

The Reemergence of Asset-Backed Securities:

- And Why the Life Settlement
Asset Class May Be a Perfect Fit

Improving Asset-Backed Securities Through the
Expert Utilization of An Uncorrelated Asset Class



Colva
Actuarial Services

Table of Contents

04

Life Settlements:
A perfect uncorrelated asset
for a correlated world

07

The Mortgage-Backed
Security Crisis: Flaws in
both the underlying asset
and the alignment of
incentives

13

Why Are Life Settlements
A Perfect Fit for an Asset-
Backed Securitization?

21

About the Author
About Colva Actuarial
Services

22

References



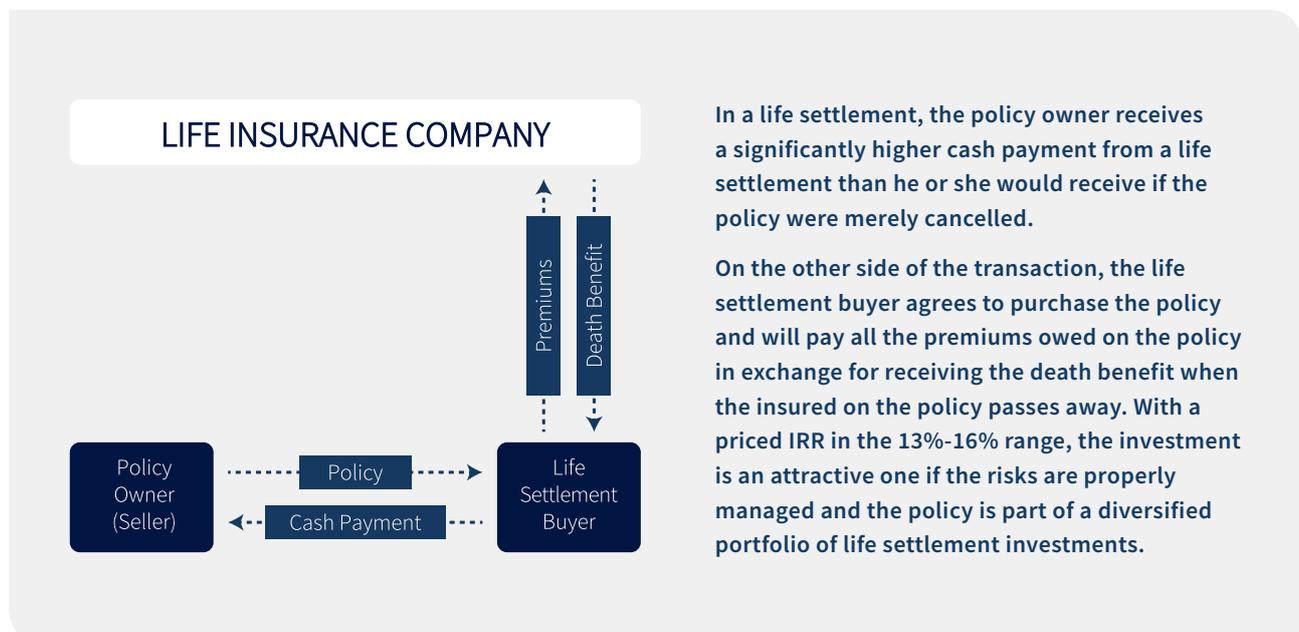
After the mortgage-backed crisis of 2008, investors fled the collateralized debt obligation (CDO) space causing the asset-backed space to decline sharply as investors feared the market and interest rate risk embedded in these securities were too high. But over the past few years the amount of asset-backed securities outstanding in the market have increased such that in 2018 the Securities Industry and Financial Markets Association (SIFMA) reported there were more asset-backed securities outstanding in 2018 than there were in 2008.⁷ Here's why the asset class of life settlements—which is uncorrelated to market and interest rate risk—is a perfect fit for this reemergence of asset-backed securities.



Life Settlements: A perfect uncorrelated asset for a correlated world

IN THE EARLY 2000s AS FINANCIAL INSTITUTIONS WERE EAGERLY ACQUIRING MORTGAGE BACKED securities, savvy investors also started realizing that there was untapped value in acquiring an asset that was uncorrelated to the traditional capital markets they were invested in. It was during this time that the life settlement industry really took off as investment managers realized that mortality and life insurance risk was a lot more manageable than market and interest rate risk.

For those unacquainted with life settlements, a life settlement is the sale of an in-force life insurance policy to a third party for an amount less than its death benefit, but greater than the amount the insured could receive from the life insurance company if the insured merely cancelled the policy and walked away. In return for providing the seller with a cash payment, the third-party purchaser (investor) owns the life insurance policy, pays all premium payments going forward and eventually receives the entire death benefit at the time of the insured's death.



An asset class that benefits sellers

The life settlement asset class provides an extreme benefit to life insurance policy owners who no longer need life insurance or who no longer can afford to pay the premiums on the policy. In the absence of an active life settlement market that purchases life insurance policies from these individuals, the policyowners would often just cancel the policy and receive very little to nothing back due to the large surrender charges assessed on the policy when it is cancelled. Selling a life insurance policy on the life settlement market allows the policy owner to get significantly more money than if they were to merely just cancel the policy and walk away. With life settlements being actively regulated in 43 states, policy owners can enter a life settlement transaction knowing that their interests are being protected by their state government.

It's important to note that life insurance is an asset that most families need when the breadwinners of the family are young and have beneficiaries dependent on their income and large liabilities that would need to be paid in the event of their untimely death. However, as insureds get older, their beneficiaries typically move out of the house and are no longer dependent on their income. At the same time, these older policy owners now have additional expenses—such as healthcare expenses and assisted living needs—that need to be met as they age. Most of these policyowners are seniors who are forced to pay for these expenses out of their limited retirement savings. A life settlement transaction allows such seniors to sell a policy they no longer need in exchange for a cash payment that they do need.

An asset class with sophisticated investors

While the average investor may be unfamiliar with life settlements, it's an asset class that well renowned sophisticated investors such as Berkshire Hathaway, Apollo, Fortress, Blackrock, Blackstone AIG and more have collectively invested billions of dollars in.



