P GSCI							1.0000	0.4124***
S&P Listed Private Equity Index								1.0000

*Significant at 10%; **significant at 5%; ***significant at 1%; correlation *t*-test with 77 degrees of freedom.

Figure 8: Correlation matrix of life settlements and traditional asset classes

(Bravais-Pearson correlation coefficients between the returns on a custom life settlement fund index and traditional indexes)

Source: Braun, Gatzert and Schmeiser, 2012, p. 211

For this purpose, they used the return time series of a total of 17 life settlement funds to create a custom life settlement index. The correlation matrix (Figure 8) shows that life settlements indeed have low correlation to other asset classes, as only the correlation coefficients of life settlements and corporate bonds turned out to be statistically significant[11]. All other coefficients with respect to life settlements show a correlation close to zero. This result is even more impressive when compared to hedge funds. Although praised as a diversifying asset class, the correlations between hedge funds (HFRI Index) and traditional asset classes are highly significant. However, the financial crisis showed that life settlements are, by far, not uncorrelated to traditional asset classes or unaffected by economic downturns. By analyzing the time series on an individual fund level, Braun, Gatzert and Schmeiser (2012) showed that several funds experienced significant losses or even collapsed during the financial crisis. The uncertainty in the capital markets compelled many life settlements investors to redeem their fund shares so that some funds experienced a lack of liquidity. Since life insurance policies are a rather illiquid asset (Stone & Zissu, 2007), their sale was only possible at substantial discounts, which resulted in a massive drop of the funds' share value. Nevertheless, in an empirical analysis, Barroso, Davó and Resco (2013) showed that life settlement funds enable a diversification of existing portfolios. "The introduction of life settlement funds in investment strategies by investors produces greater value due to their low correlation with the other financial asset classes—which are even lower than the correlations between fixed income and equity indexes" (p. 39).

Furthermore, Stone and Zissu (2007) emphasize that life settlements are likely to deliver attractive returns and estimate life settlements to have an IRR of around 11% per year. This matches a study by Januário and Naik (2013), who found that the average expected IRR of a sample of life insurance policies purchases between 2001 and 2011 was 12.5%, whereby the expected IRR rose in recent years and peaked in 2011 with 18.3% per annum. AA-Partners (2014a) analyzed 132 policy purchases between November 2013 and November 2014 of policyholders from the age of 75 to 86 years, and calculated an average projected IRR of 20.9%. AA-Partners (2014a) also calculate an indicator of the average projected return level on a monthly basis, called the AAP Life Settlement Reference Rate, which showed a return level of 18.4% in October 2014. However, these numbers are all projected IRRs. If the LE estimates of medical underwriters turn out to be too short, the level of return falls immediately—this will be discussed in the following chapter. In the study of Braun, Gatzert and Schmeiser (2012), the annualized mean return of the life settlement sample

[11] Compare the capital asset pricing model (CAPM) for an explanation of the benefit of low correlation to other asset classes.

between 2003 and 2010 turned out to be only 4.85%, and the annualized returns of some individual funds were strongly negative. One of the reasons, therefore, was the introduction of the 2008 VBT tables, which estimate LE to be generally longer, though in the period examined, only hedge funds yielded higher returns (5.98%) and government bonds (4.91%) as well as equities (4.44%) yielded similar returns as life settlements.

Another benefit of life settlement for ILS managers is its growth potential. As explained in Chapter 2.1.1.1, several developments make a strong growth of the market reasonable. The pending movement of the baby boomers’ generation into retirement leads to a higher supply of life insurance policies, whereas the ongoing standardization should increase investors’ confidence (Conning, 2011). Therefore, Conning (2011) estimated that the annual volume of new life settlements (in face values) would increase to 4 billion USD by 2020. This would represent a 100% growth compared to the 2 billion USD settled in 2012. Although estimation is difficult and this number is just a rough guess, the life settlement market is regarded as having high growth potential (Gatzert, 2010). Besides, the historically low interest rate led to a huge capital inflow into the ILS markets and reduced the margins of traditional ILS (please see Chapter 2.2.4). Thus, life settlements could offer additional investment opportunities for ILS managers, so that the strong demand of their clients can be met.

Finally, though trading in life insurance policies is sometimes seen as “betting on death,” life settlements can nevertheless be regarded as ethical investments. As the cash proceeds from the sale of a policy are, on average, four times higher than the cash surrender value received from life insurance companies, life settlements enhance the welfare of the policy owners (Januário & Naik, 2013). From this perspective, the life settlement industry helps senior citizens receive a fair value for the policies they do not need.

2.3.2 Risks / unfavorable characteristics

The previous section showed that ILS managers and their clients can benefit from attractive returns and low correlation to traditional assets when investing in life settlement. But these benefits need to be seen as compensation for certain risks that are also entailed in life settlements (Braun, Gatzert & Schmeiser, 2012). In this context, Rosenfeld (2009) mentions longevity risk, counterparty risk, market risk and operational as well as regulatory risk as the relevant factors.

First of all, longevity risk describes, in principle, the risk that insured policyholders live longer than originally estimated. Mott (2007) distinguishes alpha- and beta-longevity risk. Alpha-longevity risk only concerns a certain pool of individuals and occurs due to information asymmetry. As the sell side has more information than the buy side, they might misrepresent the degree of health impairment of the policyholders. Since fund managers or investors usually do not recalculate the life expectancy, they need to rely on the life settlement provider or rather the medical underwriter about this matter. Beta-longevity risk is caused by a systematic underestimation of the life expectancy in case of an increase in longevity of the general population. Both types of longevity risk lead to a drop in the portfolio return as the actual lifespan exceeds the estimated lifespan (compare Chapter 2.1.4). Since even small changes in the lifespan of policyholders have a significant impact on the portfolio return, it is crucial to cope with longevity risk. For this purpose, portfolios need to be well-diversified across different types of diseases and different medical examiners (Stone & Zissu, 2007). However, if longevity exists in a systematic form, LEs of all underlying individuals in the portfolio simultaneously lengthen (Braun, Gatzert & Schmeiser, 2012). This shifts the whole mortality curve of any individual in the portfolio: in the following example, the LE of the individual increases from 90 to 92 months.

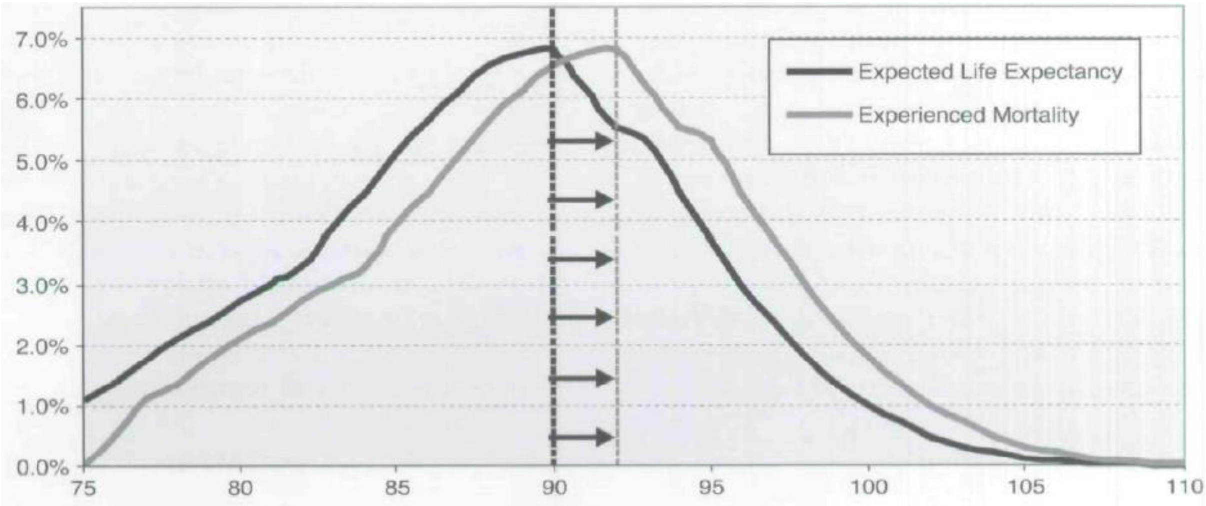

Figure 9: Systematic mortality shift

Shift of the probability distribution for a 75-year-old male non-smoker (x-axis: estimated/actual lifespan in months, y-axis: death probability in percentage terms)

Source: Perera and Reeves, 2006, p. 59

If the systematic mortality shift occurs, diversification cannot prevent a loss. Therefore, LE estimations need to be accurate and anticipate population aging. In this context, the ratio of actual deaths to expected deaths in a certain period (A/E-Ratio) is a popular quality measure for medical underwriting. Different studies show that LE estimations of medical underwriters had historically been too short. For example, the A/E-Ratio calculated by Kinney and Mohoric (2008) for a dataset between 2004 and 2006 was only 0.6. Hence, the number of actual deaths was only 60% of the number of expected deaths.

Counterparty risk includes the risk that any participant in the transaction process of life settlements defaults. Most important is the counterparty risk or credit risk with regard to the primary insurer, as he is in charge of paying the death benefit (Rosenfeld, 2009). However, credit risk of the primary insurer should not be a crucial topic, as insurance companies usually have a high credit rating. Life insurance claims are ranked most senior in the event of default and policyholders in the United States are further protected by insurance guarantee funds (Braun, Gatzert & Schmeiser, 2012).

Because of the illiquid nature of life settlements, market risk is a fundamental risk of life settlement investment. On the supply side, the critical issue is the availability of policies; on the demand side, it is the availability of funds to purchase life settlements (Rosenfeld, 2009). As described in Chapter 2.1.1.2, life insurance policies need to fulfill several criteria to qualify as life settlements. Furthermore, fund managers also seek to diversify their portfolio, so that the number of suitable policies shrinks even further. As a result, only around 20% of all the policies presented to providers are finally purchased by an investor (Frith & McNealy, 2006). In case of a large capital inflow into the market, fund managers might have problems to purchase policies at reasonable prices. In the opposite case, when investors redeem funds from the market, life settlements are vulnerable to becoming liquidity strained (Braun, Gatzert & Schmeiser, 2012). Insurance premiums have to be paid regularly in order keep the policies active, and capital inflow in form of death benefits is uncertain, so that fund managers need to build sophisticated cash management. Otherwise, the manager is forced to sell life settlements to cover due redemptions (KPMG, 2013). As the life settlement market is subject to moderate trading activity, urgent sales are probably only possible with substantial discounts. A distressed fund is then forced to sell even more policies to achieve sufficient cash, which will cause further losses. This inherent risk of illiquidity applies mainly to open-end funds, as redemption of fund shares is not possible in closed-end funds.

Finally, the high complexity and rather low standardization of the process of life settlement transactions leads to several operational, legal and regulatory risks. This requires an in-depth due diligence of the business partner by the fund manager (Rosenfeld, 2009). Life settlement brokers might misrepresent the health status of the policyholder so that a higher price can be realized. Another potential source of operational risk is the tracking agent, who might fail to optimize premium payments, fail to keep the policies in force, or lose contact with the policyholder; this complicates the collection of the death benefit (A.M. Best, 2014). Furthermore, the conclusion of the life insurance contracts could contravene existing laws or might be a stranger-originated (or investor-originated) life insurance (STOLI). In a STOLI contract, the insurable interest is not given at policy inception because the contract is not initiated by the policyholder but by an investor (Gatzert, 2010). The beneficiary of such a contract is not a relative but a third party, who pays the premiums and finally collects the death benefit. The insured individual has no interest to insure himself/herself. As STOLI is considered a great problem, the US regulator aims to ban it, so that the legal status of STOLI is delicate (Gatzert, 2010).

Apart from the risks mentioned by Rosenfeld, reputational risk and valuation risk also need to be addressed. For an asset manager, reputation is the greatest good and must not be wagered (interviewee No. 2). However, for several reasons, the reputation of life settlements among clients is controversial. Owing to inaccurate LE estimations and dubious fund managers, some life settlement funds have performed badly in the past, so that investors have experienced substantial losses. Besides, given that investors earn money when the policyholder dies, life settlements are sometimes regarded as “betting on death” (Blake & Harrison, 2008). In case an ILS manager decides to invest in life settlements, these reputational issues could cause a loss of current ILS fund investors. Finally, valuation risk is probably the most severe risk of life settlement funds. Since there is no objective market value for life settlements, the valuation of fund shares is commonly done on the basis of model values determined by the fund management (Braun, Gatzert, & Schmeiser, 2012). Affolter, Braun and Schmeiser (2014) compared the portfolio valuation reported by the fund management with the prices of comparable transactions. It turned out that several fund managers considerably overvalued their portfolio by applying inappropriate low LEs and discount rates. However, ILS managers might not be subject to valuation risk. Since they would establish their own life settlement funds, they would not have to rely on other fund managers. In this way they are personally responsible for an accurate valuation and possible reputational consequences of their method of valuation. This matter needs to be verified in the empirical part of this paper.

2.3.3 Preconditions for an investment / need for improvement

For an asset class like life settlements to qualify for investment for ILS managers, some of the risks described need to be mitigated. According to A.M. Best (2014), for a further growth of the life settlement market, the industry needs to increase transparency as well as standardization. Furthermore, Seitel (2007) suggests strengthening education and professional data analytics.

First of all, A.M. Best (2014) proposes that medical underwriters publish their methods and performance of estimating LEs. As discussed in the previous chapter, a popular measure for the performance of medical underwriting is the A/E-Ratio. Publicly available A/E-Ratios would show ILS managers which medical underwriter they can rely on and help assess the fair value for life insurance policies. In addition, transparency with regard to the valuation of life settlements is required (A.M. Best, 2014). Life settlement funds still use different approaches to value their fund shares; this complicates the comparison of the performances of different funds for investors. Not surprisingly, Affolter, Braun and Schmeiser (2014) suggest changing the valuation practices by categorizing life settlements as Level 2 assets in the IFRS fair value hierarchy. This would force fund managers to use a fair value valuation method based on available market data and would lead to improved comparability. Another way to increase transparency is to publish actual life settlement market data, for example, by referring to traded volumes and IRR levels. The differences in Figure 1 show that even industry experts find it difficult to estimate such numbers. In this way, investors could better assess what return they can actually expect from an investment.

A possibility to improve standardization in the market is the establishment of powerful life settlement associations. Currently, there are four major associations called LISA (Life Insurance Settlement Association), ILMA (Institutional Life Markets Association), ELSA (European Life Settlement Association) and BVZL (International Secondary Markets for Life Insurance). As an example, by setting standards regarding due diligence and disclosure, LISA and ELSA are trying to improve best practices in the industry. Firms that have refused to adapt to the new standards have been forced out of the industry. In this way, the quality of firms involved in the industry as well as the reputation of life settlement as an asset class will be enhanced (The Peninsula Group, 2014). BVZL aims to establish standards regarding transparency as well as comparability of investment segments, and so regularly issues best practice guidelines for investors and industry professionals (BVZL, 2013). However, it is doubtful as to what extent associations can change the behavior of every market participant. Besides, standardization of reinsurance solutions could help life settlement funds manage longevity risk, and opens up new opportunities for life settlement investment vehicles. This could give access to new clients, fixed income managers or pension funds, which are the key account group of ILS managers (AA-Partners, 2015a). Without further standardization, reinsurance products remain expensive.

In order to professionalize the life settlement industry, Seitel (2007) recognizes the necessity of educating market participants. In his opinion, education is especially needed on the sell side of the life settlement transaction. On the one hand, brokers should be supported with established written procedures involving training and supervision, so that they are able to professionally manage the life settlement transactions for different policies. As a further step, the industry could credentialize the profession of the life settlement broker. On the other hand, providers could cooperate with academic institutions in order to educate pricing analysts in using actuarial models and data software. Seitel (2007) believes that professional education also improves the public understanding of life settlements. However, education also seems to be useful on the buy side, since life settlement investments are very complex, and impetuous investments decisions could quickly lead to losses. Consequently, BVZL puts emphasis on explaining current and prospective investors the transaction process, investment strategies and risk mitigation (BVZL, 2013). Besides, academic research may help to forecast systemic mortality shifts or identify suggestions for improvements. To take an example, the study by Affolter, Braun and Schmeiser (2014), already mentioned, identified that several managers of life settlement funds substantially overvalue their portfolios.

3 Empirical Part

3.1 The views of ILS managers on life settlements

In Chapter 2.3, a theoretical approach was adopted to analyze benefits, risks and the need for improvement; this chapter will present the results of an empirical analysis of these characteristics of life settlements. The insights from the theoretical analysis are used as the basis for the survey. Since the aim of the paper is to make life settlements attractive, especially for ILS managers, these are the focus of attention in this chapter.

3.1.1 Methodology

In order to fully understand the views of ILS managers on life settlements, the author chose qualitative interviews as the study design (called interviews in the following). However, with the purpose that as many participants as possible can be garnered, the ILS managers queried could also choose to fill out the questionnaire via email (called email questioning in the following). The interviews were conducted by means of a standardized questionnaire.[12] The author decided to mix open questions with multiple choice questions in the questionnaire. For instance, interviewees were first asked to talk freely about benefits and risks of life settlement. After the ILS manager made his position clear, he was asked to assess the importance of a number of predefined benefits and risks on a list prepared by the interviewer.[13] In this way, the interview gained more granularity, which helps in the evaluation of interviews. The assessment of the benefits, risks and preconditions was done on a scale from one to six, with six being the highest. The purpose of this scale was to force the manager to decide whether a topic has rather low (1, 2 & 3) or rather high (4, 5 & 6) importance to him as it was not possible to choose a midpoint.[14]

3.1.2 Participants

The target group of the study comprised managers of ILS funds that invest in a wide range of ILS products. Some ILS funds are fully specialized in CAT bonds and are, therefore, not likely to be interested in life settlements. Since the target group was a much-selected cluster and AA-Partners have personal contact with many of them, the first introduction between the

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[12] The questionnaire is added to the appendix.
[13] This approach was only chosen for part D. Benefits and E. Risks of the questionnaire but not for part C. Preconditions.
[14] 1 corresponds to very low importance whereas 6 correspond to very high importance.

author and possible participants was carried out by AA-Partners. Afterward, all conversations were conducted by the author and AA-Partners were not involved in the process anymore. In toto, the author asked managers of 11 different ILS funds to participate in an interview about life settlements. Seven of them agreed to conduct an interview, three agreed to simply fill out the questionnaire via email, but one manager refused to participate.[15] Within the 10 largest ILS funds in terms of assets under management, five managers participated in the survey (please compare Chapter 2.2.4). But smaller funds with a wide ILS portfolio also participated. In terms of geographical distribution and assets under management, the participants seem to be a good cross-selection and representative for the target group.

Table 3: General questions regarding the fund manager and their investors[16]

How large is your company (measured in terms of employees)?	**up to 5**	**6 - 10**	**11 - 20**	**20 - 50**	**more than 50**	
	1	1	3	4	1	
In which range are your company´s assets under management?	**up to 250 mm**	**250 - 500 mm**	**500 mm - 1 bn**	**1 - 2 bn**	**2 - 4 bn**	**more than 4 bn**
	0	2	0	4	2	2
How much of your assets are life related investments?	**0 - 2%**	**2 - 4%**	**4 - 6%**	**6 - 10%**	**> 10%**	**unspecified**
	1	2	4	1	1	1
How much of the life related investments are invested in:	**embedded value**	**extreme mortality**	**longevity risk**	**XXX**	**other**	
	23%	49%	4%	7%	18%	
How is your investors' base structured expressed in % of total assets?	**pension funds**	**family offices**	**private clients**	**insurance comp.**	**banks**	**other**
	73%	7%	2%	2%	8%	8%
In which of the following risk and reward profiles in % do your investors want to invest (measured in terms of expected loss)?	**0 - 0.5%**	**0.5 - 2%**	**2 - 5%**	**5 - 10%**	**10 - 15%**	**> 15%**
	0%	64%	24%	11%	1%	0%
How is your geographical focus of your investors expressed in % of total assets?	**North America**	**Latin America**	**Europe**	**EMEA**	**APAC**	
	5%	1%	72%	1%	21%	

Source: Author's illustration (assets under management expressed in USD)

In Table 3, details of the funds of the participating manager as well as their clients are summarized.[17] The great majority of the companies is based in Switzerland and regulated by the FINMA. Whereas some of the funds completely focus on ILS investments, others also have additional investment strategies, such as stocks or bonds. In case of different strategies, the companies have separate ILS teams, which manage separated ILS funds. In total, the participating funds manage some 25 billion USD in assets in the segment insurance-linked securities. These assets are mostly invested in private collateralized reinsurance or CAT bonds. On average, just 8.5% of the assets are life-related investments and of the 10 participating

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[15] A list of the participating managers can be found in the appendix.
[16] The percentages in this table are weighted in accordance with the funds' assets under management.
[17] Owing to confidentiality reasons, no details of single funds—but just aggregated numbers—will be presented in the thesis.

funds, only one does not invest at all in life. Around 50% of that comprises investments related to extreme mortality and only 4% is related to longevity risk.[18] Most of the individual investment funds issued by the participating companies show a rather small expected loss of 5% or less. However, depending on the wishes of clients, ILS investments can also be used as equivalent for stocks, which implies a higher risk and reward profile.

As described in Chapter 2.2.1, clients especially appreciate the low correlation of ILS funds to other asset classes. This characteristic makes ILS attractive, particularly for pension funds. Additionally, the historical low interest rate led—and is still leading—to a strong money inflow into the capital markets so that returns, for instance of bonds, have declined. Therefore, pension funds have had to seek out new investment opportunities in order to achieve the required returns, and have strongly increased their investments in ILS in recent years (interviewee No. 4). The large money inflow into the capital markets and the increasing popularity of ILS among pension funds have caused an excess demand for ILS, and spreads have declined as well. However, the level of return is no reason for searching new asset classes, as ILS products can be made as risky as one likes. ILS funds rather search for new investment opportunities in order to diversify their portfolio and find independent risk factors. Fund managers search for such investments within their existing types of ILS by investing in new regions, for example, earthquakes in China or floods in Switzerland. Or they search different types of ILS, such as reinsuring marine, aviation, cybercrime or terror. Life-related ILS investments seem to get less attention at the moment, as only one interviewee mentioned an investment opportunity in the life segment.[19] The participants have quite different views on the necessity of new investment opportunities in the long run (Table 4). This result points out that the openness toward new asset classes, such as life settlements, is controversial. The fact that new investment opportunities are less important in the short run indicates that ILS managers are not desperately searching for new asset classes.

Table 4: Necessity of new asset classes or investment opportunities

Are you actively searching for new asset classes / investment opportunities? Please indicate necessity of new asset classes between 1 (very low necessity) and 6 (very high necessity)	1	2	3	4	5	6
In the short run?	2	3	2	1	0	2
In the long run?	1	2	1	0	4	2

Source: Author's illustration

According to Table 5, the interviewees have good knowledge of life settlements. Half of all the managers have even already invested in life settlements. Three of them have invested

[18] A short explanation of the four life-related ILS included in the questionnaire can be found in Chapter 2.2.3.
[19] This investment is called secondary market for annuities.

while working for their current employer, two of them while working for a former one. The ways in which the managers have carried out these investments are very diverse. Two managers directly invested in life settlements before the financial crisis and lost money due to the repricing during the crisis. One manager indirectly invested in third-party life settlement funds. Another one went short of synthetic life settlement products before the financial crisis started because their data showed that the LE estimations were too short. This came true, so the company earned money. Finally, one manager was offered life settlements by many investment funds and banks in 2007, but he rejected them. Although the way they invested in life settlements was different, their experience was similar. The products were clearly mispriced, and at least during the financial crisis, it was almost impossible to sell them at reasonable prices.

Table 5: ILS managers' knowledge of life settlements

What do you know about LS? Please indicate your knowledge between 1(very little knowledge) and 6 (very good knowledge).	**1**	**2**	**3**	**4**	**5**	**6**
	0	0	1	1	6	2
Have you already invested in LS?	**Yes**	**No**				
	5	5				

Source: Author's illustration

When the managers were asked how large the probability was that they would invest in life settlements within the next five years, the answers ranged from impossible over very low and 25% to fifty-fifty. For many managers, it really depends on the developments in the life settlement market in the next years. If the problems mentioned in this thesis are solved, an investment would become realistic. But there are also managers who would—under no circumstances—invest in life settlements.

3.1.3 Results

This chapter presents the results of the interviews with ILS managers. As in the theoretical part, the analysis is subdivided into benefits, risks and preconditions. Table 6 summarizes the descriptive statistics of the three subchapters.

Table 6: Descriptive statistics for the views of ILS managers on life settlements

Overall	**Mean**	**Median**	**SD**	**Min**	**Max**
Overall average	3.7	3.7	1.4	1.7	5.7
Benefits	**Mean**	**Median**	**SD**	**Min**	**Max**
Level of projected IRR	4.3	4.5	1.3	2.0	6.0
Diversification of existing portfolios	5.3	5.5	0.8	4.0	6.0
Low correlation to other asset classes	5.1	5.5	1.2	2.0	6.0
High growth potential	2.7	2.5	1.3	1.0	5.0
Existing inefficiencies can be exploited	3.3	4.0	1.9	1.0	6.0
Interesting story, access to new investors	2.5	1.5	1.7	1.0	6.0
Additional investment opportunities	3.7	4.0	1.7	1.0	6.0
Ethical investment	2.4	2.0	1.4	1.0	4.0
Risks	**Mean**	**Median**	**SD**	**Min**	**Max**
Reputation of asset class (betting on death)	3.6	4.0	1.5	1.0	5.0
Reputation of asset class (non-serious market participants)	4.2	4.5	1.2	2.0	6.0
Reputation of asset class (bad performance history)	4.7	5.5	1.5	2.0	6.0
Loss of current investors	3.9	4.0	1.8	1.0	6.0
Not the right structures available	2.9	2.5	1.7	1.0	6.0
Relatively long investment horizon (average LE for closing = 8 years)	3.3	3.0	1.2	2.0	5.0
Illiquidity	3.4	3.0	1.7	2.0	6.0
Information asymmetry (reliance on life settlement provider)	4.4	4.5	1.5	2.0	6.0
Risk of too short LE estimates	4.3	4.5	1.7	2.0	6.0
Credit risk of the primary insurer	2.1	2.0	1.1	1.0	5.0
Lack of expertise regarding LS (of both your company and your clients)	2.6	2.0	1.6	1.0	6.0
Preconditions	**Mean**	**Median**	**SD**	**Min**	**Max**
Transparency					
Fair value valuation method based on market data available	5.2	5.0	0.7	4.0	6.0
Availability of A/E-ratio from medical underwriters (A/E-Ratio)	5.6	6.0	0.5	5.0	6.0
Availability of market information: Traded volumes (face values)	4.4	4.5	1.4	2.0	6.0
Availability of market information: Traded volumes (purchase prices)	4.4	4.5	1.4	2.0	6.0
Availability of market information: IRR levels	4.5	5.0	1.4	2.0	6.0
Availability of fund ratings or a sort of independent review opinion	2.3	2.0	1.3	1.0	5.0
Liquidity					
Established market for resale of earlier bought policies (tertiary market)	4.5	4.0	1.2	2.0	6.0
Availability of exchanges for the sale of portfolios	2.8	3.0	1.3	1.0	5.0
Availability of blocks of policies	3.9	4.0	0.8	3.0	5.0
Availability of credit lines for premium payments/bridge finance	3.3	4.0	1.5	1.0	6.0
Standardization					
Availability of an index	3.7	3.0	1.4	2.0	6.0
Availability of reinsurance against longevity	3.0	2.5	1.5	1.0	6.0
Availability of associations	2.6	2.0	1.4	1.0	5.0
Availability of code of practice (summary of best industry practices)	3.8	4.0	1.8	1.0	6.0
Availability of one standard for IRR calculation	3.2	2.5	2.0	1.0	6.0
Education					
Examples of successful investments	2.7	2.0	1.5	1.0	6.0
Access to independent academic research	5.0	5.0	0.9	3.0	6.0
Access to education/know how	4.0	4.5	1.5	1.0	6.0

Source: Author's illustration

3.1.3.1 Preferred structure and target clients

Before the views of ILS managers on benefits, risk and preconditions of an investment in life settlements can be explained, the structure of a potential investment has to be defined. Depending on the structure selected, the characteristics of life settlements—as well as the need for improvement—are different. Table 7 depicts details of the preferred long-term structure that the ILS manager would use. This structure chosen is not dependent on the wishes of the clients, but on the characteristics of life settlements.

Table 7: Preferred structures of ILS manager for investing in life settlements (in the long run)[20]

Which structure would you prefer in order to invest in LS?			
Own or third-party product:	own product	third-party	
	8	3	
Fund, index investing or structured product:	fund	index-product	structured product
	7	1	2
If a fund is chosen, open-end or closed-end fund:	open-end fund	closed-end fund	
	3	4	
Adding LS to an existing product or creating a new product:	adding to an existing product	new product just with LS	new product mixed with other ILS
	0	6	2

Source: Author's illustration

First of all, when stepping into the life settlement market, some managers would choose a special structure in order to be able to slightly build up the life settlement position. Investing in a third-party product before creating an own one, or cooperating with an existing life settlement fund team before integrating the team into one's own company, are possibilities for the first phase of investing in life settlements. As the focus is on long-term investments, such investments were not discussed in depth. In the long run, the great majority would not invest in a third-party product, but manage the product themselves. The interviewees emphasized that investing in life settlements has to be worth the effort, so that the establishment of an own product only occurs if the clients show a certain demand. Thus, starting with a ramp-up period before the whole life settlement sector is built up, is a possibility. In case only few clients want to invest, some managers might decide to invest in a third-party product, and other managers would not invest at all.

Then, as a product, a fund is clearly favored over index-investing or a structured product. Hence, individual life insurance policies are bought. One reason, therefore, is that managers prefer not to apply any financial engineering but want to design a simple, conservative product. Leverage or capital-guaranteed products could be problematic because of the complicated structure and because of the involvement of additional counterparties (counterparty

[20] Multiple references were possible.

risk). Besides, index-products are rather suitable for efficient and transparent markets. According to one manager, the advantage of an index-product is the independence of the providers. Among the seven managers choosing a fund, four prefer a closed-end and three an open-end structure. Hereby, managers are in a dilemma between the illiquidity of life settlements and the wish of the client for short maturities. Besides, with an open-end structure, it is more difficult to handle the valuation problematic, because monthly valuation is required. That is why one manager would establish a fund with a redemption period of one year and regulated by the AIFMD (alternative investment). Another manager would establish a complete closed-end fund where investors have to stay in the fund till the last death benefit is paid out. By using bridge financing or cash calls, the working capital management of such a fund could be optimized. Finally, adding life settlements to existing products is no option for any manager as these products are clearly declared, and an addition would require much explanation and could even cause fund redemptions. Most managers prefer to establish a new fund just with life settlements. Because of liquidity issues and doubts whether sufficient money can be raised for a single life settlement product, two managers would mix life settlements with other ILS.

Table 8: Target clients for life settlements

For which of your investors would life settlement investments be most likely suitable?	pension funds	family offices	private clients	insuranc e comp.	banks	other
	1	9	1	1	1	1

Source: Author's illustration

Almost all participants agree that life settlements are not a suitable asset class for pension funds. Several managers have already talked with them about life settlements and it clearly turned out that pension funds are not interested in investing. Since pension funds already have longevity risk on the debit side of their balance sheet, they surely do not want to have longevity risk on the credit side as well. Furthermore, investing in life settlements might cause reputational risks for pension funds. The asset class is not regarded as a suitable product for institutional clients in general. These clients have to answer to an investment committee and, therefore, take the line of least resistance and do not want to take much risk. But life settlements are rather appropriate for clients who strive for high returns. Table 8 shows that life settlements are certainly most likely suitable for family offices. According to ILS managers, this is due to several reasons. First of all, family offices have a long investment horizon and do not need liquidity. Second, they are able to buy whatever they want, as family offices do not have to stick to regulatory guidelines. Third, ethical issues of life settlements are not relevant for them and, lastly, the risk tolerance of family offices is higher than the one of normal investors.