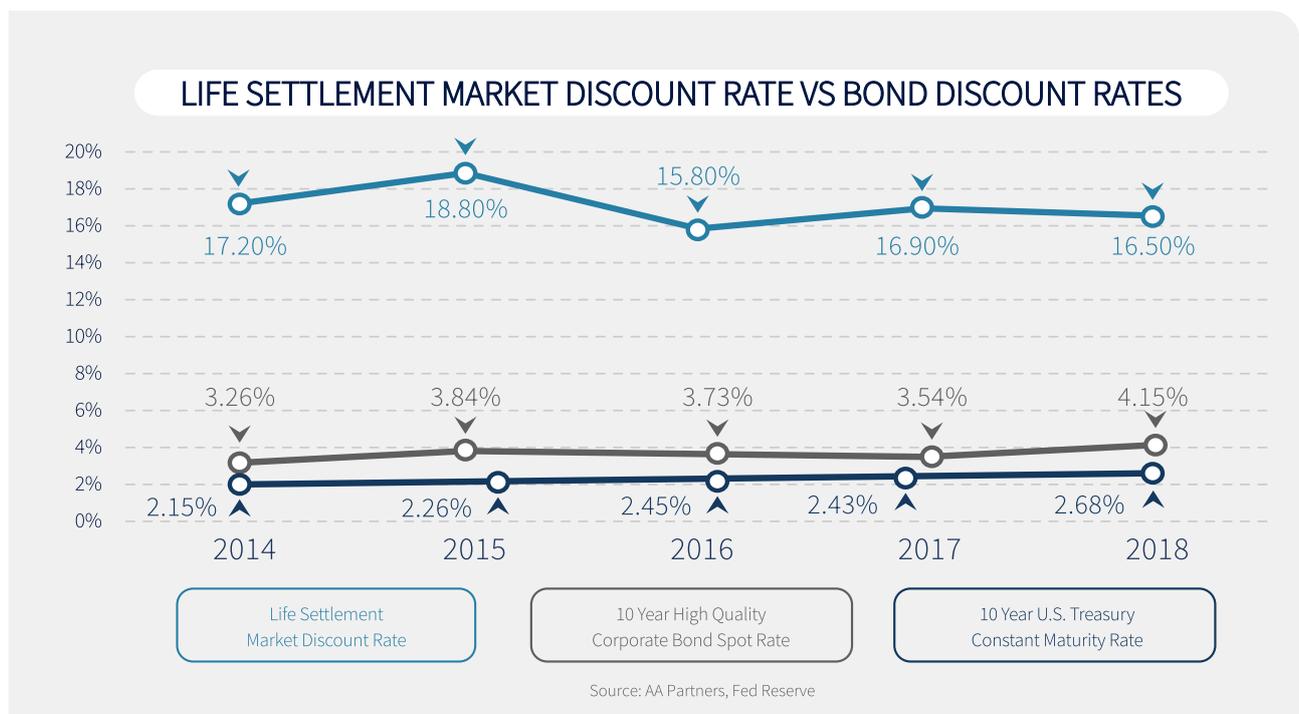
While life settlements may be relatively unknown to the average investor, sophisticated financial institutions have been investing billions in the space for several years as they sought to diversify away from traditional market and interest rate risk.



An investor in life settlements knows that aging insureds on life insurance policies are more likely to be less healthy now than when the policy was originally purchased. Professional investors and asset managers in life settlements confirm this decrease in health through independent third-party consultants that provide life expectancy reports. Furthermore, life settlement investors know that if they can find specialized actuarial and insurance expertise they can calculate the mortality arbitrage on the policy and determine how to pay significantly less in premiums than the previous policy owner was paying to keep the policy in force. These two factors make the purchase of an individual policy attractive as the life settlement investor typically pays a cash price for the policy at a discount rate (IRR) of 13%-16%.⁶

An investor in an individual life settlement policy can expect to achieve two outcomes. The insured could pass away before the life expectancy (in which case the return would be higher than the 13%-16% the policy was priced at) or the insured could pass away after the life expectancy (in which case the return would be lower than the 13%-16% the policy was priced at).

However, the life settlement investor also knows that just buying one policy is extremely risky as the investor doesn't know exactly when the return on investment will be realized. In order for these priced IRRs to materialize, and for the investment to be less volatile, investors have to acquire a decent number of policies at attractive prices using a combination of sourcing channels and insurance expertise that properly finds policies, evaluates the risk and then manages the risk post-acquisition. Hence, while the underlying return on the asset may be uncorrelated to traditional capital markets, this return is very much correlated to the expertise of the asset manager. Therefore, in order for investors to realize stable, high-yielding returns in the space that exceed those of traditional equity/bond portfolios they must find highly specialized asset managers that truly understand the space and work on behalf of the investor.



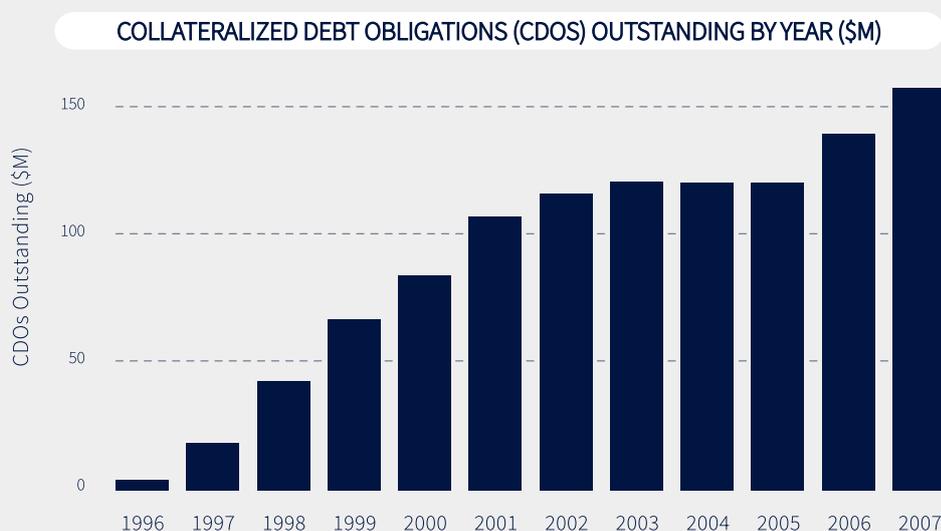
The discount rates applied to life settlement assets are significantly higher than those applied to the traditional bond marketplace. The risk premium applied to the life settlement marketplace over traditional bonds is primarily due to the lack of confidence investors have in firms in the space. This affords an excellent opportunity for an investment firm with the proper life insurance and actuarial expertise to acquire these assets at discount rates in the mid-teens and issue a well-structured bond against these high-yielding assets in the mid-single digits.



The Mortgage-Backed Security Crisis: Flaws in both the underlying asset and the alignment of incentives

IN ORDER TO UNDERSTAND HOW LIFE SETTLEMENTS ARE A BETTER FIT FOR AN ASSET-BACKED securitization than the mortgage-backed securities of the early 2000s, it's important to first look at the flaws embedded in the mortgage-backed security process and then compare how a life settlement securitization addresses these shortcomings.