3.1.3.2 Benefits / favorable characteristics

When ILS managers were asked about the benefits of life settlements, their general answer was that there are certainly some benefits. But currently the asset class does not fulfill important preconditions necessary for exploiting these benefits. The benefits that interviewees mentioned of their own accord most frequently are the low correlation of life settlements to other asset classes and the possibility to diversify their portfolios. Furthermore, three managers praised the expanded investment opportunities which life settlement would offer. Interestingly enough, only one manager stated the level of return.

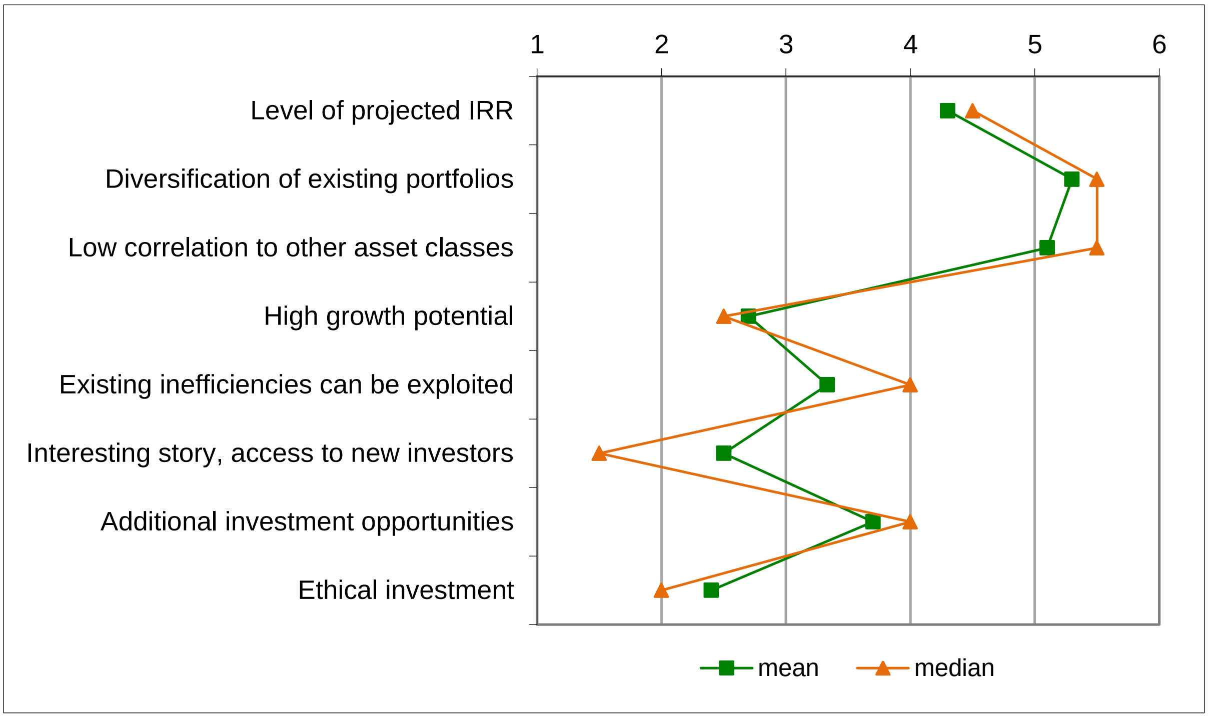

Figure 10: Importance of different benefits of life settlements

Source: Author's illustration

In line with the theoretical analysis and statements above, the multiple choice answers result that the *diversification of existing portfolios* and the *low correlation to other asset classes* are the most important benefits of life settlements (Figure 10). Both characteristics were ranked higher than 5 on average, which corresponds to "high importance." With a standard deviation of only 0.8 and a minimum ranking of 4, diversification especially is an undisputed benefit. One of the reasons why low correlation was assessed as being slightly less important is that one participant emphasized the high correlation of investments in micro-longevity to macro-longevity.[21] This is not surprising, because generally the main goal of an investment in insur-

[21] Micro-longevity risk refers to the longevity risk of LS described in Chapter 2.3.2 and typically involves a small number of lives that were specially selected for the purpose. Macro-longevity risk refers to longevity risk of

ance-linked securities is to find independent risks that are not correlated to traditional asset classes like stocks or bonds (Chapter 2.2.1).

The *level of IRR* is seen as an important factor when investing in life settlements because investors need to earn an appropriate premium for the risks taken. However, life settlements have a problem of credibility among ILS managers because the effective IRR has usually fallen short of the projected IRR by far. Therefore, all of them are not interested in projected numbers, but in the effective returns. The relative high average value of four is attributable to the fact that some participants ignored the word “projected” in their evaluation. Hence, the average of 4.3 is rather the answer of the manager for the level of effective IRR and the importance of the level of projected IRR is far below this figure. The benefit *additional investment opportunities* was assessed as being almost as important as the level of IRR. By means of life settlements, the ILS range could be expanded. However, various managers doubt whether life settlements really do supply much investment opportunities. The current market size might be too small in order to raise money. In this context, two interviewees brought up that life settlement might have problems in gaining acceptance, as long as macro-longevity is not launched successfully on the capital markets. Just as additional investment opportunities, the *high growth potential* is also questioned. But this benefit has rather low importance for the ILS manager anyway.

With a very high standard deviation of 1.9, *exploiting existing inefficiencies* is a highly controversial benefit. On the one hand, inefficiencies give the opportunity to achieve a higher return which is naturally desirable. On the other hand, inefficiencies only exist if the market is illiquid and/or not transparent—this implies that unsophisticated investors have to learn the hard way. Thus, inefficiencies in the market represent an entry barrier for new investors and in order to become a maturing asset class entry barriers definitely have to be low. The remaining two benefits, *interesting story* as well as *ethical investment*, have low importance for the ILS manager. There has to be an interesting story behind an investment in order to grab the attention of an investor. But the majority of interviewees regard life settlements as a dangerous story rather than an interesting one. Furthermore, more popular ILS like CAT bonds are already an exciting business case for most investors. Finally, several interviewees admit that the basic idea of life settlements is ethical. However, in the public perception, it is a rather immoral investment. Because of the bad reputation hardly anyone thinks of the basic idea.

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national populations and portfolios of pension annuities and, therefore, involves a large number of lives (J.P. Morgan, 2009).

3.1.3.3 Risks / unfavorable characteristics

When the participants were asked to freely explain risks and disadvantages that hinder them from investing in life settlements, one of the main topics was always reputation. The reasons why reputation is a crucial problem are diverse, and will be discussed in the first section of this chapter. Besides, the main emphasis was quite different. Valuation problems, regulatory risks, information asymmetry as well as illiquidity are obstacles that ILS managers equally associate with life settlements.

As reputation already seemed to be a critical issue before the interview, it was subdivided into “betting on death,” “non-serious market participants” and “bad performance history” in the questionnaire. Although the ILS manager ranked these sub-points quite differently from each other, clearly the most important was—with an average ranking of 4.7 and a median of 5.5—the *bad performance history*. Even though not many clients have their own experiences of life settlements,[22] the bad experiences with this asset class have spread among investors.[23] However, the attitude toward life settlements range from “if you know what you do, it will work” to “never going to touch it anymore.” Closely linked to the bad performance history is the *existence of non-serious market participants*. One interviewee especially criticized the intrigues of brokers and providers in interaction. Another one emphasized the importance of good market participants in general, as cowboys[24] destroy the reputation of the asset class, which will sooner or later have an influence on all other participants. In case cowboys are in the market, new investors are likely to learn the hard way, for example, if a dubious fund manager overvalues his assets. However, there are also votes against this point of view. Within the capital markets, people are opportunistic and asset managers are professional, so that they should know how to handle non-serious market participants. One manager added that dubious participants are not necessarily the problem, but there are just many ways to exploit the situation of other market participants. A bit less important, but still of importance, is the reputational risk caused by the possible interpretation of life settlements as *betting on death*. Half of all managers think that fundamental ethical objections of their clients to life settlements are currently an important obstacle to invest in the asset class. As a result of all three sub-points, the asset class needs a lot of justification by the manager, and is likely to cause friction with the client. And at the end of the day, a manager does not want to tell the

[22] One interviewee guessed that 1 out of his 100 clients has his own experience of LS.

[23] The spreading of experiences is quite different from one manager to another and also depends on the location of the manager/client (e.g. relatively many investors in Australia and Japan lost money). For example, one interviewee thinks that all his clients either lost their own money, or know somebody who lost money with LS. Another interviewee thinks that LS are just a niche so that the loss of a few funds did not cause much sensation.

[24] The definition of cowboys for this interviewee is people who are not playing fairly. Appropriately enough, other interviewees call the LS market the Wild West.

client how to behave but to fulfill his value proposition. Thus, for almost every manager, the image of the asset class is too bad to justify an investment (bad client perception). In addition, ILS managers and their investment committees have objections against life settlements themselves. In conclusion, without any changes in the market, investments could have reputational consequences for the fund and trustworthy justifications are needed in order to prove that investing in life settlements is now a good idea.

The *loss of current investors* is closely related to the reputation and belongs, with an average ranking of 4, also to the more important obstacles. In general, the ILS manager would not invest if there is any risk of losing current investors. But most of them think that clients would not withdraw if a fund starts investing in life settlements. In case a manager is convinced of a product, the professional client—and the clients are indeed professionals—takes his approach seriously and thinks about the product. Finally, if an investor is not convinced, he will not invest, but will not withdraw money.

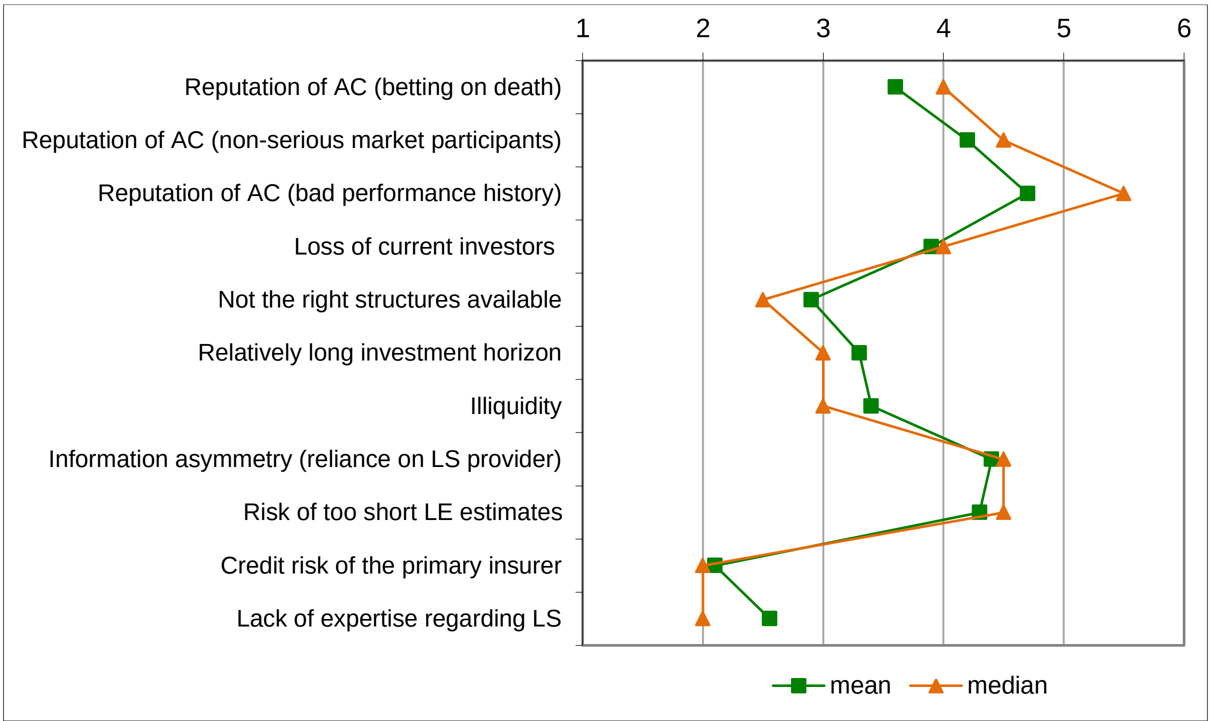

Figure 11: Importance of different risks of life settlements

Source: Author's illustration

With an average ranking of 4.5, the information asymmetry and the risk of too short LE estimates are almost as important as the reputation of the asset class. The *information asymmetry* seems to be controversial. On the one hand, five managers regard it as an important hurdle. In the life settlement market, information asymmetry is regarded as especially dangerous, as one wrong estimate or even fraud has enormous follow-up cost. In the CAT bond, market durations are shorter, and any missed investments mature mostly after one year. On the other hand, four managers have no problem with relying on providers. They believe it is the job of the manager to choose business partners they can trust in. Finally, there is also asymmetric information in the stock or bond markets, so that investors need to rely on the underlying company. Nevertheless, all managers urge more transparency in the transaction process of life settlements. In this context, the incentive structure as well as the fee payments were criticized. The incentive structure causes that the sell side is not interested in providing an accurate LE estimate.[25] Therefore, the incentives of every market participant need to be changed, especially the one of the broker, which is very tough. As an alternative, the medical underwriters or the providers could be reminded of their duty. The fee payments were criticized by three interviewees, as there are too many market participants who take commissions. The *risk of too short LE estimates* might have been interpreted differently by the participants in the questionnaire. Half of them stated that this is the business risk and ranked it with low importance. The other half ranked this point at 6 because they focused on the systematic underestimation of the LEs. As an example, one interviewee explained that in the past the estimations were revised every now and again. Each time, medical underwriters claimed that the LEs were now accurate, but later they revised these again. According to two interviewees, a reason for the systematic underestimation is the lack of statistical data. The influence of medical developments on LEs, in particular, is hard to estimate without much data. The whole discussion shows that LE estimations need to become trustworthy.

The three obstacles with reference to the structure of life settlements (not the right structure, long investment horizon and illiquidity) are all dependent on the investment vehicle a manager would choose.[26] Consequently, the hurdles for an investment can be various. Although it is not that apparent in Figure 11, the interviews showed that *not the right structure available* as well as the *long investment horizon* are of secondary importance for almost every participant. The managers are firm that they can establish the structure, which is, in their opinion, optimal for life settlements. But it is uncertain whether the clients want to invest in such a structure. The long investment horizon should not be a problem per se for most clients. Finally, the optimal investment horizon for stocks is also five years or longer. However, in principle, investors want to be able to withdraw their money at any time. This demand is tricky because there is no established tertiary market for life settlements. Three interview-

[25] The moral hazard of LS brokers was criticized several times. One interviewee explained that brokers advised the policyholder to start smoking and eat fatty food before the medical test was done. In this, the LE estimate was shorter, the policyholder received a higher sell price and the broker earned higher fees. After the test, the policyholder stopped smoking and eating fatty food.

[26] The managers were asked to answer these three questions, assuming that the fund structure is like their preferred LS structures.

ees explained that the *illiquidity* is of less importance in case a close-end fund is chosen because no trade is necessary. Only if the fund gets liquidity-strained, liquidity is needed. But then the illiquidity still has the disadvantage that current pricing of the insurance policies is very difficult or even impossible. Three other interviewees would rather choose an open-end fund, so that the illiquidity problem certainly needs to be solved. In conclusion, illiquidity does not seem to be the main obstacle, but the associated price uncertainty makes an investment more complicated, as an accurate valuation would need market prices. Besides, investors need to be aware that life settlements are a buy-and-hold asset.

Lastly, the *credit risk of the primary* insurer as well as the *lack of expertise* did not cause much discussion, and the participants also attached low importance to these points in the multiple choice questionnaire. The primary insurers are regarded as very good risks, especially because they are strongly regulated in the United States. Generally speaking, the lack of expertise is no obstacle, since ILS managers would definitely acquire the necessary knowledge before they invest in life settlements. Several managers added that the product demands very much specific knowledge because it involves many delicate aspects. Therefore, the product really needs to be worth the effort, which means that the amount of assets invested needs to exceed a certain level. Besides, there is a lack of expertise on the client side, so that much educational work is required from the manager. More expertise on the client side would facilitate a market entry.

Apart from the obstacles in the multiple choice questionnaire, two interviewees expressed reservations relating *regulatory changes*. On the one hand, the American regulator might resist a growth of the market and forbid the sale of life insurances. In this managers view the transaction process of policies is completely inefficient. Many middlemen siphon off profits so that the policyholder receives much less than the policy would actually be worth. If the regulator would forbid the sale of policies and determine the value the primary insurer has to pay to the policyholder (surrender value), the policyholder would receive much higher amount of money. On the other hand, the primary insurers might simply restructure their products in order to eliminate third parties. Furthermore, three managers mentioned that life settlements also involve legal risks. However, two of them think that this point has meanwhile improved, and is not a topic anymore.

3.1.3.4 Preconditions for an investment / need for improvement

The previous chapter revealed that life settlements possess many risks and disadvantages, which hinder ILS managers from becoming active in the market. For an asset class like life settlements to qualify for investments, some of these risks are not bearable; hence, their removal is a precondition until life settlements could become eligible. As most risks have already been familiar before the interviews through the theoretical part, the questionnaire also addressed specific preconditions as well as the need for improvement, in order to remove certain risks and make life settlements more attractive to investors. This chapter will present the results from the interview as well as the multiple choice answers of ILS managers regarding these preconditions. Since the theory suggests improvements in the areas transparency, standardization and education, the preconditions were classified under these topics in the questionnaire. Also, liquidity was added as a topic. However, this classification is rather subjective, and certain preconditions could also be classified under different topics. Figure 12 gives an overview of the different preconditions, with their respective classification and their rankings, assessed by ILS managers.

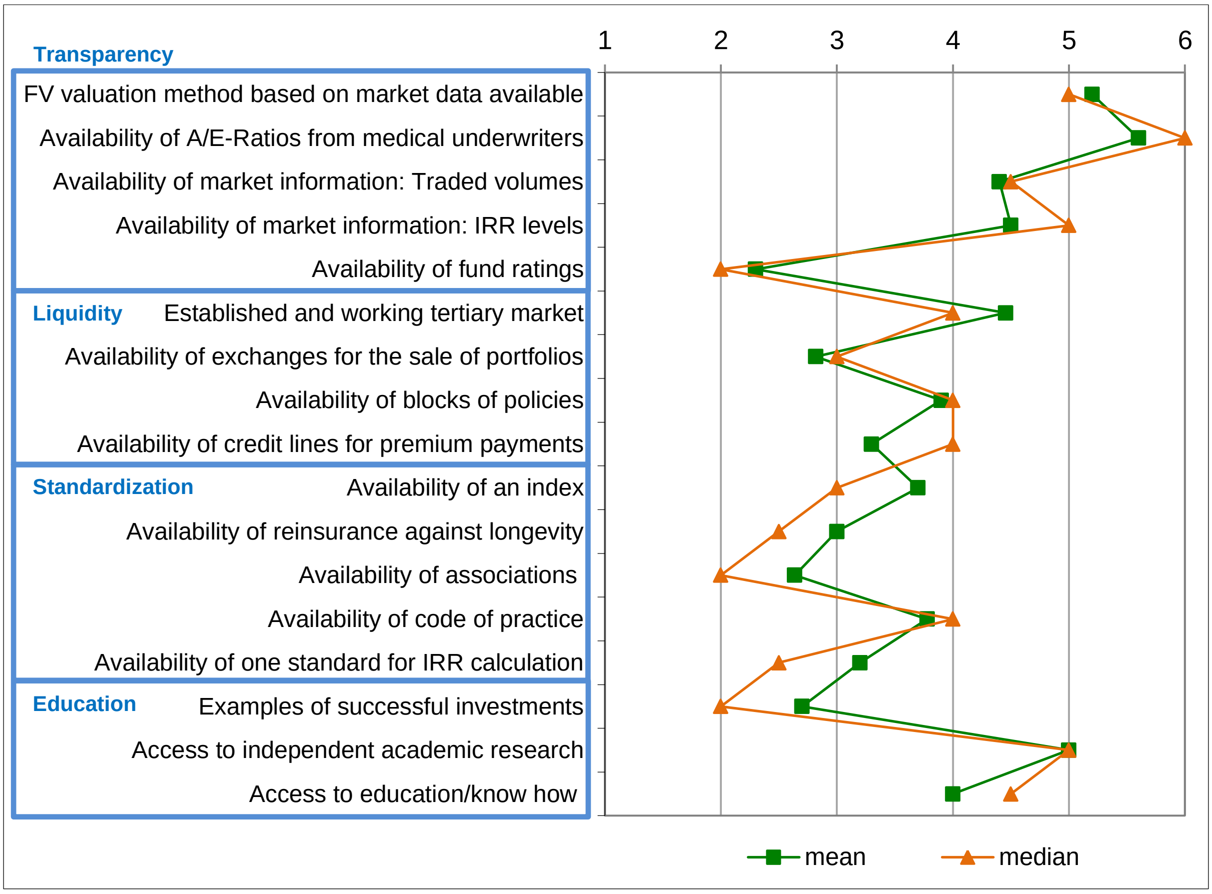

Figure 12: Overview of the importance of different preconditions

Source: Author's illustration

Figure 12 clearly shows that the main topic is the lack of transparency. Furthermore, during the interviews, many managers emphasized the high importance of transparency in general, in order to make a market entry attractive. Apparently, transparency is closely linked to some of the main risks identified in the previous chapter. Several managers noted that the positive influence of transparency on the risk of too short LE estimates and the identification of non-serious market participants. Besides, transparency would help to build up a clean track record, including an explanation of why the performance is good in one year and bad in another. Heretofore, the life settlement market experienced several instances of repricing, so that people lost money without any plausible events. With a median ranking of 6, the *availability of A/E-Ratios from medical underwriters* is undisputed as the most important precondition. Among 10 managers, six ranked it with a 6 (very high importance) and four with a 5 (Figure 13). ILS managers not only want to know the overall A/E-Ratios, but also the ratios for different cohorts, depending on age, impairments, gender, etc. of the policyholder. In this way, for every life insurance policy, they could choose the medical underwriter with the most precise estimates for the relevant cohort.[27] However, few managers criticize the point that the A/E-Ratio just refers to historical estimates, and medical underwriters might change their behavior over time.

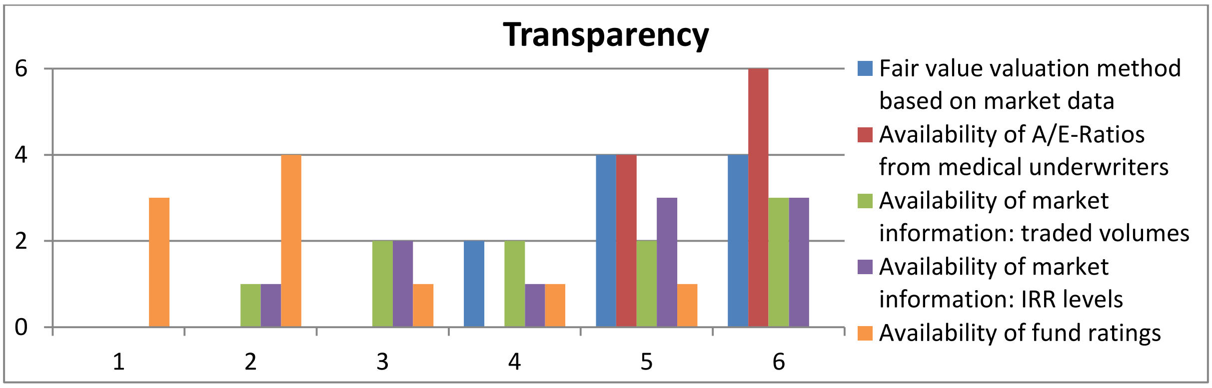

Figure 13: Importance of the preconditions classified for transparency

X-axis: level of importance, y-axis: number of managers who ranked a precondition at the respective levels of importance

Source: Author's illustration

The *Fair Value method based on market data* was assessed the second most important precondition[28]. Hereby, the method is not the critical issue, because ILS managers are able to find out a reasonable method. Rather, the input data for the models is crucial, in order to be able to price life settlements accurately. Hence, there needs to be market data available, and market participants should declare the input data used transparently. One manager remarked that auditors should compare the portfolio prices of life settlement funds with market data. Thus, auditors could help to identify black sheep and purge the market of them. The different kinds of *market information* (IRR levels and traded volumes) were assessed in

[27] One manager mentioned that there are three market leaders for risk modeling in the CAT bond market. He has one favorite risk modeler, but for certain risks, the estimates are less precise, so that he chooses a different risk modeler.

[28] However, according to one manager, the importance depends on the structure of the investment. If a closed-end fund is chosen, the pricing with market data is less important than in case of an open-end fund.

a very similar manner. Basically, the more market information available the better. One participant would like to have market information similar to the report by AA-Partners, which involves not only the overall IRR/volume but also the IRRs/volumes for certain cohorts. However, reported IRRs might be meaningless at the moment because they are calculated inconsistently. For example, the IRRs of AVS and Fasano are very different so that they should not be mixed together in one joint IRR. Only the "true" level of IRR would be meaningful. The only precondition within transparency which has little importance for the eligibility of the life settlement market is the *availability of fund ratings*; most participants ranked this at 1 or 2. Managers do not need a fund ranking to know if they do well, and their clients trust them.

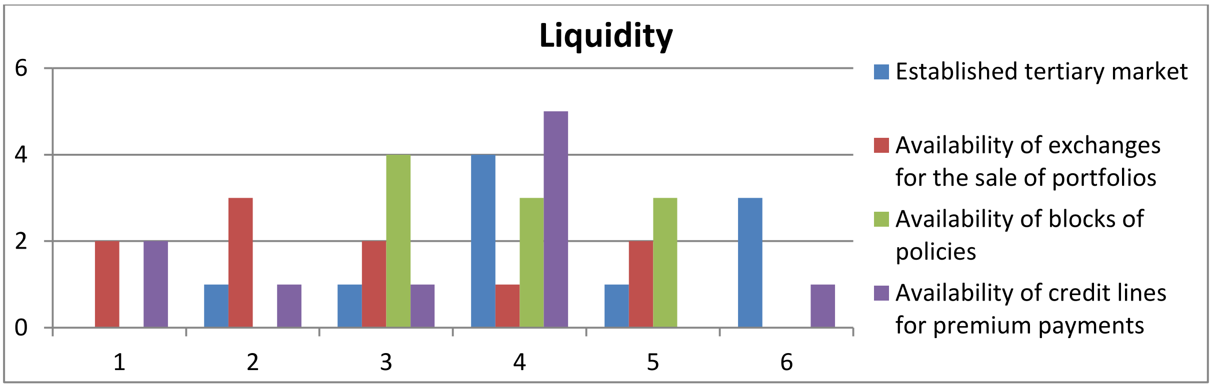

Figure 14: Importance of the preconditions classified for liquidity

Source: Author's illustration

The distribution of the rankings in Figure 14 shows that liquidity is generally a less important precondition compared to transparency for life settlements qualifying for investments. In general, a reason could be that ILS managers would not trade much with life settlements, but rather drive a buy-and-hold strategy. Trade would take place if it is really necessary. With an average ranking of 4.5, an *established tertiary market* has still a high priority for ILS managers, but the point of view on this is quite different. Some of the managers think that it is not a liquid asset anyway, so that a tertiary market is especially important. Others think that it is not a liquid asset and, so, the establishment of a tertiary market does not change matters that much, and managers should find different investment forms where less liquidity is needed. As described in Chapter 3.1.3.3, the view surely depends on the structure that is chosen for the investment.[29] In case of a customary open-end fund, a tertiary market has very high importance. But less liquid forms of investment, for example, an alternative investment fund (AIFMD) with annual liquidity, would also be possible, so that liquidity becomes less im-

[29] One manager answered that in case of open-end funds, the importance of a tertiary market would be 6, but since he chooses a closed-end fund, it is only 4.

portant. Nonetheless, if a fund gets liquidity, strained liquidity has highest priority. In contrast, the participants are in agreement that the trade in portfolios does not necessarily have to take place on an *exchange*; there is, for example, no exchange in the CAT bond market as well. But then again, managers require a comprehensible pricing for different cohorts. They need to know what they will practically get for the life insurance policies on the market; theoretical prices are not of use. Price certainty is needed, whether this happens on an exchange or not is not important. The view of the participants on the *availability of blocks of policies* is also quite the same. Blocks of policies are not of highest priority but in case of a market entry, the effort needs to be worthwhile in terms of volumes.[30] Finally, the *availability of credit line for premium payments* (bridge financing) depends on the structure chosen, the existence of a working tertiary market and on the interest rate. Basically, the managers would choose a rather conservative structure, and do not want to take too much risk (please see Chapter 3.1.3.1). They prefer to use their own funds and not to use leverage (low asset-liability level). Therefore, bridge financing is not really necessary, but it is undisputedly very helpful for investors, in order to optimize working capital management. Furthermore, if a closed-end structure is chosen as well as if no working tertiary market exists, bridge financing becomes more important.

The preconditions classified for standardization turned out to be the most controversial ones and provided ground for intense discussions. Every precondition showed a standard deviation of 1.4 or above, whereas, for example, the standard deviations of the topic transparency were at maximum 1.4. At first glance, with the overall second lowest average ranking (2.6), the *availability of associations* seems to be unpopular. Indeed, the interviews showed as well that associations are no precondition at all for a market entry. An association even indicates that the market is not working properly. The same holds for the *availability of code of practice* (summary of best industry practices), while this precondition was ranked considerably higher (3.8). However, the interview revealed that these measures could improve some problems associated with life settlements—specifically the existence of non-serious market participants and possibly the valuation. On the one hand, a strong association could ensure self-regulation of the market participants.[31] Of course, ILS managers conduct an in-depth due diligence by themselves to choose their business partner, but the participation in an association could be an early indicator for a serious partner. In this way, an association makes it easier for investors to step in. On the other hand, an association could draw up best

[30] One manager assumed that it should be possible to trade blocks of 10–20 policies.
[31] One manager suggested getting the LLMA (Life and Longevity Market Association) on board which was, due to bad experiences with LS, not active in the LS market so far.

practices regarding valuation of the assets and reporting of the used data for the valuation. A standardized valuation and reporting would make sense, as it supports the comparability and even prevents fraud.[32] However, these best practices would have to be strictly binding. That is why the regulator has to impose the guidelines and auditors need to control their compliance.

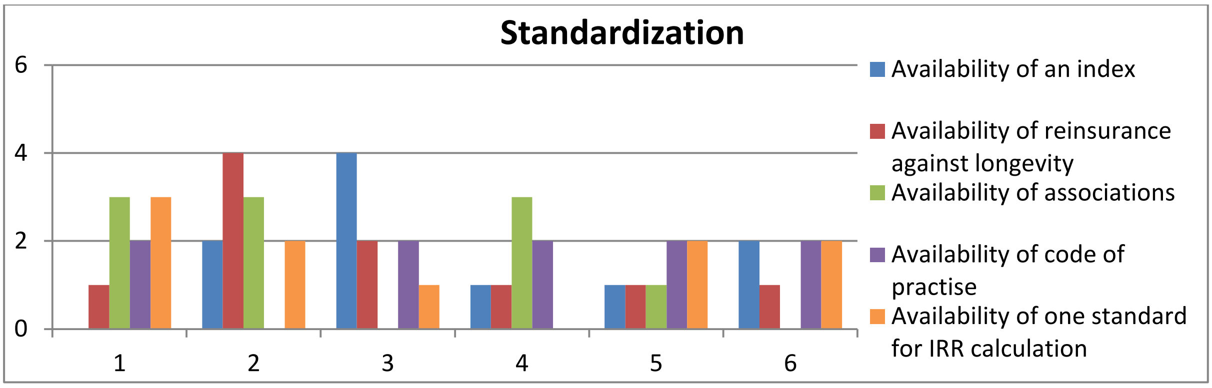

Figure 15: Importance of the preconditions classified for standardization

Source: Author's illustration

Both the *availability of an index* and the *availability of reinsurance against longevity* are regarded as a nice-to-have. ILS managers do not need a life settlement index as a benchmark and only one manager mentioned the requirement of an index to carry out index-based transactions (e.g. hedging certain age brackets). Although for investors, an index would be useful for benchmarking, as it increases transparency for investors. Reinsurance against longevity could be used to design structured products on life settlements. But most managers would not apply financial engineering, so that the benefit of reinsurance is rather small at the current stage of the market. Finally, the answers regarding the *availability of one standard for IRR calculation* coincide with the answers regarding the Fair Value method based on market data: not the method, but the input data, is the crucial issue.