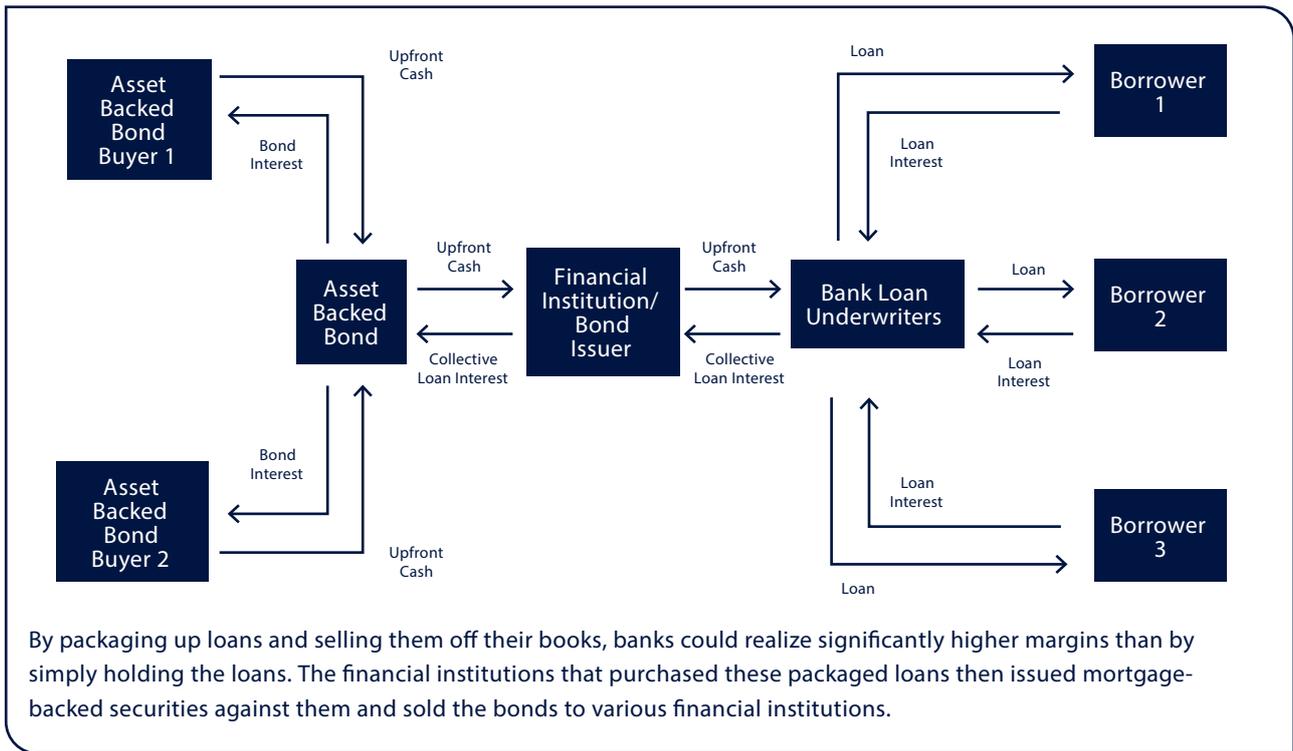
In the early 2000s the financial industry struck upon what it felt was a gold-mine: mortgage-backed securities. While mortgage-backed securities had been around since the 1980s, around the early 2000s banks realized that if they issued a mortgage loan themselves and held it on their balance sheet that they would have to hold significantly more capital to back that loan than if they only held securities backed by those same mortgage loans. As such, the demand to hold securities backed by mortgage loans was greater than the demand to hold actual mortgages on a balance sheet. Banks and financial institutions realized that they could make a large profit by issuing loans to individuals and then quickly packaging those loans into securities and selling them off their books. This was a much better option for the bank than simply holding the loan on its balance sheet and taking the loan default risk themselves.



CDOs which were largely dominated by mortgage-backed securities exploded in the late 1990s to early 2000s as banks realized it was more profitable to package loans into securities than to hold them on their books.

Source: SIFMA





The problem with this strategy is that there was a greater demand to issue loans than there were individuals who qualified to take out those loan amounts.



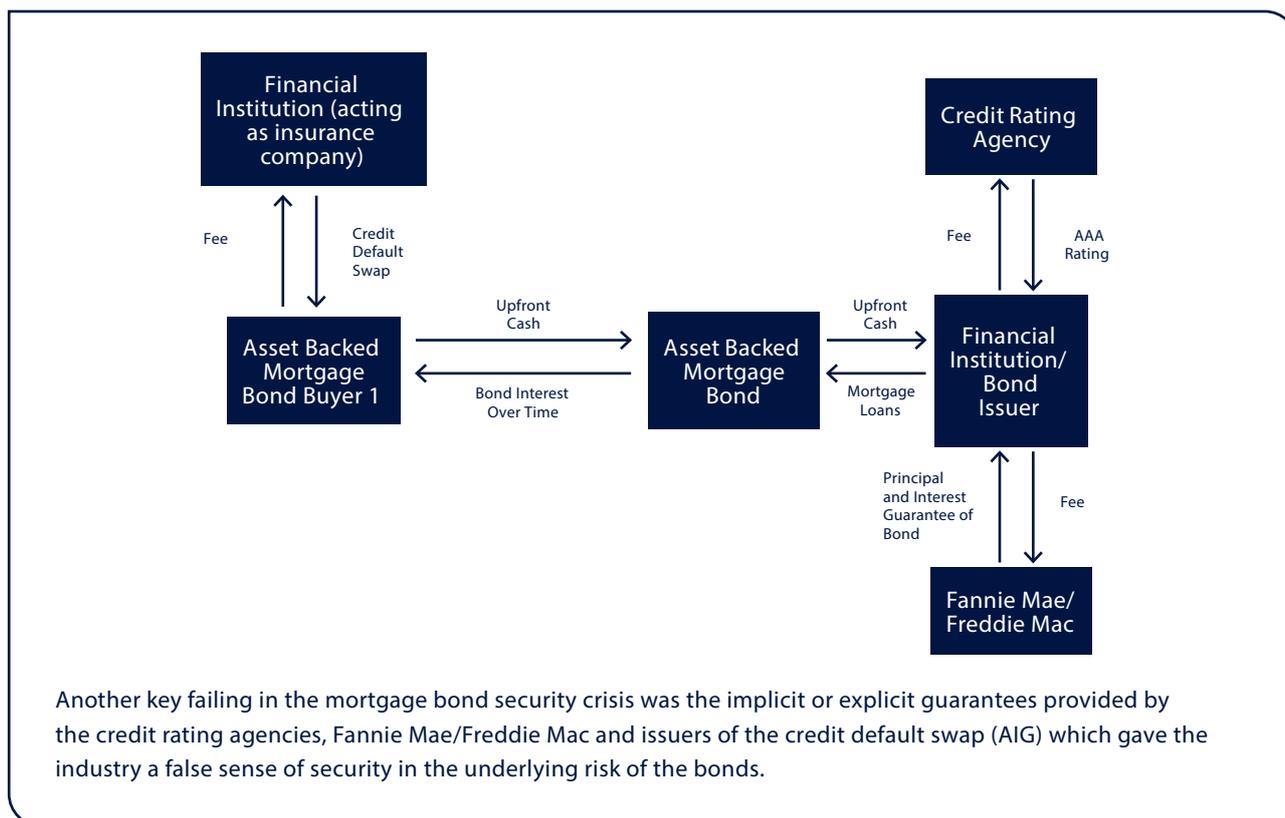
“SO WHAT DID BANKS DO WHEN THEY RAN OUT OF QUALIFIED PEOPLE TO ISSUE LOANS TO? WELL, THEY SIMPLY ISSUED LOANS TO UNQUALIFIED PEOPLE AT LOWER RATES THAN WAS JUSTIFIED BY THE LEVEL OF RISK.”

These loans were then packaged into mortgage-backed securities and sold to financial institutions. The Fannie Mae and Freddie Mac guarantees that protected sellers of mortgage-backed securities further incentivized banks and financial institutions to issue mortgage loans and subsequent mortgage-backed securities without being responsible for any of the underlying risks involved.

And so the subprime mortgage market expanded. The problem wasn't the fact that banks lent money to subprime market per se, but that these banks didn't fully account for the risks that were contained in these subprime mortgages and lent more money to this segment of the market than they should have. If the banks had fully accounted for the risk and taken less of these poorly underwritten loans on their books, then the economic environment would have looked very different. But as a result of banks failing to underwrite these loans properly, people who shouldn't have qualified for loans in the first place were purchasing homes in increasing numbers and driving up the price of houses across the country.



Another problem with the mortgage-backed security crisis was that credit rating agencies (S&P, Moody's, etc) gave very high ratings to the mortgage-backed securities because they didn't properly underwrite the risk. So not only did the banks poorly underwrite the original loans, the credit rating agencies in charge of rating the securitization poorly underwrote the bonds. As a result, financial institutions that purchased these bonds were buying securities that they thought were a lot safer than the bonds actually were. Furthermore, guarantees by Fannie Mae/Freddie Mac and the credit default swap issuers made the bonds to appear to be more safe than they really were.



Eventually these poorly underwritten loans came back to haunt not only the banks, but the financial institutions that issued mortgage backed securities against these loans. When the Fed started raising interest rates, borrowers with adjustable rate mortgages, many of whom had overleveraged themselves to get the loan in the first place, could no longer make the higher mortgage payment. As a result, these borrowers defaulted on their mortgages. The increasing rates of default on these loans made the entire process of getting a loan for home purchasers more difficult. Since loans were more difficult to come by, fewer people were in search of homes to buy. This decrease in demand for homes of course led to a drop in the price of houses. Unfortunately for many who had purchased these homes at the boom of the market—and taken overburdening loans to do so— their homes were now worth less than the outstanding loans they owed for them. And so these borrowers started to default on their mortgage loans. The defaults didn't just stop at mortgage loans though. Borrowers defaulted on credit card debt and other forms of debt as well.

These increasing defaults on the underlying mortgage loans meant that the securities backed by these mortgages rapidly lost value. Buyers of these securities were therefore left absorbing the loss unless they had purchased default protection through credit default swaps. Ultimately it was the failure of the financial institutions that held large positions in subprime positions that had to be liquidated at large losses and AIG that provided these credit default swaps but couldn't back their obligations that spurred the Global Financial Crisis of 2008.





The rise of interest rates pushed subprime mortgage borrowers that had utilized adjustable rate mortgages to default on their loans which led to a downstream cascade of failures ultimately leading to the failing of financial institutions that held mortgage backed securities in excess or issued credit default swaps and couldn't back their obligations

The failings of mortgage-backed securities in the mid-2000s were primarily a result of the following four areas:



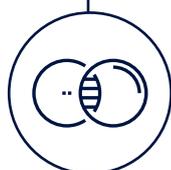
Poor Underwriting by Loan Departments: The overissuing of loans to high risk individuals in the first place was a direct fault of the loan underwriting departments of banks who were incentivized by the economic market to issue loans and sell them off the banks' books as quickly as possible. It wasn't that these loan underwriting departments weren't qualified to issue the loans; they were. They just chose to be lax in their due diligence process and there were limited checks and balances in place to hold them accountable.



Misaligned Incentives: Perhaps the primary reason that the loan underwriting was so poor to begin with was that the banks had no incentive to properly underwrite the loans relative to the loan risk in the first place. The banks' entire goal was to issue the loans and immediately sell them to financial institutions. Since the banks weren't taking any of the default risk themselves, there was no incentive for them to properly underwrite the loans.

A similar story could be found with the financial institutions that bought the loans from the bank and issued mortgage-backed securities to asset-backed bond buyers. These financial institutions were just passing on the hidden risk in the loans to securities buyers the same way that the banks had passed on the risk to them. Furthermore, these financial institutions issuing the mortgage securities were often protected by Fannie Mae and Freddie Mac which essentially guaranteed the principal and interest repayment on these mortgage-backed notes (with an implicit guarantee that the U.S. government would step in and fulfill the guarantee if Fannie Mae and Freddie Mac couldn't fulfill their obligations).

By continuing to pass on the risk to the next party, there was no vested interest on the issuers of the loans or the issuers of the asset-backed securities designed around these loans in the underlying risk that these loans and securities contained.



Lack of Transparency in the Underlying Loan Documents: Due to the loan departments lax underwriting protocols, the documents associated with these loans that supposedly underwrote the risk were often incomplete or poorly done. As a result, when the credit rating agencies in charge of underwriting the risk for the purpose of assigning a risk level to the securitization reviewed the transaction they were limited in their ability to truly evaluate how risky these loan assets were.





Poor Underwriting by the Credit Rating Agencies: The inability of the credit rating agencies who rated the securitizations was not due to a fault of lax judgment which had befallen their bank loan counterparts. Rather the credit rating agency problem was their lack of expertise in the asset class and their lack of ability to truly understand and model the risk as well as a lack of vested interest in the transaction and the asset class.

For starters, the credit rating agencies weren't able to peel back the layers of the securitization to look at the underlying risk of the loan assets due to a lack of transparent data. The credit rating agencies were not loan underwriters. If they were, they would have looked at the loans that were underlying the securities and realized how incomplete and poorly underwritten they were. They then would have been able to properly stress their financial models which they used to assign a credit rating to the risk.

Similarly to the misaligned incentives described previously with the bank loan departments and mortgage-backed security issuers, these credit rating agencies had limited vested interest in providing an accurate rating to the mortgage-backed securities. They received their fee upfront and their core expertise and business was not in rating real estate transactions. What this means is that they could afford to offer a great AAA rating to these mortgage-backed securities, have the rating fail to reflect the underlying risk of the securities, and continue to rate non-real estate based transactions which make up the majority of their core business. And so while the marketplace for mortgage-backed securities quickly dissipated after the financial crisis, the desire for security ratings from these credit rating agencies in other asset classes did not. The long-term repercussions for these credit agencies offering ratings on an asset class that they had little familiarity with was minimal.



Poor Underwriting by the Credit Default Swap Insurer (AIG): While buyers of the asset-backed securities were comforted by the AAA ratings afforded to certain tranches of the mortgage-backed securities, they also wanted additional protection. This additional protection came in the form of credit default swaps that were issued by AIG. The buyers of the mortgage-backed security would pay AIG a premium and in exchange AIG would agree to cover any loss the buyer might face on default of the mortgage-backed security. The main problem with this arrangement was mainly that the division of AIG that offered this credit default swap was not a regulated insurance entity. This posed three main problems:

A. Taking correlated risk. Insurance companies only provide insurance on risks that are not correlated to economic conditions. The reason for this is that economic risks like interest rate risk and market risk cannot be accurately estimated while uncorrelated risks—like the chance of an insured dying or getting in a car accident—can be accurately estimated if the number of insureds is large enough.

For example, if insurance companies insure enough individuals for life insurance and their underwriting is strong, on average the amount of people that actually die will be within a small range of the amount of people that actuaries estimated would pass away.

The same cannot be said about insuring market risk or interest rate risk. Estimating when the economy will crash or interest rates will rise is not a predictable science—mortality and population statistics are. The key failing with the credit default swap was insuring a risk that was fundamentally not insurable.



- B. Unqualified to underwrite the risk .** Unlike AIG's normal insurance divisions which required them to have actuaries that undergo 4-10 years plus of rigorous test taking in order to ensure they are qualified to manage risk for the insurance provided, there was no such requirement for the division of AIG that provided credit default swaps. As such this division was able to essentially provide insurance on these policies without having any insurance qualifications.
- C. Lack of adequate reserves.** Another key element of insurance companies is that they are required by government regulation to hold a significant amount in cash reserves to back their obligations. The more risk involved in the insurance they provide, the more in reserves they must hold. However, since the division of AIG that provided these credit default swaps were not technically providing insurance, they were able to skirt the stringent government oversight required of actual insurance policies. As a result, AIG failed to hold the reserves necessary for a massive default and was therefore unable to pay back its obligations to holders of the credit default swap. In comparison, no AAA rated life insurance company has ever failed to pay a death benefit to a rightful insured.