In order to understand the answers of the interviewees regarding the topic education, the actual situation of the ILS managers has to be explained. As already mentioned, many managers acquired bad experience of life settlements several years ago. Although industry insiders attested year after year that the market is functioning and the problems are solved, the same mistakes occurred, and investors lost money again and again. Therefore, the attitude of ILS managers as well as the attitude of their investment committees toward life settlements is negative, and the trust in the asset class is lost. Some of them even told their

[32] One manager suggested a certification, which proves that the used data (input data for valuation) was compared with a database. He fears paying too much for a policy because of a lie.

clients that they would keep their hands off this asset class. Thus, most managers have not paid attention to the life settlement market for many years and are not up-to-date. As a consequence, many interviewees emphasized the need for trustworthy evidence as to why investing should now be a good idea. This includes convincing proof that the main problems are solved, that participants have learned from earlier mistakes, and that investments could lead to positive returns. Furthermore, independent research or good news from opinion leaders, such as regulators, auditors and academics, are required to rebuild reputation and trust in the life settlement market. Unless it is a true and fair asset class, commercialization of life settlements through ILS managers is not possible.

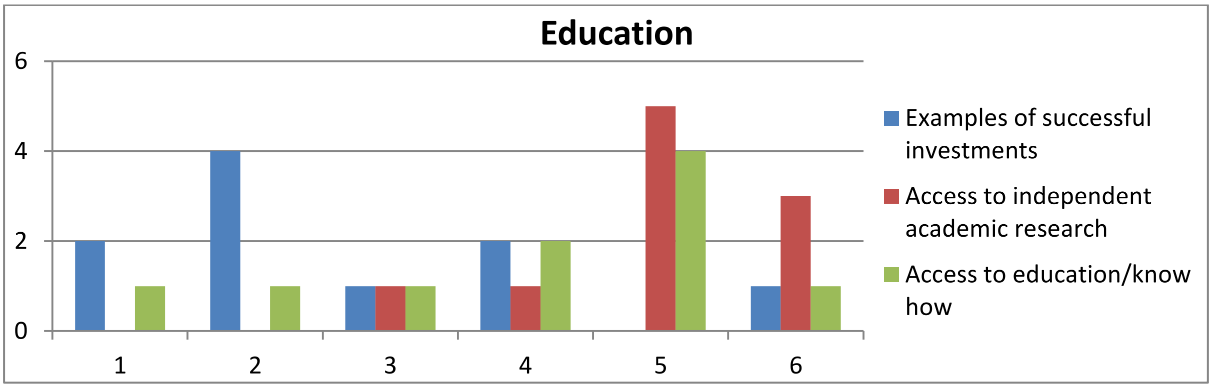

Figure 16: Importance of the preconditions classified for education

Source: Author's illustration

In line with the just discussed interviews, the multiple choice answers show the high importance of *access to independent academic research* as well, as the average ranking is the third highest of all preconditions (5.0), and only two managers ranked it below 5.0 (Figure 16). For example, many interviewees were interested in the recent research paper of Afolter, Braun and Schmeiser (2014) about current valuation practices of life settlement funds. For more than half of the participants, *access to education and know-how* is an important precondition. Education could contribute to more transparency, so that the market would get more efficient. This would make it easier for new investors/managers to step in and promote the penetration of the market. For one manager, educational work is especially needed on the investor side: for example, documents about mortality. But the interviewees think that everyone is responsible himself for obtaining information about the market and they are definitely not willing to share their know-how. Lastly, *examples of successful investments* are one of the least important issues. The participants rather want to see that the market is working than one single successful investment, which would, by the way, support a competitor who manages the investment. Besides, one manager regards a single successful example as macabre as it indicates an early death of the policyholder, and promoting such an example would lead to ethical discussions. Therefore, a statistical figure is in his opinion much more appropriate to show success than a specific investment.

3.2 The views of life settlement providers on issues noted by ILS managers

The evaluation of risks and preconditions in the previous chapter revealed various critical issues, which hinder ILS managers from investing in life settlements. Generally, the ILS managers expound quite a bad impression of the life settlement market. However, this is the view of industry outsiders, and some of the participants are not totally up-to-date about the life settlement market, as they have not followed the developments for the last five years. This is why life settlement providers were challenged with the message from the ILS managers in a second step. Industry insiders might have a different view on the market and they might be able to explain some of the issues noted by the managers. This chapter presents the results on the survey; an analysis of the differences and similarities in the views of ILS managers and life settlement providers will be conducted in Chapter 3.3.

3.2.1 Methodology

The providers were only asked about critical issues that they can actually influence. Academic research or regulation, for example, was assessed as important preconditions by the ILS managers, but these measures are not a task of life settlement providers. Consequently, the following issues were part of the survey: inaccuracy of medical underwriting, non-serious market participants, controversial reputation and non-alignment of interests. Apparently, these four issues can essentially be classified for transparency, which was assessed as the main topic by ILS managers. In addition, the providers were asked who or what is in their view principally responsible for the problem, and what they would recommend to improve the situation. In contrast to the survey among ILS managers, the survey was only conducted in the form of a standardized questionnaire via email.[33] The evaluation of the level of agreement and the level of responsibility of different market participants was done by means of multiple choice questions. As in the survey among ILS managers, the assessment of the multiple choice questions was done on a scale from one to six, with six being the highest.[34]

3.2.2 Participants

The target group of the study comprised life settlement providers. Since AA-Partners have personal contact with many providers, the first introduction between the author and possible participants was done by AA-Partners again. After the author got in contact with providers,

[33] The questionnaire is added to the appendix.
[34] 1 corresponds to “I do not agree at all”/very low responsibility whereas 6 correspond to “I do agree at all”/very high responsibility.

AA-Partners were not involved into the process anymore. In toto, the author asked 15 different providers to fill out the questionnaire; six of them participated.[35] Due to this low level of response, the survey might produce a distorted image of the view of life settlement providers. The providers who did not participate in the survey are likely to feel less responsible for the issues noted by the managers and for the market activities in general than the participating providers. However, the exploration of the view of the not-participating providers would have been beyond the scope of this paper and should be part of further research about the life settlement market.

3.2.3 Results

This chapter presents the results of the survey among life settlement providers. The analysis is subdivided into the four critical issues assessed by the ILS managers. Table 9 summarizes the descriptive statistics of the questionnaire.

Table 9: Descriptive statistics for the views of life settlement providers on selected critical issues

Inaccuracy of medical underwriting: according to many ILS managers the A/E-Ratio of medical underwriters is of paramount importance and needs to be available.	**Mean**	**Median**	**SD**	**Min**	**Max**
Do you agree?	6.0	6.0	0.0	6.0	6.0
Who should ask for A/E-Ratios from medical underwriters?					
Medical underwriter should publish A/E	5.7	6.0	0.7	4.0	6.0
Broker	1.8	1.0	1.5	1.0	5.0
Provider	3.8	4.5	2.3	1.0	6.0
Tracker / servicer	3.2	3.0	2.2	1.0	6.0
Investor / asset manager	5.2	6.0	1.9	1.0	6.0
Non-serious market participants / black sheep: according to many ILS managers the life settlement market contains black sheep which destroy the reputation and the trust into the asset class and which discourage reputable players from investing in life settlements.	**Mean**	**Median**	**SD**	**Min**	**Max**
Do you agree?	5.2	6.0	1.2	3.0	6.0
Which part of the value chain is most vulnerable to contain black sheep?					
Broker	4.8	6.0	1.9	1.0	6.0
Medical underwriter	3.2	2.5	2.3	1.0	6.0
Provider	4.7	5.0	1.4	3.0	6.0
Tracker / servicer	1.8	1.5	1.1	1.0	4.0
Investor / asset manager	4.7	6.0	2.0	1.0	6.0
Controversial reputation: according to many ILS managers the reputation of life settlements as an asset class is bad (among asset managers and investors).	**Mean**	**Median**	**SD**	**Min**	**Max**
Do you agree?	5.2	5.5	0.9	4.0	6.0
What is it that damages the reputation of life settlements the most?					
Bad performance history	5.7	6.0	0.7	4.0	6.0
Reputation of "betting on death"	2.3	2.0	1.4	1.0	5.0
Headlines	3.2	3.0	1.6	1.0	6.0
Black Sheep	5.7	6.0	0.5	5.0	6.0
Broker & Provider	3.3	4.0	1.4	1.0	5.0
Illiquidity	3.2	2.5	2.1	1.0	6.0
Intransparency	4.5	5.0	1.5	2.0	6.0

[35] A list of the participating life settlement providers can be found in the appendix.

Continuation of Table 9

Non-alignment of interests: according to many ILS managers the interest of the sell side is not aligned with the interest of the investors which is a hurdle for investing.	Mean	Median	SD	Min	Max
Do you agree?	4.3	5.5	2.1	1.0	6.0
Which part of the value chain has the largest potential to take advantage from non-alignment of interest?					
Insured / seller	3.5	3.5	2.5	1.0	6.0
Broker	5.0	6.0	1.8	1.0	6.0
Medical underwriter	3.5	4.0	1.9	1.0	6.0
Provider	3.0	3.5	1.5	1.0	5.0
Tracker / servicer	1.7	1.0	1.1	1.0	4.0

Source: Author's illustration

3.2.3.1 Inaccuracy of medical underwriting

All life settlement providers fully agree with ILS managers that A/E-Ratios are of paramount importance and need to be available (average ranking of 6.0). The providers are also in substantial agreement that either the medical underwriters should publish A/E-Ratios, or the investors (or asset managers) should ask for it. But the opinions regarding the providers are controversial: half of the providers consider themselves as being responsible for asking for A/E-Ratios, whereas the other half consider themselves as being not to at all responsible. This difference of opinion is not too bad because it is sufficient if one way to publish A/E-Ratios can be found. In addition, several providers mentioned that an association (LISA or ILMA) or an independent third party should look at each underwriter's data and publish accuracy. According to one provider, relying solely on LE reports makes underwriting for life settlements less than accurate. Some medical underwriters would still rely on the 2008 VBT, although it is not an appropriate representation of the life settlement cohort and the 2014 VBT is already available. This seems to underline the common view that medical underwriters should be reminded of their duty.

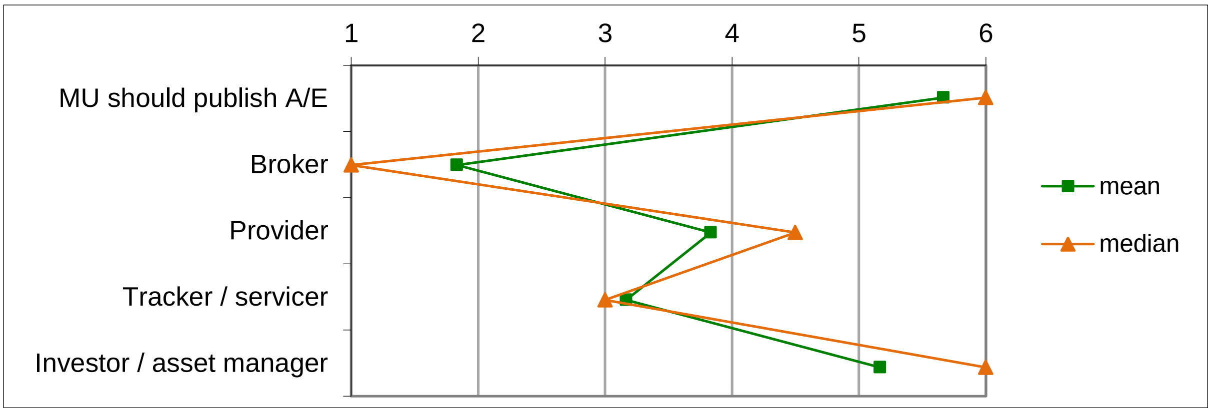

Figure 17: Responsibility of asking about A/E-Ratios from medical underwriters

Source: Author's illustration

3.2.3.2 Non-serious market participants

Another critical issue of the ILS managers is that the life settlement market contains black sheep, which destroys reputation and trust in the asset class. This discourages reputable players from investing in life settlements. Given an average ranking of 5.2 and a median of even 6.0, this message of the managers finds great approval among providers. In their opinion, within the value chain of life settlements, brokers, providers, and asset managers are all fairly vulnerable to contain black sheep, whereas trackers are not (Figure 14). For medical underwriters, the opinions are quite controversial. According to a number of providers, investors and their investment decisions mainly drive the problem of black sheep. In their opinion, the problem within the value chain is that uneducated investors choose dubious asset managers for their investment. Dubious managers choose dubious providers and, finally, these providers tend to work together with dubious brokers. Thus, investors drive behaviors with their investments. In contrast, serious market participants conduct extensive due diligence on their business partners. Therefore, a credible asset manager who chooses a serious provider should expect him to choose a serious broker, and so on. Consequently, investors should be better educated and media coverage should be increased, so that they select credible asset managers and do not work with the bad actors. Furthermore, policyholders should be educated as well in order to fight black sheep from the other end of the value chain. By doing so, the footprint of bad actors in the market will be reduced. Besides, improved transparency is regarded as a measure against non-serious market participants. One provider added that the black sheep problem has improved much in recent years, so that reputable providers are readily available today.

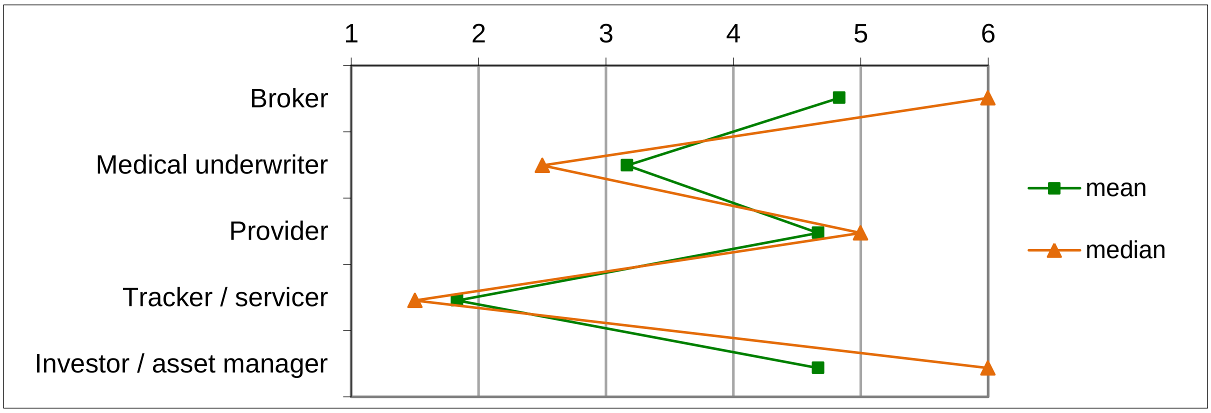

Figure 18: Vulnerability toward containing black sheep

Source: Author’s illustration

3.2.3.3 Controversial reputation

In Chapter 3.1, it was seen that the reputation of life settlements as an asset class is bad among asset managers and investors. Life settlement providers agree on this point as well. Three providers ranked it with a 6.0 (I agree at all) and no one ranked it below 4.0. In the view of providers, the bad performance history and black sheep are mainly responsible for the bad reputation, but non-transparency also exerts a considerable influence on the reputation (Figure 19). In comparison, the influence of the remaining four reasons, especially of the reputation of "betting on death," was assessed as being rather low. However, regarding illiquidity in particular, the opinions of the providers diverge strongly, since two of them ranked it at 1.0 and two at 6.0. Since there are multiple factors influencing the reputation, providers have different approaches to improve the situation. In order to improve the black sheep problem, one of them expects trade associations as well as AA-Partners not to include bad actors as members. Another one recommends that associations or third parties should make more information about the asset class available to investors and policyholders (yet, no marketing material). Yet another provider thinks the market needs to become more institutionally driven. In his view, this process has already been going on over the past few years, but it will take more time till perceptions change as well.[36] Finally, one provider added that the performance is not as bad as people believe. People would just not publish the results so as to let it be unknown when good investments have been completed.