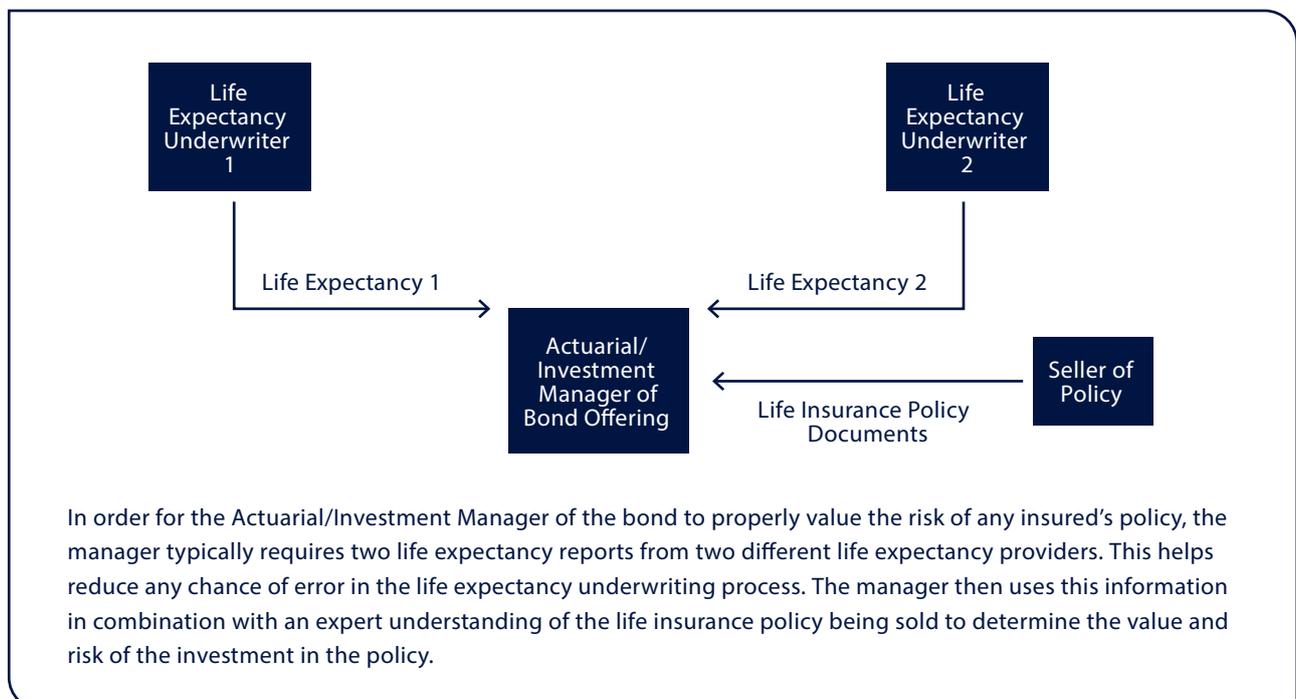


Why Are Life Settlements A Perfect Fit for an Asset- Backed Securitization?

UNLIKE MORTGAGES, LIFE SETTLEMENTS ARE UNCORRELATED TO MARKET AND INTEREST RATE RISK. Whether the economy enters a recession or enters a boom does not affect when individuals pass away. This makes it a perfect asset class for an asset-backed securitization.

The ability to earn stable returns in the life settlement industry is dependent on two key qualities:

1. The strength of the life expectancy underwriting by third party professionals that assess the insured's health.
2. The ability of actuarial/investment firm issuing the asset-backed bond to utilize their expertise to identify hidden value in the policies they are acquiring and properly structure the investment to mitigate potential tail risk.



Life expectancy providers assess the health of the insured using up-to-date medical information and then provide an estimate of the insured's health using formulas and methodologies from their experience of having underwritten hundreds of thousands of lives in both the life insurance and life settlement space.

If we were to compare the life settlement transaction process versus the mortgage loan process, the life expectancy providers essentially provide a similar role to the role that loan underwriters play in the mortgage process. In both cases these parties use their experience and skillset to assess the risk the underlying applicant poses. Only in the case of a loan, the underwriter is assessing the applicant's financial health while the life expectancy providers are assessing the applicant's physical health.

The concern in both cases might be that both parties are merely underwriting the risks, getting paid for doing so, and then passing off the risk to other parties—which was a key failure in the mortgage-backed security crisis. The key thing to note in both cases though is that after the financial crisis of 2008, banks didn't stop issuing loans to private individuals looking to purchase homes—they just became a lot more stringent in their underwriting process. As a result, getting a mortgage loan today is significantly harder than it was fifteen years ago. In order for banks to stay in the business of making loans, they had to develop more rigorous criteria for underwriting loans and keeping them on their books as the market would no longer allow them to pass off the risk to unsuspecting third parties.

A similar comparison can be made with life expectancy providers. Life expectancy providers that provide life expectancies to the life settlement market depend on the life settlement market as a source of continued revenue. In order for the marketplace to trust the life expectancy providers estimates of life expectancies, these providers have had to significantly improve their underwriting process and methodologies to accurately reflect the risks they are underwriting. Here are just some of the significant improvements in life expectancy underwriting that has taken place over the last 10 years:

1. An understanding that life insurance population mortality is notably different than life settlement population mortality and that adjustments need to be made accordingly.
2. An understanding that there is an anti-selection element that needs to be accounted for from insureds wishing to sell their policy versus those wanting to keep their policy.
3. An understanding that wealthy individuals with the same health conditions as poor individuals have a longer life expectancy due to better access to health care.
4. An understanding that adding debits for health conditions is not merely additive. In other words, while adding a 100 debits to an individual for a certain condition for an individual with no other impairments may be accurate, adding that same 100 debits for that same health condition when the individual already has 500 debits may not be. There is a diminishing utility of adding additional debits after a certain point.



AS ANY MARKET GETS MORE EFFICIENT, THE PROVIDERS TO THAT MARKET ARE FORCED TO BECOME MORE EFFICIENT AS WELL—OR LOSE MARKET SHARE TO THOSE WHO ARE.

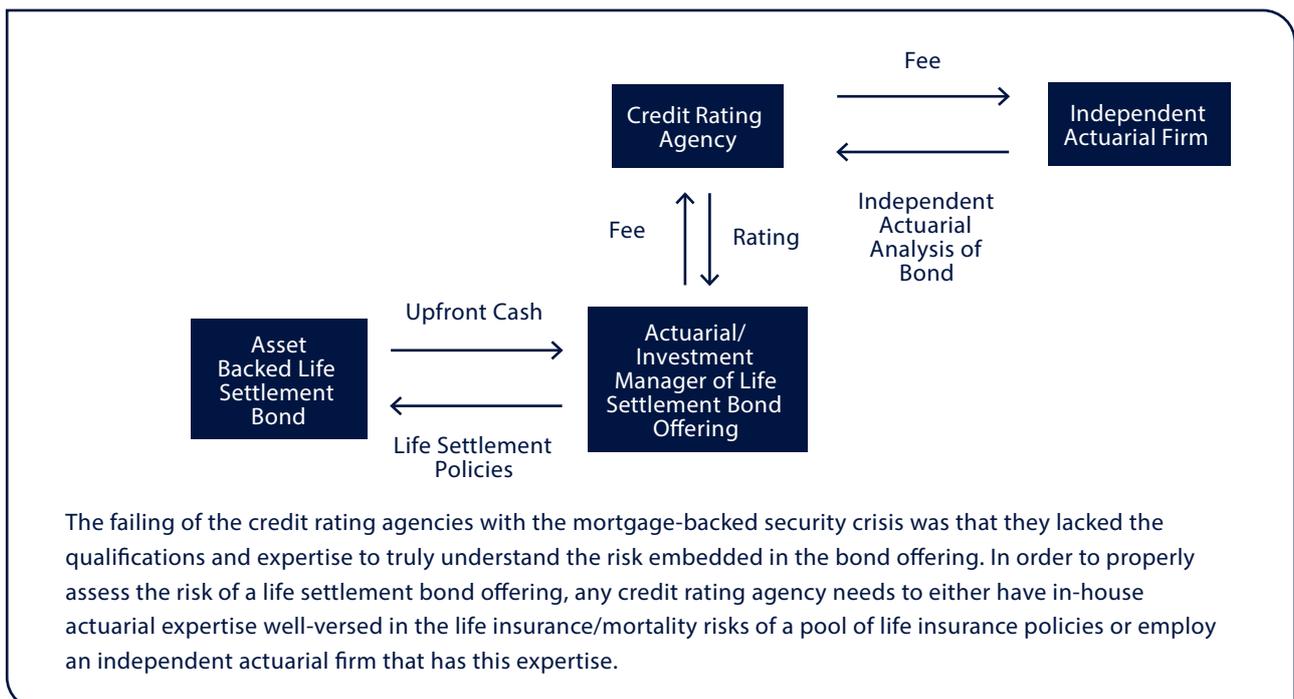


The actuarial/investment firm in charge of acquiring policies to put into the bond is then tasked with the responsibility of evaluating the risk that acquiring the policy poses to the portfolio. Here are some of the questions the actuarial/investment manager is tasked with:

1. What is the chance that the life expectancy is off? How does this affect the investment in the policy/portfolio?
2. How can I use my understanding of pricing and designing life insurance products to find undervalued policies and structure investments using certain features to mitigate tail risk?

In order to answer these questions, the actuarial/investment firm relies on its life insurance product experience and actuarial training. The use of multiple life expectancies from different life expectancy providers is also used to mitigate any chance of errors in the life expectancy underwriting process. The performance of the life settlement bond is largely dependent on the actuarial/investment firm's ability to understand the risks at play and manage them accordingly.

A large reason for the failure of the mortgage-backed bonds during the financial crisis was that both the credit rating agencies rating the bond and the institutions packaging the bond lacked the expertise to peel back the layers of the bond to understand and evaluate the risk. With a life settlement bond, the underlying risk is life insurance and mortality risk. Actuaries have spent 4-10 years of rigorous training being explicitly trained to look for, identify, and evaluate the risk at hand. As such, the investment manager must have strong actuarial and life insurance product expertise as well as being financially invested in the performance of the bond. The actuarial/investment firm cannot merely package the life settlement policies into a bond offering, collect the profits upfront and then walk away unscathed by the actual performance of the bond. To do so would allow the same lack of incentives that plagued the financial institutions that issued mortgage backed securities during the financial crisis of 2008. Furthermore, the credit rating agency rating the life settlement bond must also have actuarial and life insurance expertise on-hand or work closely with an independent actuarial firm to evaluate the risks as the independent actuarial firm will be placing its credibility on the line.



LIFE SETTLEMENT SECURITIZATION	CATEGORY	2008 MORTGAGE-BACKED SECURITIZATION
Underlying asset is independent of market and interest rate risk and instead is dependent on the actuarial and life insurance expertise of the investment managers.	Underlying Asset	Underlying asset is heavily dependent on market and interest rate risk which are outside the control of the investment managers.
Underwriters are extremely qualified to underwrite the risk and are dependent on the continued success of the life settlement industry in order to continue. As such, they must continually improve their practices and methodologies in order to stay relevant.	Underwriters	Underwriters were extremely qualified to underwrite the risk, but were not incentivized to properly underwrite the risk since they were merely selling the risks off their books.
Investment managers of life settlement securitizations must have actuarial and life insurance expertise acquired over 4-10 years in the life insurance space in order to manage the mortality risk that is at the crux of the asset.	Investment Managers	Investment managers of mortgage-backed securities were neither experts in mortgages nor qualified/capable to manage the dependent market and interest rate risk that undermined these bonds.
Credit rating agencies must either have in-house actuarial expertise or use outside actuarial firms whose credibility is placed on the line when reviewing the transaction.	Credit Rating Agencies	Credit rating agencies were not qualified underwriters of the risk nor did their future depend on properly underwriting mortgage loan risk.
Life insurance is a heavily regulated asset that is already reinsured by highly qualified reinsurance companies with billions of dollars in reserves.	Insurance/ Reinsurance Providers	Credit default swap providers were neither qualified nor had the reserves to properly provide insurance to bondholders.

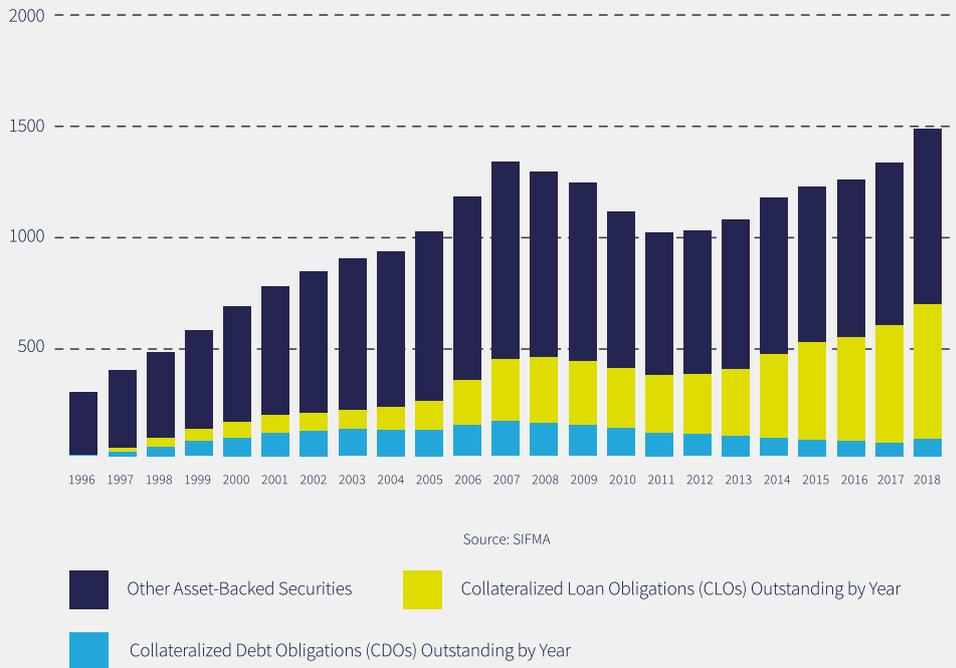
Unlike the 2008 mortgage-backed securitization, a properly structured life settlement securitization utilizes an uncorrelated asset class and expert investment managers and underwriters whose incentives are properly aligned with that of the bondholder.

The Reemergence of Asset-Backed Securities—but repeating the same mistakes of yesterday

Prior to 2018, the peak of outstanding asset-backed securities in the U.S. marketplace was in 2007 led by the extensive growth of mortgage backed securities as well as collateralized loan obligations.⁷ While mortgage-backed securities and collateralized loan obligations may sound similar, they refer to two separate asset classes. Mortgage-backed securities are a form of collateralized debt obligation (CDO) in which debt with underlying assets (such as mortgages) are packaged into securities. Collateralized Loan Obligations (CLOs), on the other hand, are typically leveraged loans against a corporate company's overall credit risk (and not secured by any one particular asset). So while CDOs in the form of mortgage-backed securities are taking loan risk from private individuals, CLOs are taking loan risk from much larger private corporations--but unsecured by any specific asset. Other types of asset-backed securities include automobile, credit card, and student loan backed securities.