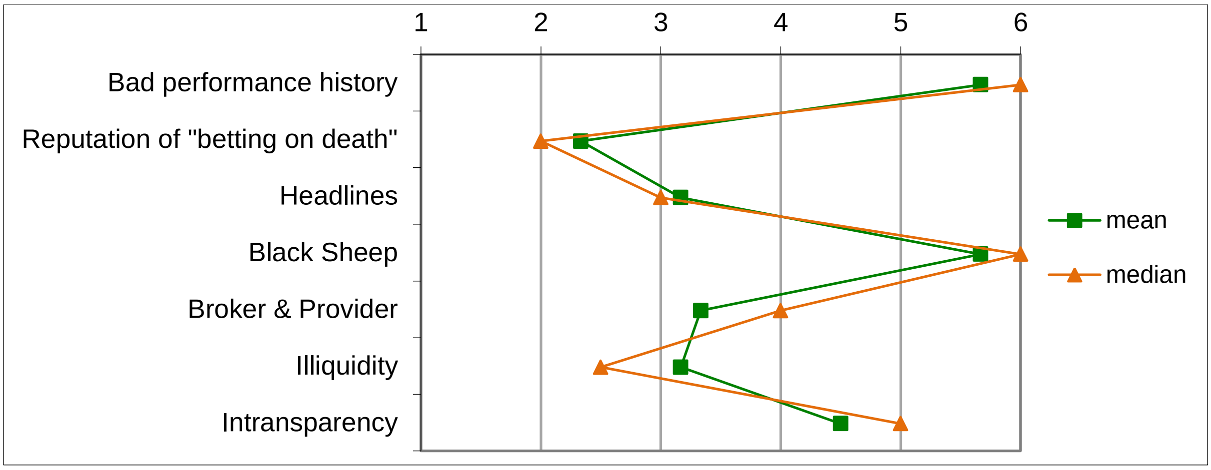

Figure 19: Attribution of the responsibility for the poor reputation of life settlements as an asset class

Source: Author's illustration

[36] According to this provider, LS are still considered a frontier market, which explains the high risk-adjusted returns currently available.

3.2.3.4 Non-alignment of interests

This is the most controversial topic among life settlement providers, and yet the average agreement with the opinions of the ILS managers is 4.3. However, two providers think non-alignment of interests does not constitute a problem at all. The broker is clearly regarded as the part of the value chain that has the greatest potential to take advantage from non-alignment of interest, only one provider believes them not to have potential. Opinions regarding the policy seller, the medical underwriter and the provider vary significantly. Some providers think the three of them have no potential, others think they have much potential; this results in an average of around 3.5. There are just a few recommendations as to how the interests of the sell side could become better aligned with the interests of the investors. The reason, therefore, is that many providers either think it is not a serious problem, or that the situation just has to be accepted.[37] In line with the black sheep problem, two providers pointed out that the situation is driven by the investor and his choice of partner. As a result, investors and asset managers need to conduct in-depth due diligence in order to select honest companies as vendors. Besides, the regulation should be changed in a way such that every state would have to force full disclosure of companies.

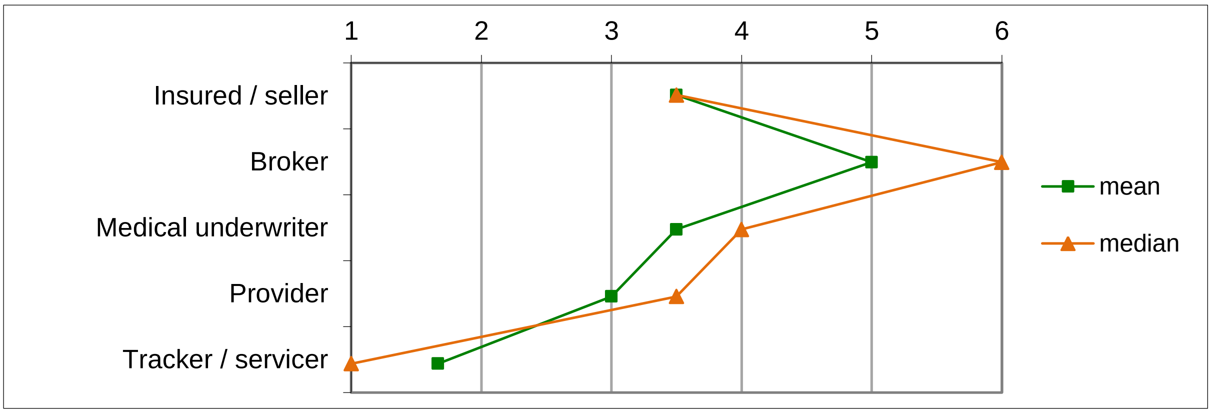

Figure 20: Potential for taking advantage from non-alignment of interests

Source: Author's illustration

3.2.3.5 Further need for improvement

At the end of the questionnaire, the providers were asked whether there are further important issues in the life settlement market, apart from the above-mentioned topics, which thwart a participation of institutional investors and which need to be addressed. The providers addressed two main issues: the size and potential growth of the market as well as consumer awareness and consumer friendliness.

[37] However, the situation has to be accepted only as long as fraud at the seller/broker level can be controlled.

Several providers regard the size of the life settlement market as being too small to support investments by large institutional investors. In their view, there is already too much capital chasing too few deals in the secondary market because some investors have strong incentives to deploy capital and, hence, bid assets above appropriate levels. As smaller institutional investors, they prefer the market to remain unchanged. If larger ILS funds start to deploy capital in this space, yields would compress, and reduce the returns for their investors. Therefore, the policy supply is viewed as a critical topic for future industry growth. One provider added that the market might become large enough for large institutional investors as baby boomers age and become more aware of the option to sell policies. As a result, two providers demand investment in consumer awareness and consumer friendliness. On the one hand, consumers should be made aware, through education, of their option to sell life insurance policies. On the other hand, the closing documents should be made simpler and more consumer friendly. Currently, many policyholders think life settlements are a complicated asset. Simplifying the contracts could make a difference, as policy sellers would potentially have a better experience. Finally, one provider criticized the lack of industry-binding trade practices across industry participants.

3.3 Analysis of the results

In Chapters 3.1 and 3.2, the views of the two sides—of industry outsiders as well as of industry insiders—on the life settlement market were reported. At first glance, the life settlement providers agree to a great extent with the issues announced by ILS managers. Hence, the view of the ILS managers on the market seems to be quite accurate. Whereas the plain answers and results of the surveys were presented in the previous chapters, these results will be interpreted in this chapter. In the first step, consistency and inconsistency within the answers of the managers, as well as similarities and differences between the answers of the managers and the providers, will be discussed. In the second step, statements and recommendations of the two sides are used in order to work out suggestions for improvement, so that life settlements can become eligible for ILS managers.

3.3.1 Consistency within the answers of ILS managers

Generally, the answers of the ILS managers show a high consistency with regard to the three subchapters: benefits, risks and preconditions. One topic that was noted several times by the managers is accurate and transparent valuation/pricing. The discussion of benefits showed that life settlements have a problem of credibility because the effective IRR has usually fallen short of the projected IRR by far. Not surprisingly, the risk of too short LE estimates was assessed as one of the most important hurdles for an investment. The managers thereby focused on the systematic underestimation of the LEs in the past. In case the LE estimates are accurate, on average the risk of too short LE estimates is not an important issue anymore, since this is the business risk. Within the preconditions, the availability of A/E-Ratios was the most important point and is again related to accurate valuation. A/E-Ratios need to be available, so that systematic underestimation through medical underwriters becomes obvious. In line with this, the incentive structure in the value chain of life settlements is a hurdle for an investment because, in the view of the managers, the sell side has no interest at all in providing accurate LE estimates. This problem gets even worse through the forward and backward integration of market participants, as explained in Chapter 2.1.2. Furthermore, the managers emphasized the importance of the availability of market data because they want to be able to report the fair value of their assets. Finally, in their view, the most important benefit of an established tertiary market is the price certainty, so that they can compare their valuation with actual market prices. All these points show that the life settlement market needs to allow an accurate valuation of the portfolio. In Chapter 2.3.2, the author raised the question whether ILS managers would also be subject to valuation risk or not. Owing to the lack of market data and accurate LE estimates, it turns out that ILS managers certainly are subject to valuation risk.

The black sheep problem is another issue that was consistently announced by the ILS managers in all parts of the survey. First of all, the reputation of the asset class, caused by non-serious market participants, is an important hurdle for investments. The behavior of dubious asset managers is likely to influence the reputation of the ILS managers who participate in the life settlement market. As a result, the managers ask for increased standardization regarding valuation and reporting what could be established through a binding code of practice. In addition, when managers were asked about the importance of associations, they mentioned the black sheep problem again. In their view, an association could ensure self-regulation, since black sheep would probably not participate in an association. The high importance of transparency, in general, also matches in this context because transparency is regarded as a good measure against black sheep.

According to the chapter on benefits, life settlements have a problem of credibility among ILS managers. This also became obvious in the chapter on risks. In the context of the bad performance history and the risk of too short LE estimates, the managers asked for a trustworthy justification that it is a true and fair asset class and that the problems of the past are solved. In the past, several instances of repricing of life settlements have taken place. Afterward, the industry claimed each time that the LE estimates are accurate, but after a while another repricing occurred. Not surprisingly, the managers want to see good news and research from independent third parties, such as academics, auditors or regulators. The confidence in paramount authorities is stronger than in industry insiders. Therefore, the engagement of independent third parties is needed to build trust in the life settlement market.

In contrast to valuation, the black sheep problem and the lack of trust, liquidity was consistently noticed as having rather low importance. Without any doubts, higher liquidity is always desirable, but liquidity does not seem to be one of the main issues. Both, the risk illiquidity (median of 3.0) and the precondition “established tertiary market” (median of 4.0) were valued as being quite low. The reason therefore is that ILS managers would adapt the structure of the investment and the target clients to the characteristics of the asset. Hence, they would create a fund with a long redemption term, rather than high cash reserves, and strive for family offices as investors. In this way, a manager does not often need to trade life settlements. Generally, the product life settlements itself seems to be all right for ILS managers. Neither the structure nor the long investment horizon is an important hurdle for an investment, and the managers neither demand reinsurance against longevity nor the availability of bridge financing. The fact that several managers make investments within five years conditional on the developments in the market underlines this finding.

The views of the managers on the topic of exemplary investments seem to be inconsistent. On the one hand, the managers ask for good news about the asset class and justification that investments could lead to positive returns. On the other hand, with an average ranking of 2.7, examples of successful investment are unimportant for them. This contrast has several reasons. First of all, the good news has to come from opinion leaders. But an example of a successful investment would come from a single asset manager, who could have manipulated his returns or who might just have been lucky. In addition, a single successful investment is regarded as macabre, as it signifies an early death of an individual. The managers rather like to see statistical numbers, for example, the A/E-Ratio, or a general report from the regulator.

3.3.2 Agreement and disagreement between ILS managers and life settlement providers

In general, the views of the two sides on the life settlement market—or rather on critical issues in the market—are very similar. Every issue announced by the managers found approval among the providers. However, this comparison is based on average figures. Not all providers agree to the same extent with the ILS managers. Considering that only six out of 15 providers returned the questionnaire, there are probably also providers in the market who have quite a different view of the market.

In the final part of the questionnaire, several providers expressed doubts as to whether the life settlement market is large enough to support investments by large institutional investors. The amount of life insurance policies suitable for the life settlement market is limited. On the one hand, against the background of the market developments before the financial crisis, these considerations are reasonable. Owing to the strong inflow of capital into the life settlement market, market participants bid prices far above appropriate levels and many life insurance policies which are not suitable as life settlements (e.g. no medical impairment) were traded. As a result, many investors lost money. On the other hand, providers probably just like to keep larger investors out of the market, so that their returns or the returns of current investors are not reduced. In case more capital is deployed in the market, yields would naturally compress. It is the policyholders who would probably profit, as the demand for their life insurances would increase. Nevertheless, these doubts are in line with statements of several ILS managers. In their opinion, the life settlement market neither offers much additional investment opportunities nor a high potential for growth. But a market entry needs to be worth the effort. As a result, the market might be too small for them to invest in. In conclusion, life settlement providers consider the policy supply to be a critical topic for future industry growth. Therefore, educating policyholders and increasing their awareness to sell their policies is the key to a higher policy supply and future industry growth.

As previously explained, ILS managers seek good news about the asset class as well as independent research and education of investors. According to many providers, the black sheep problem is driven by irresponsible investors and their choice of asset managers. Although just two of these providers expressed this, educating investors seems to be a common request as well. Investors are able to make smart decisions only in case they know that there are dubious asset managers in the market and the criteria that are important for their choice. The recommendations of two providers to make more information from the associations or independent third parties available are also in line with the view of the managers. Consequently, associations could take the lead to either educate investors by themselves or work together with independent third parties, for example, universities, to provide more (educational) information about the asset class.

The managers and providers also agree that the reputation of life settlement is bad. On top of that, there is also agreement that bad performance history, black sheep and non-transparency are mainly responsible for the bad reputation. Furthermore, both sides regard reputation of “betting on death,” and illiquidity not to be an important issue for reputation. But there is disagreement about the influence of headlines. Only one provider thinks headlines strongly damage the reputation of the asset class and also asks for better media coverage, which is in line with the managers. But all the other providers consider headlines to have a low influence on the reputation. In contrast, the managers strongly require good news about the asset class, so that there are good reasons for an investment and life settlements would not need that much justification toward the client anymore.

Apart from good news, the view on non-alignment of interests also showed differences between the managers and the providers. Although the average approval of the providers is quite high (4.3), two of them do not think that the interests of the sell side are not aligned with the interests of the investors. In addition, other providers have the opinion that the situation just has to be accepted, or that investors and asset managers are responsible for selecting honest partners and appropriate policies. This level of apathy is surprising. Of course, providers only have to conduct due diligence on their business partners, and are not responsible for the behavior of other market participants. But one would expect them to be more interested in changing the framework conditions, so that the sell side does not have much potential anymore to take advantage from non-alignment of interests. In case they do not profit from these conditions, they should welcome changes in the framework conditions. Generally, the providers feel almost responsible only for their value chain and have recommendations as to how other parties could improve critical issues, but not what actions they could take. In addition, the low level of response to the survey strengthens the impression that providers do not feel that responsible for critical issues in the market. Though, steps for improving the issues addressed should be taken by third parties, like associations, auditors, the regulator, academics, etc. Consequently, fee structures on the sell side have to be changed so that the sell side, especially brokers, has an incentive to provide accurate LEs. The efforts of the association ILMA to achieve full disclosure of all fees in life settlement transactions would support such a change of the fee structures (Gatzert, 2010). Affolter, Braun and Schmeiser (2014) recommend a fee structure focused on realized death benefits rather than fund volume for asset managers. Such an incentive-compatible fee structure might also be appropriate to incentivize brokers to provide accurate medical records.

3.3.3 Suggestions for improvement

Based on the survey among ILS managers and life settlement providers, the main issues that should be tackled in order to make the life settlement market attractive to a wider range of investors are pricing, black sheep and reputation/trust. In this chapter, specific suggestions for improvement of the three issues will be provided. Hereby, one has to keep in mind that improving transparency is the most important measure to solve these issues and to make life settlements eligible for ILS managers. Not surprisingly, many of the following suggestions are closely related to transparency.

First of all, because of structural underestimations of LEs in the past, A/E-Ratios of medical underwriters need to be published, preferably through the medical underwriters themselves. Furthermore, market data needs to be publicly available, so that asset managers are able to accurately price their life settlement portfolio. But ILS managers not only want to be sure that their valuation is accurate, they also want to see transparent pricing of the other market participants. Therefore, providers as well as other fund managers should transparently declare the information used for policy valuation.

Second, in order to weed black sheep out of the market, binding practices across industry participants regarding valuation and reporting have to be imposed by the regulator and controlled by auditors. Auditors should also cross-check input data for the valuation of life settlements. In addition, a strong and popular association could increase self-regulation of black sheep, as participation in an association is an indicator for a serious partner. Associations should also better educate investors as well as policyholders so that they choose serious companies as partner and avoid black sheep going forward. Finally, providers need to strengthen due diligence on brokers and fee structures need to be introduced which align the interests of the sell side with the interests of the investor.

Thirdly, the reputation of the asset class among asset managers and investors is bad and the industry also lacks trust. Efforts to improve the situation have to come mainly from opinion leaders, such as auditors, academics or the regulator, because industry insiders have already broken their assurances—for example, regarding the accuracy of the LE estimations. The ILS managers would like to see good news about the asset class and independent research from these opinion leaders, which proof the recent changes in the market and give trustworthy justifications that life settlements now qualify for an investment. Good news is important to improve the reputation of the asset class among asset managers as well as clients. Furthermore, independent academic or third party research could build trust—for example, by publishing statistical tests. Unless it is a true and fair asset class, commercialization of life settlements through ILS managers is not possible.

4 Conclusion

The asset class insurance-linked securities has seen strong demand in recent years, and established ILS investment funds have been looking for new investment opportunities in the ILS field. Although life settlements belong to this asset class insurance-linked securities, ILS managers have hardly been active in the life settlement market so far. The aim of this paper was an evaluation of the reasons for this phenomenon and identifying obstacles that thwart ILS managers from becoming active in the life settlements area. For this purpose, interviews with seven ILS managers were conducted, while three other managers filled out the standardized questionnaire. All the participants together manage insurance-linked securities worth almost half of the total assets held by dedicated ILS funds. As a second step, life settlement providers were challenged with the critical issues noted by the ILS managers in order to compare the views of industry insiders with those of industry outsiders. Of the 15 providers queried, six participated in the survey. In this way, the paper intends to provide suggestions for improvements to make the life settlement market more attractive to ILS managers as well as all other investors interested in trading in life insurance policies.

ILS managers have quite a bad impression of the life settlement market and many obstacles need to be removed in order to make investments in life settlements attractive. Although the managers have different focuses, the critical issues they have noted are very similar. Because of structural underestimation of LE in the past the accuracy of medical underwriting needs to improve. Black sheep should be weeded out of the market, since they exert a bad influence on the reputation of all other market participants. The interests of the sell side need to be better aligned with the interests of the buy side, so that there is an incentive to provide accurate LE. Life settlements need to be transparently priced and, finally, trust in the asset class has to be built up. For the survey among life settlement providers, only critical issues were chosen that can be influenced by the providers. As a result, the following issues—inaccuracy of medical underwriting, black sheep, bad reputation and non-alignment of interests—were all part of the survey. All of these can be essentially classified under the topic transparency, which was assessed to be the main hurdle for an investment. The life settlement providers agree to a great extent with the ILS managers that these four issues constitute a problem for investors. The analysis and comparison of the answers of two sides revealed distinct suggestions for improvement. The main issues that should be tackled until life settlements become eligible for ILS managers are pricing, black sheep and reputation. In order to make transparent and accurate pricing possible, A/E-Ratios of medical underwriters need to be published, and market data for the valuation needs to be available—or, rather, policies need to be priced on the basis of market data. Black sheep have to be weeded out of the market by educating policyholders as well as investors and by introducing fee structures that align the interests of the sell side, especially those of the brokers, with the interests of the investors. Lastly, the poor reputation of, and the lack of trust in the life settlement industry could be improved through good news about the asset class and independent research from opinion leaders such as academics, auditors and regulators.

The described suggestions aim to make the life settlement market more attractive to ILS managers. This goal implies that the life settlement industry seeks market growth and that investors want to access the market. However, the survey among life settlement providers revealed that some of the current market participants would prefer that the market should not change substantially because they can profit from existing inefficiencies and returns would generally decrease if more investors enter the market. Any attempt to enhance transparency and standardization would certainly arouse opposition from existing market participants. According to the ILS managers, the number of investors interested in life settlements is limited; hence, they might find it difficult to raise enough money. However, if the market becomes attractive to wider range of investors, there will surely be increased demand from their customer base as well. In addition, current investors would profit as well from greater transparency, education, etc. in the market. Although life settlement providers supported the ILS managers in their views on the market, we have to allow for the fact that only six out 15 asked providers participated in the survey. The participating providers are likely to have a different view on the critical issues noted by the managers, indicating that the results of the survey among life settlement providers are distorted. Besides, there are already attempts to make the market more transparent (e.g. by AA-Partners). But this is a process that takes much time. Some of the issues revealed in this paper might become obsolete as soon as these attempts make a significant impact on the life settlement market.

Since this paper only provides suggestions for improvements, as a next step it should be analyzed how these suggestions could be implemented in detail: for example, which fee structure could encourage brokers to supply medical records that enable medical underwriters to provide accurate LE estimates. For this purpose, a comparison of the life settlement market with the private equity market could be valuable. The private equity market is quite non-transparent as well, and firms are improving their disclosure of fees and expenses (Tan, 2015). Thus, the private equity market could serve as a model for the life settlement market. The supply of policies should also be subject to further research since it was identified as a crucial factor by the providers as well as the managers. On the one hand, it should be investigated whether the policy supply is sufficient to support large-scale investments by ILS investment funds. This is a precondition for market growth since strong demand led to problems in the life settlement market before the financial crisis. On the other hand, it needs to be worked out as to how the policy supply can be increased. Finally, it would be very interesting to pursue the reservations of the providers about a market entry of large institutional investors further. Thus, the associated benefits and risk for the life settlement industry as well as the attitude of current life settlement market participants towards a market entry of such investors could be investigated. Within such an analysis one should also try to reach the life settlement providers who were not willing to participate in the survey and establish their view on the critical issues revealed in this paper.

Appendix

A. Participating ILS managers

During May and June 2015 interviews with the following ILS managers were conducted (randomly ordered):

Michael Stahel	LGT	personal interview
Sandro Kriesch & Brian Lowry	Twelve Capital	personal interview
Daniel Ineichen	Schroders	personal interview
Stefan Müller & Karsten Brohmann	Solidum	personal interview
Marcel Grandi	Credit Suisse	phone interview
Rainer Grünig & Dirk Schmelzer	Plenum	personal interview

Additionally, one further phone interview and three email questionings of ILS managers were conducted.

B. Questionnaire for ILS managers

Life settlements as an alternative asset class

Interview questions

Master´s Thesis: University of St. Gallen

How to make life settlements attractive to a wider range of investors, in particular Insurance Linked Securities Funds.

Christof Meier

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May 2015

1 Introduction

1.1 About life settlements

Due to ethical concerns with regards to viatical settlements in the 1990s and bad life expectancy estimations, the secondary market for US life insurance policies used to be controversial. However the situation changed significantly. Nowadays, medical underwriters have improved their estimations and transparency in the market has increased. Ethics isn't a topic any more, life settlements are even considered as social responsible investment, and affordable reinsurance solutions against longevity risk are available. Nevertheless, almost only specialised life settlement funds provide access to this asset class.

1.2 Aim of the paper

Life settlements show low correlation to other asset classes and a relatively high level of projected IRR. Therefore, it seems to be an attractive alternative asset class, especially in times of historical low interest rates. However, established ILS investment funds have hardly been active in the life settlement market so far.

The aim of this paper is an evaluation about the reasons for this contrast and ways to identify obstacles which withstand ILS managers to become active in the life settlements area. For this purpose interviews with ILS managers will be conducted.

2 Interview

2.1 Method

ILS managers are asked to participate in a structured interview. The participating persons or firms will not be mentioned by name in the thesis. In return the participants will receive a summary of the results. If desired they also obtain the whole master´s thesis as soon as the thesis is approved.

2.2 Interview questions

A. General questions regarding the asset manager and the investors

- How large is your company?

a.) up to 5 employees	☐	d.) 20-50 employees	☐
b.) 6-10 employees	☐	e.) more than 50 employees.	☐
c.) 11-20 employees	☐	f.) NA	☐

- In which range are your company's assets under Management?

a.) less than USD 100 Mio	☐	d.) USD 500-1000 Mio	☐
b.) USD 100-250 Mio	☐	e.) larger than USD 1000 Mio.	☐
c.) USD 250-500Mio	☐	f.) NA	☐

- How much of your assets in % are 'life' related investments? _____

  How much is

a.) embedded value	_____	d.) XXX	_____
b.) extreme mortality	_____	e.) other.	_____
c.) longevity risk	_____		

- How is your investors' base structured expressed in % of total assets?

a.) pension funds	_____	d.) insurance companies	_____
b.) family offices	_____	e.) banks	_____
c.) private clients	_____	f.) other	_____

- In which of the following risk and reward profile in % do your investors want to invest? (CESR´s synthetic risk and reward indicator, measured in terms of volatility p.a.)

a.) category 1 (0 – 0.5%)	_____	e.) category 5 (10 – 15%)	_____
b.) category 2 (0.5 – 2%)	_____	f.) category 6 (15 – 25%)	_____

c.) category 3 (2 – 5%) _____ g.) category 7 (>25%) _____
d.) category 4 (5 – 10%)_____

- Where are your investors based expressed in % of total assets?
  a.) North America _____ d.)EMEA (excluding Europe) _____
  b.) Latin America _____ e.) APAC _____
  c.) Europe _____

- Are you actively searching for new asset classes / investment opportunities? Please indicate necessity of new asset classes between 1 (very low necessity) and 6 (very high necessity).

	1	**2**	**3**	**4**	**5**	**6**
a.) In the short run	☐	☐	☐	☐	☐	☐
b.) In the long run	☐	☐	☐	☐	☐	☐

B. Current experience of the asset manager regarding life settlements (LS)

	1	**2**	**3**	**4**	**5**	**6**
- What do you know about LS? Please indicate your knowledge between 1(very low knowledge) and 6 (very high knowledge).	☐	☐	☐	☐	☐	☐

- Did you already invest in LS? Yes: ☐ No: ☐

C. For an asset class as life settlements qualifies for investment a few preconditions need to be met. How important are the following topics, so how important are the following preconditions until life settlements could become eligible (1 = very low importance; 6 = very high importance).

	1	**2**	**3**	**4**	**5**	**6**
i. <u>Transparency:</u>						
- Fair value valuation method based on market data available (reviewed, so a serious solution)	☐	☐	☐	☐	☐	☐

- Availability of actual to expected results from medical underwriters (A/E-Ratio)	☐	☐	☐	☐	☐	☐
- Availability of market information						
▪ Traded volumes (face values)	☐	☐	☐	☐	☐	☐
▪ Traded volume (purchase prices)	☐	☐	☐	☐	☐	☐
▪ IRR levels	☐	☐	☐	☐	☐	☐
- Availability of fund ratings or a sort of independent review opinion	☐	☐	☐	☐	☐	☐
ii. <u>Liquidity:</u>						
- Established and working market for resale of earlier bought policies (tertiary market)	☐	☐	☐	☐	☐	☐
- Availability of exchanges for the sale of portfolios	☐	☐	☐	☐	☐	☐
- Availability of blocks of policies	☐	☐	☐	☐	☐	☐
- Availability of credit lines for premium payments/bridge finance	☐	☐	☐	☐	☐	☐
iii. <u>Standardization:</u>						
- Availability of an index	☐	☐	☐	☐	☐	☐
- Availability of reinsurance against longevity	☐	☐	☐	☐	☐	☐
- Availability of associations	☐	☐	☐	☐	☐	☐
- Availability of code of practise (summary of best industry practises)	☐	☐	☐	☐	☐	☐
- Availability of one standard for IRR calculation	☐	☐	☐	☐	☐	☐
iv. <u>Education:</u>						
- Examples of successful investments	☐	☐	☐	☐	☐	☐

- Access to independent academic research	☐	☐	☐	☐	☐	☐
- Access to education/know how	☐	☐	☐	☐	☐	☐

D. What do you think are the main benefits of LS in general?

E. What would hinder you to invest in life settlements?

F. Which structure would you prefer in order to invest into LS?

- Own or third-party products
- Funds, index investing or structured products
- Adding LS to an existing product or creating a new product just with LS
- For which of your investors would life settlement investments be most likely suitable?

a.) pension funds	☐	d.) insurance companies	☐
b.) family offices	☐	e.) banks	☐
c.) private clients	☐	f.) ________________________	

G. Do you have any other comments with regard to LS?

H. Are there any other insurance linked securities apart from your current investments you consider investing in?

Multiple choice answers for interview questions D. and E:

In order to reach more granularity the interviewee were asked to fill out the following multiple choice questions after they have mentioned own benefits and risks:

What do you think are the main benefits of LS in general? Please indicate importance between 1 (very low importance) and 6 (very high importance).

	1	2	3	4	5	6
- Level of projected IRR	☐	☐	☐	☐	☐	☐
- Diversification of existing portfolios	☐	☐	☐	☐	☐	☐
- Low correlation to other asset classes	☐	☐	☐	☐	☐	☐
- High growth potential	☐	☐	☐	☐	☐	☐
- Existing inefficiencies can be exploited	☐	☐	☐	☐	☐	☐
- Interesting story, access to new investors	☐	☐	☐	☐	☐	☐
- Additional investment opportunities	☐	☐	☐	☐	☐	☐
- Ethical investment	☐	☐	☐	☐	☐	☐

What would hinder you to invest in life settlements? Please indicate importance between 1 (very low importance) and 6 (very high importance).

	1	2	3	4	5	6
- Reputation of asset class (betting on death)	☐	☐	☐	☐	☐	☐
- Reputation of asset class (unserious market participants)	☐	☐	☐	☐	☐	☐
- Reputation of asset class (bad performance history)	☐	☐	☐	☐	☐	☐
- Loss of current investors	☐	☐	☐	☐	☐	☐
- Not the right structures available	☐	☐	☐	☐	☐	☐

- Relatively long investment horizon (average LE for closing = 8 years)	☐	☐	☐	☐	☐	☐
- Illiquidity	☐	☐	☐	☐	☐	☐
- Information asymmetry (reliance on life settlement provider)	☐	☐	☐	☐	☐	☐
- Risk of too short LE estimates	☐	☐	☐	☐	☐	☐
- Credit risk of the primary insurer	☐	☐	☐	☐	☐	☐
- Lack of expertise regarding LS (of both your company and your clients)	☐	☐	☐	☐	☐	☐

C. Participating life settlement providers

During July and August 2015 the following life settlement providers participated in the study (randomly ordered):

Anna Bailey	RiverRock Group	email questioning
Marshall Abbott	Institutional Life Services, LLC	email questioning
Gunnar Teltow	Vida Capital	email questioning
Ken Klein	FairMarket Life Settlements Corp.	email questioning
Zohar Elhanani	Legacy Benefits	email questioning
Steven Shapiro	Q Capital Strategies	email questioning

D. Questionnaire for life settlement providers

Insurance linked asset managers and life settlements

Questionnaire

Master´s thesis: University of St.Gallen

How to make life settlements attractive to a wider range of investors, in particular Insurance Linked Securities Funds.

Christof Meier

christof.meier@student.unisg.ch

July 2015

1. Introduction

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Due to ethical concerns with regards to viatical settlements in the 1990s and bad life expectancy estimations, the secondary market for US life insurance policies used to be controversial. However the situation changed significantly. Nowadays, medical underwriters have improved their estimations and transparency in the market has increased. Ethics isn't a topic any more, life settlements are even considered as social responsible investment, and affordable reinsurance solutions against longevity risk are available. Nevertheless, almost only specialised life settlement funds provide access to this asset class.

1.2 Aim of the paper

Life settlements show low correlation to other asset classes and a relatively high level of projected IRR. Thus, it seems to be an attractive alternative asset class, especially in times of historical low interest rates. However, established ILS investment funds have hardly been active in the life settlement market so far. The aim of this study is an evaluation about the reasons for this contrast and to identify obstacles which withstand ILS managers to become active in the life settlements area.

In a first step, structured interviews with ILS managers were conducted. These interviews revealed that there are four main obstacles which hinder ILS manager from investing in life settlements. In the second step life settlement provider are asked whether they share the view of the ILS managers and what they would recommend to improve the situation.

2. Questionnaire

2.1 Method

Life settlement providers are asked to participate in a short questionnaire. The participating persons or firms will not be mentioned by name in the thesis. In return the participants will receive a summary of the results. If desired they also obtain the whole master´s thesis as soon as it is approved.

2.2 Questions

A. Accuracy of medical underwriting: according to many ILS managers the A/E-Ratio of medical underwriters is of imperial importance and needs to be available.