ASSET BACKED SECURITIES OUTSTANDING BY YEAR (IN MILLIONS)



While the mortgage-backed security (CDO) market has dried up post-2008, the CLO market has taken off and spurred the growth of asset-backed securities in the last few years.

After 2008, the market for CDOs (largely driven by mortgage-backed securities), dried up as the financial market was no longer comfortable holding a risk that was so highly correlated with traditional capital markets. However, financial institutions were still largely in search of yield especially as interest rates dropped in order to spur economic growth. So while the amount of asset-backed securities slightly dropped after the 2008 crisis, they quickly picked back up as more and more financial institutions sought to acquire CLOs instead of CDOs as they felt corporate loan risk was a lot less risky than private loan risk.

And on the surface, they are correct. Corporate credit risk typically involves companies that have significantly larger and more transparent balance sheets than individuals. As a result, analysts could more quickly peruse the audited financial statements of companies to determine the risk as opposed to having to dig through the financial records of hundreds or thousands of private individuals trying to determine the risk.

However, as more and more institutions went after the CLO market in order to chase yield, the supply of the highest credit-worthy loans started to dry up in the face of competition. In the face of limited supply, the CLO market has increasingly utilized leveraged loans that are covenant-lite. Covenant-lite loans are loans that allow for fewer restrictions placed on the borrower and fewer protections provided to the lender. Today, covenant-lite loans make up 87% of all leveraged-loans outstanding in the U.S.⁸ Investors in CLOs in today's market are therefore not only investing in unsecured leveraged loans, but they are also investing in covenant-lite loans that would limit the investors' ability to recoup their investment in the event of a liquidation.



LEVERAGED LOANS OUTSTANDING AND COVENANT-LITE %



In the wake of the collapse of the mortgage-backed security market, investors have increasingly sought yield through covenant-lite leveraged loans which are packaged into CLOs.

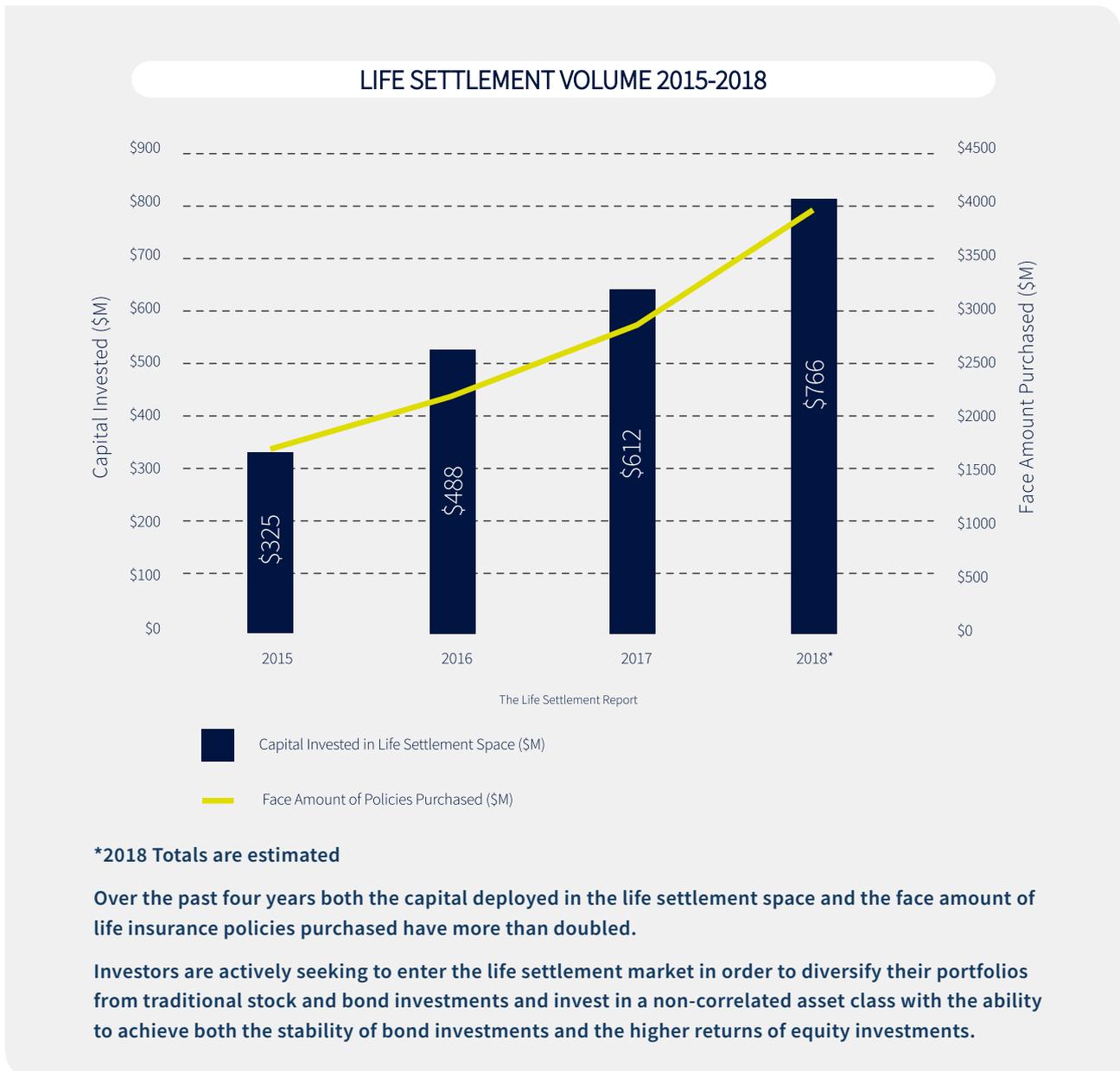
Life Settlement Backed Securitization: Structuring Risk Better Instead of Taking More Risk

If the rise of covenant-lite leveraged loans in the wake of limited supply sounds familiar to the mortgage-backed security crisis of the past, it should. Supporters of the covenant-lite CLO movement will argue that these covenant-lite loans are being issued on large companies with transparent financial records and a lower rate of default than their private individual brethren. And while they are correct on those fronts, the truth is that the risk is still heavily correlated to general market risk. So yes, like the mortgage-backed security crisis of the past, there is little risk of default when the economy is doing well. But what happens if the economy slows down and the revenues of these large corporate companies start to suffer and they struggle to make their debt payments? In the event of default or liquidation, the covenant-lite provisions reduce the debtors claim to recourse. This of course means that debtors are getting debt-like yields while taking closer to equity type risks.

Clearly in a low interest-rate environment like the one we are in there is an increasing demand for products that offer yield. But the goal in such a low-yield environment should not be to simply take more risk in over-saturated markets for that same yield; the goal should be to structure risks more efficiently in markets and asset classes that are being inefficiently utilized. The increasing demand for asset-backed securities over the past few years shows that there clearly is an increasing market for structured securities products.



The life settlement asset class with its uncorrelated underlying asset is a perfect fit for the asset-backed security market given the evolution of the market over the last 10 years as both increasing regulation and more robust methodologies have been implemented in the space. Sophisticated investors worried about market volatility and low bond yields have also increasingly explored the unique nature of this uncorrelated asset class. The only thing missing are robust actuarial/investment managers capable of both evaluating and mitigating the risk and working with capable partners to bring asset-backed life settlement securities to the market.



Furthermore, the life settlement asset class allows for proper utilization of insurance protection for its bondholders unlike the credit default swap counterparties in the mortgage-backed bond securitization process.

In our discussion about the problem with credit default swaps on mortgage-backed bonds we clearly saw that the problem with these credit default swaps was that the issuers of these credit default swaps were



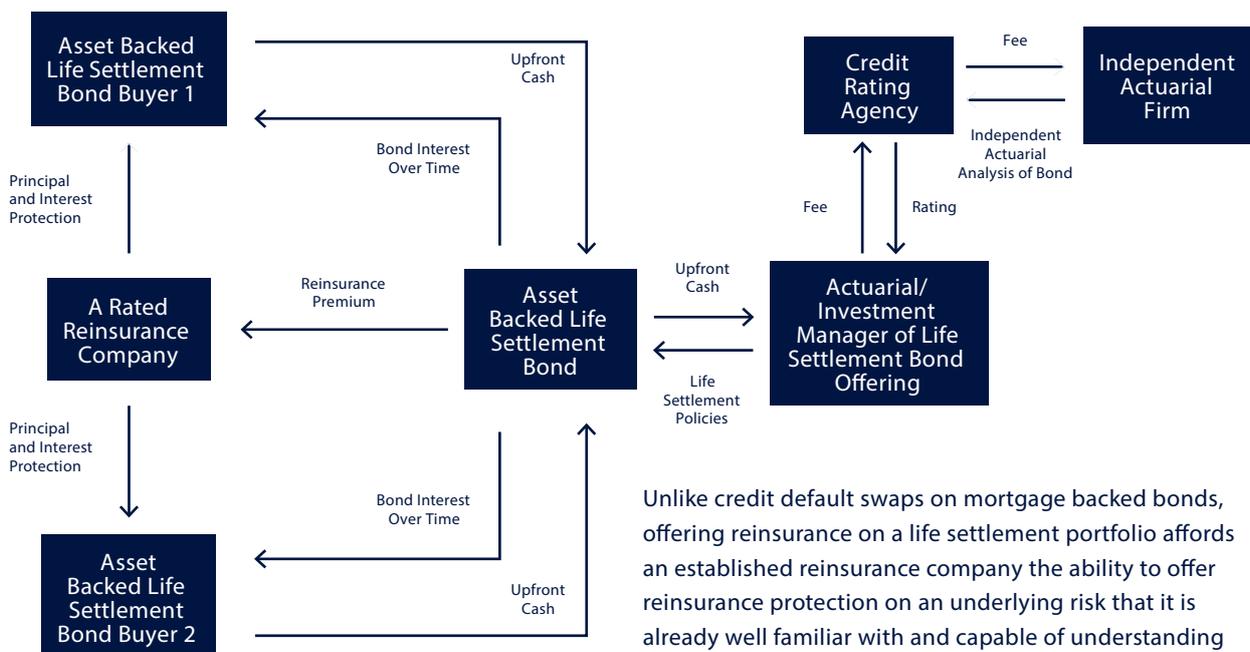
trying to provide insurance on a risk that no insurance company would underwrite while simultaneously lacking the necessary qualifications and regulations demanded of an insurance company.

In order for a robust insurance or reinsurance market to exist for an asset class, the following criteria must be met:

1. The underlying risk must be uncorrelated to market or interest rate risk.
2. The insurance company or reinsurance company must have the actuarial and insurance qualifications necessary to provide the insurance/reinsurance on the underlying risk.
3. The insurance company/reinsurance company providing the coverage must be well regulated and have sufficient reserves to pay any obligations that come due as a result of default on the bond.

A life settlement bond with a regulated reinsurance company providing the default protection/reinsurance coverage is a perfect fit because it meets all three of these criteria. A life settlement portfolio is nothing more than a collection of individual life insurance policies. Reinsurance companies already provide reinsurance on pools of life insurance policies for dozens of life insurance companies and therefore are well qualified to underwrite the risk and provide the coverage. In fact, some life insurance companies reinsure over 80% of their business to reinsurance companies because they realize that reinsurance companies are more adept to cover the mortality risk at a cheaper cost than they can. Furthermore, these reinsurance companies often have billions of dollars on their balance sheet to put towards creating reserves for covering any future claims on their coverage.

The ability for a life settlement bond issuer to find a reinsurance partner creates benefits for both the holders of the bond as well as the issuer. Bondholders are comforted in knowing that a reinsurance company is willing to put billions of dollars in assets to protect the bondholder against any potential principal and interest losses that the bond holder might face. With this level of protection against any potential default, the bondholder is more than willing to accept a lower rate of interest on their bond—which of course makes the bond offering more profitable for the issuer of the life settlement bond.



Unlike credit default swaps on mortgage backed bonds, offering reinsurance on a life settlement portfolio affords an established reinsurance company the ability to offer reinsurance protection on an underlying risk that it is already well familiar with and capable of understanding and modeling the risks. Such a reinsurance protection would both afford higher levels of protection to bondholders as well as lowering the required interest rate on the life settlement bond.



About the Author



Rajiv Rebello, FSA, CERA

Rajiv Rebello is the Chief Actuary and Principal of Colva Actuarial Services. As an actuary he has helped to manage and evaluate thousands of life insurance policies and helped investors save millions of dollars in unnecessary premium payments while structuring investments in the life settlement space to minimize longevity risk and improve returns. Prior to his work in the life settlement space, Rajiv was an actuary for New York Life where he worked on the pricing and design of New York Life's Universal and Variable Universal Life Products and helped make adjustments to New York Life's mortality table based on realized mortality experience. He can be reached at rajiv.rebello@colvaservices.com.

About Colva Actuarial Services

Colva Actuarial Services (<http://colvaservices.com/>) is an actuarial servicing company that helps life settlement investors and wealth management firms properly structure investments in life insurance products in order to minimize premiums paid into these products and maximize client returns.



References

1. Hoogesteger, John. "Berkshire Unit Lends \$400M to Startup". The Business Journals. Feb 3, 2002. Available at: <https://www.bizjournals.com/twincities/stories/2002/02/04/story1.html>
2. Horowitz, Donna. "Berkshire Hathaway confirms it bought \$300M Coventry portfolio." The Life Settlements Report. July 19, 2013. Available at: <http://wealthplanninggroup.info/index.php/component/rsfiles/preview?path=Articles%252Fberkshire-hathaway-buys-life-settlements.pdf>
3. Scism, Leslie. "AIG Says It Settled Legal Dispute Over 'Life Settlements.'" Wall Street Journal. Feb 29, 2016. Available at: <https://www.wsj.com/articles/aig-says-it-settled-legal-dispute-over-life-settlements-1456771258>
4. Horowitz, Donna. "Preliminary bids were due in the Fortress portfolio sale." The Life Settlements Report. Oct 25, 2013. Available at: <https://www.floir.com/siteDocuments/FortressSale.pdf>
5. Or, Amy; Scism, Leslie. "Apollo Moves on Life Policies." Wall Street Journal. Oct 9, 2010. Available at: <https://www.wsj.com/articles/SB10001424052748704657304575540501943095616>
6. A Partners. "Life Settlement Reference Rate: Main Market Rate." Dec 2018. Available at: <https://www.aa-partners.ch/life-settlement-reference-rate/>
7. SIFMA. "US ABS Issuance and Outstanding". June 2019. Available at: <https://www.sifma.org/resources/research/us-abs-issuance-and-outstanding/>
8. LCD, an offering of S&P Global Market Intelligence. Available at: <http://pensionpulse.blogspot.com/2019/01/sounding-alarm-on-leveraged-loans.html>





Colva
Actuarial Services

www.colvaservices.com