	1	2	3	4	5	6
- Do you agree? (1 = I do not agree at all, 6 = I totally agree)	☐	☐	☐	☐	☐	☐

- Who should ask for A/E-Ratios from medical underwriters? Please indicate responsibility between 1 (very low responsibility) and 6 (very high responsibility).

	1	2	3	4	5	6
▪ Medical underwriter should publish A/E	☐	☐	☐	☐	☐	☐
▪ Broker	☐	☐	☐	☐	☐	☐
▪ Provider	☐	☐	☐	☐	☐	☐
▪ Tracker / servicer	☐	☐	☐	☐	☐	☐
▪ Investor / asset manager	☐	☐	☐	☐	☐	☐
▪ Other:	☐	☐	☐	☐	☐	☐

- Is there a reasonable alternative way which could in your opinion lead to an improved availability of A/E results (f.i. LISA obliges MU to publish A/E results, etc.)?

B. Unserious market participants / black sheep: according to many ILS managers the life settlement (LS) market contains black sheep which destroy the reputation and the trust into the asset class and which discourage well reputed players from investing in LS.

	1	2	3	4	5	6
- Do you agree? (1 = I do not agree at all, 6 = I totally agree)	☐	☐	☐	☐	☐	☐

- Which part of the value chain is most vulnerable to contain black sheep? Please indicate vulnerability between 1 (very low vulnerability) and 6 (very high vulnerability).

	1	2	3	4	5	6
▪ Broker	☐	☐	☐	☐	☐	☐
▪ Medical underwriter	☐	☐	☐	☐	☐	☐
▪ Provider	☐	☐	☐	☐	☐	☐
▪ Tracker / servicer	☐	☐	☐	☐	☐	☐
▪ Investor / asset manager	☐	☐	☐	☐	☐	☐
▪ Other:	☐	☐	☐	☐	☐	☐

- Which approach would you recommend in order to avoid black sheep going forward (f.i. a black board, a rating, improved transparency etc.)?

C. Reputation: according to many ILS managers the reputation of LS as an asset class is bad (among asset manager and investors).

	1	2	3	4	5	6
- Do you agree? (1 = I do not agree at all, 6 = I totally agree)	☐	☐	☐	☐	☐	☐

- What damages the reputation of LS most? Please indicate influence between 1 (very low influence) and 6 (very high influence).

	1	2	3	4	5	6
▪ Bad performance history	☐	☐	☐	☐	☐	☐
▪ Reputation of “Betting on death“	☐	☐	☐	☐	☐	☐
▪ Headlines	☐	☐	☐	☐	☐	☐
▪ Black sheep	☐	☐	☐	☐	☐	☐
▪ Broker & Provider	☐	☐	☐	☐	☐	☐
▪ Illiquidity	☐	☐	☐	☐	☐	☐
▪ Intransparency	☐	☐	☐	☐	☐	☐
▪ Other:	☐	☐	☐	☐	☐	☐

- What would you recommend in order to improve the reputation of LS?

D. Non-alignment of interests: according to many ILS managers the interest of the sell side is not aligned with the interest of the investors which is a hurdle for investing.

	1	2	3	4	5	6
- Do you agree? (1 = I do not agree at all, 6 = I totally agree)	☐	☐	☐	☐	☐	☐

- Which part of the value chain has the largest potential to take advantage from non-alignment of interest? Please indicate potential between 1 (very low potential) and 6 (very high potential).

	1	2	3	4	5	6
▪ Insured / seller	☐	☐	☐	☐	☐	☐

▪ Broker	☐	☐	☐	☐	☐	☐
▪ Medical underwriter	☐	☐	☐	☐	☐	☐
▪ Provider	☐	☐	☐	☐	☐	☐
▪ Tracker / servicer	☐	☐	☐	☐	☐	☐
▪ Other:	☐	☐	☐	☐	☐	☐

- What would you recommend in order to better align the interest of the sell side with the interest of the investors?

E. Beside the above mentioned areas and topics are there further important issues in the LS market which in your opinion withstand a participation of institutional investors and which should be addressed?

List of Supports and Aids

A. Discussions

Discussion 1

Date: February 16, 2015

Person: Beat Hess, AA-Partners

Type: Personal meeting

Content: Introduction of the topic of the Master's thesis

Discussion 2

Date: March 02, 2015

Person: Beat Hess, AA-Partners and Gabriel Mäder, AA-Partners

Type: Personal meeting

Content: Valuation of life settlements

Discussion 3

Date: March 26, 2015

Person: Beat Hess, AA-Partners and Gabriel Mäder, AA-Partners

Type: Personal meeting

Content: Reinsurance solutions for life settlements and interviews with ILS manager

Discussion 4

Date: May 06, 2015

Person: Beat Hess, AA-Partners

Type: Personal meeting

Content: Questionnaire for ILS manager

Discussion 5

Date: July 02, 2015

Person: Beat Hess, AA-Partners

Type: Personal meeting

Content: Results of the survey among ILS managers and questionnaire for life settlement providers

B. Proofreaders

For the purpose of proofreading the English writing, the English correction service for students called Topcorrect (www.topcorrect.com) was used. In addition, my brother Adrian Meier did also proofread the thesis.

References

Literature

AA-Partners. (2014a). *AAP Life Settlement Market Review (November 2014).* Zurich: AA-Partners.

AA-Partners. (2014b). *Gehandelte Lebensversicherungen – Vorlesungsunterlagen Fachhochschule Zug.* Zürich: AA-Partners.

AA-Partners. (2015a). *AAP Life Settlement Roundtable – January 22nd 2015.* Zurich: AA-Partners.

AA-Partners. (2015b). *AAP Life Settlement Valuation – Manual (Version 4.0).* Zurich: AA-Partners.

ACLI. (2013). *Life Insurers Factbook 2013.* Washington: American Council of Life Insurers.

Affolter, S., Braun, A., & Schmeiser, H. (2014). *Life Settlement Funds: Current Valuation Practices and Areas for Improvement (Working Paper on Risk and Insurance No. 143).* St. Gallen: University of St. Gallen.

Barroso, M. M., Davó, N. B., & Resco, C. M. (2013). Portfolio Diversification with Life Settlements: An Empirical Analysis Applied to Mutual Funds. *The Geneva Papers, 38,* 22–42.

Beatty, A. (2015). What advantages can collateralised reinsurance bring to the ILS mix? In Clear Path Analysis (Ed.), *Insurance Linked Securities for Institutional Investors 2015* (pp. 38–41). London: Clear Path Analysis.

Blake, D., & Harrison, D. (2008). *And death shall have no dominion.* London: Pensions Institute.

Braun, A., Gatzert, N., & Schmeiser, H. (2012). Performance and Risks of Open-End Life Settlement Funds. *Journal of Risk and Insurance, 79 (1),* 193–229.

Butler, J., & Ramseier, U. (2014). Insurance-linked securities capital: reinsurance industry threat or saviour? In Clear Path Analysis (Ed.), *Insurance Linked Securities for Institutional Investors 2014* (pp. 17–20). London: Clear Path Analysis.

BVZL. (2013). *Best Practices: Guidelines for Investors and suggested Best Practice Standards for Professionals in the US Life Settlement Investment Industry.* Unknown: BVZL.

Conning. (2011). *Life Settlements - An Asset Class Resets.* Hartford: Conning Research & Consulting.

Cummins, D. J., & Trainar, P. (2009). Securitization, Insurance and Reinsurance. *The Journal of Risk and Insurance, 76 (3),* 463–492.

Cummins, D. J., & Weiss, M. A. (2009). Convergence of Insurance and Financial Markets: Hybrid and Securitized Risk-Transfer Solutions. *Journal of Risk and Insurance, 76 (3),* 493–545.

Doherty, N., & Singer, H. (2002). *The benefits of a secondary market for life insurance (Working Paper No. 02-41).* Philadelphia: The Wharton Financial Institutions Center.

Evans, B. D., Russell, D. T., & Sager, T. W. (2013). Operational, Legal and Tax Issues in Life Settlement Transactions. *Journal of Insurance Regulation,* 101–118.

Frith, M., & McNealy, S. (2006). Life settlements: Product-flow opportunities and constraints. *The Journal of Structured Finance, 12 (2),* 30–34.

Gatzert, N. (2010). The Secondary Market for Life Insurance in the United Kingdom, Germany and the United States: Comparison and Overview. *Risk Management and Insurance Review, 13 (2),* 279–301.

Ingraham, H. G., & Salani, S. S. (2004). Life Settlements as a Viable Option. *Journal of Financial Service Professionals, 58 (5),* 72–76.

Januário, A. V., & Naik, N. Y. (2013). *Empirical Investigation of Life Settlements: The Secondary Market for Life Insurance Policies (Working Paper June 10, 2013).* London: London Business School.

Kamath, S. (2006). *U.S. Life Insurance — Perspectives on the Life Settlement Market.* New York: Bernstein Research.

Kinney, R. O., & Mohoric, E. (2008). *Life Settlements Mortality Considerations and Their Effect on Portfolio Valuation.* Plymouth: Phoenix Life Solution.

Kohli, S. (2006). Pricing Death: Analysing the Secondary Market of Life Insurance Policies and its Regulatory Enviroment. *Buffalo Law Review, 54,* 101–142.

Kusche, P. (2013). The New Alternative Asset: Insurance-Linked Securities. *The Journal of Structured Finance, 19 (2),* 52–58.

Lohmann, D. (2015). What new perils can innovate the CAT bond offering? In Clear Path Analysis (Ed.), *Insurance Linked Securities for Institutional Investors 2015* (pp. 24–28). London: Clear Path Analysis.

Mott, A. R. (2007). New Swaps to Hedge Alpha and Beta Longevity Risks of Life Settlement Pools. *The Journal of Structured Finance, 13 (2),* 54–61.

Ortiz, C. E., Stone, C. A., & Zissu, A. (2008). Securitization of senior life settlements: managing interest rate risk with a planned duration class. *Journal of Financial Transformation, 23,* 35–42.

Perera, N. & Reeves, B. (2006). Risk Mitigation for Life Settlements. *The Journal of Structured Finance, 12 (2),* 50–54.

Rosenfeld, S. (2009). *Life Settlements: Signposts to a Principal Asset Class (Working Paper).* Philadelphia: The Wharton Financial Institution Centre.

Schroders. (2014). *Schroders Insurance Linked Securities Brochure.* London: Schroders Investment Management Limited.

Seitel, C. (2006). Inside the life settlement industry: An institutional investor´s perspective. *The Journal of Structured Finance, 12 (2),* 38–40.

Seitel, C. (2007). Inside the Life Settlement Industry: A Provider's Reflections on the Challenges and Opportunities. *The Journal of Structured Finance, 13 (2),* 70–75.

Stahel, M. (2015). Will the hedge fund sponsored model spur on larger transactions? In Clear Path Analysis (Ed.), *Insurance Linked Securities for Institutional Investors 2015* (pp. 42–44). London: Clear Path Analysis.

Stone, C., & Zissu, A. (2006). Securitization of senior life settlements: Managing extension risk. *The Journal of Derivatives, 13 (3),* 66–72.

Stone, C., & Zissu, A. (2007). The return on a pool of senior life settlements. *The Journal of Structured Finance, 13 (2),* 62–69.

Swiss Re. (2009). The role of indices in transferring insurance risks to the capital markets. (Swiss Re, Ed.) *Sigma: Insurance Research, 4/2009*.

Swiss Re. (2015). *Insurance Linked Securities market update July 2015.* Zurich: Swiss Re.

U.S. Securities and Exchange Commission. (2010). *Life Settlements Task Force.* Unknown: U.S. Securities and Exchange Commission.

Internet Sources

A.M. Best. (2014). *Life Settlement Securitization*. Retrieved June 18, 2015, from http://www3.ambest.com/ambv/ratingmethodology/OpenPDF.aspx?rc=197705

Chowdhury, D. R. (2009). Life settlements can offer healthy returns. *South China Morning Post*. Retrieved August 08, 2015, from http://www.scmp.com/article/694420/life-settlements-can-offer-healthy-returns

Commerzbank. (2006). *Structured Products on Innovative Alternative Investments.* Retrieved August 22, 2015, from http://db.riskwaters.com/global/events/FLAGSHIPS/spasia2006/presentations/day_one/plenary/jarl_smidt_olsen.pdf

Conning. (2007). *Life Settlement Market - Increasing Capital and Investor Demand*. Retrieved August 15, 2015, from https://www.conning.com/pressrelease-detail.aspx?id=167

Conning. (2008). *Life Settlements - New Challenges to Growth*. Retrieved August 15, 2015, from https://www.conning.com/pressrelease-detail.aspx?id=154

Conning. (2009). *Life Settlements - A Buyers' Market For Now*. Retrieved August 15, 2015, from https://www.conning.com/viewpublications-article.aspx?id=3440

Conning. (2010). *Life Settlements - The Market Stabilized as Insurer Impact Grows*. Retrieved August 15, 2015, from https://www.conning.com/pressrelease-detail.aspx?id=5153

Conning. (2012). *Life Settlements: Weak Investor Supply Despite Growing Consumer Demand*. Retrieved August 15, 2015, from https://www.conning.com/pressrelease-detail.aspx?id=7630

Conning. (2013). *Insurance Linked-Securities 2013.* Retrieved October 11, 2015, from https://www.casact.org/education/reinsure/2013/handouts%5CPaper_2217_handout_1028_0.pdf

Conning. (2014). *Life Settlements - Growing Unmet Need, Increasing Opportunity*. Retrieved August 15, 2015, from https://www.conning.com/viewpublications-article.aspx?id=11168

Credit Suisse. (2008). *Longevity investments as an alternative asset class.* Retrieved July 20, 2015, from http://www.csfb.com/conferences/invconf2009/pdf/pres_pearson_hatt.pdf

Deloitte. (2005). *The Life Settlements Market: An Actuarial Perspective on Consumer Economic Value*. Retrieved July 22, 2015, from http://www.quatloos.com/uconn_deloitte_life_settlements.pdf

InsuranceLinked. (2015). *Fund Managers*. Retrieved August 10, 2015, from http://insurancelinked.com/fund-managers/

J.P. Morgan. (2009). *JPMorgan Investment Strategies No. 57: Longevity risk and portfolio allocation*. Retrieved September 3, 2015, from https://www.jpmorgan.com/cm/BlobServer/longevityrisk.pdf?blobkey=id&blobwhere=1158542080885&blobheader=application/pdf&blobheadername1=Cache-Control&blobheadervalue1=private&blobcol=urldata&blobtable=MungoBlobs

KPMG. (2013). *Transaction Services & Restructuring/Financial Risk Management.* Retrieved July 22, 2015, from https://www.kpmg.com/LU/en/IssuesAndInsights/Articlespublications/Documents/opportunities-hidden-dangers-life-settlements.pdf

Legacy Benefits. (2004). *Life Settlement Securitization*. Retrieved August 10, 2015, from http://www.legacybenefits.com/life_settlement_viatical/life_insurance_settlements/life_settlement_securitization.htm

LISA. (2015). *Life Settlement Industry Timeline*. Retrieved June 20, 2015, from http://www.lisa.org/industry-resources/life-settlement-industry-timeline

Tan, G. (2015). Private-Equity Firms Improving Disclosure of Fees and Expenses, Says SEC's Wyatt. *The Wall Street Journal*. Retrieved October 20, 2015, from http://www.wsj.com/articles/private-equity-firms-improving-disclosure-of-fees-and-expenses-says-secs-wyatt-1431556420

The Insurance Insider. (2011). *A tale of two markets*. Retrieved October 15, 2015, from http://www.insiderquarterly.com/a-tale-of-two-markets

The Peninsula Group. (2014). *An opportunistic market*. Retrieved August 27, 2015, from http://peninsulagroupllc.com/industry/market/

US Census Bureau. (2012). *Facts for Features: Older Americans Month: May 2012*. Retrieved June 12, 2015, from https://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb12-ff07.html

Declaration of Authorship

“I hereby declare

- that I have written this thesis without any help from others and without the use of documents and aids other than those stated above,

- that I have mentioned all sources used and that I have cited them correctly according to established academic citation rules.”

Sirnach, November 15, 2015

Christof Meier