

## Replication Synthetic Asset Transaction for US Insurers – An Underutilized Tool

### **US Insurers Are Limited In Their Use of Derivatives**

US insurers are limited in their use of derivatives. The National Association of Insurance Commissioners (“NAIC”) defines the use of derivatives by insurance companies by the following categories: hedging, income generation, and replication.

The NAIC Investment of Insurers Model Act limits investments in derivatives for income generation to covered call and covered put strategies. Accordingly, insurers are significantly limited in how they may invest using derivatives for “income generation”.

Replication is defined as a derivative transaction entered into in conjunction with other investments in order to reproduce the investment characteristics of otherwise permissible investments.

### **Replication Synthetic Asset Transactions (“RSAT”)**

The Purposes and Procedure Manual of the NAIC Securities Valuation Office sets forth nine safe harbor replication synthetic asset transactions (“RSAT”):

- 1) Bond with interest rate swap – the insurer enters into a swap agreement to exchange a floating interest rate for a fixed interest rate, or vice versa.
- 2) Bond with credit default risk swap – the insurer enters into a credit default swap to exchange the credit default risk of a bond for that of another bond.
- 3) Bond with total return swap – the insurer enters into a total return swap to exchange the return of one basket or index of bonds for the return of another basket or index of bonds.
- 4) Bond with foreign currency swap – the insurer enters into a currency swap to exchange the right to receive principal and/or interest in the currency of one country for that of another.
- 5) Bond with equity option – the insurer holds a bond and enters into a call option to purchase common stock or a call option on an equity index.
- 6) Convertible bond with sale of equity option – the insurer holds a convertible bond and enters into an agreement to sell the equity conversion right connected with a bond to another party.
- 7) Bond with index amortizing interest rate swap – the insurer enters into an agreement to exchange fixed interest rate payments for floating interest rate payments or vice versa. The notional amount of the swap and therefore the size of the interest rate swap, amortizes by reference to an index, usually also tied to interest rates.
- 8) Bond with interest rate swap and swaption agreement – the insurer enters into two agreements. First the agreement to exchange fixed interest rate payments for floating interest rate payments or vice versa. In the second agreement, the insurer enters into a swaption agreement by which it allows itself the option of transferring its obligation under the swap agreement.
- 9) Bond with interest rate swap and interest rate cap/floor – the insurer enters into two agreements. First the agreement to exchange fixed interest rate payments for floating interest rate payments or vice versa. In the second agreement, the insurer limits its exposure above or below a certain interest rate level by entering into a cap or floor agreement.



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Transactions which are not structured according to these nine safe harbor transactions can be submitted to the NAIC SVO for approval. In order for the transaction to receive approval the transaction must result in the replication of a permissible asset, the maximum potential loss cannot exceed the sum of the cash and derivative component, and the term of the derivative component cannot exceed the term to maturity of the cash component.

### **RSAT Use Among Insurers**

Currently, only a small number of insurers use RSATs, including:

Allstate	Athene	AXA
Delaware Life	Fairfax Financial	Genworth
Hartford	John Hancock	Lincoln
MassMutual	Metlife	Nationwide
Odyssey Re	Principal	Prudential
RGA	Symetra	TIAA CREF
VOYA	Unum	

RSATs are used by these companies for the following purposes:

- Swap interest rates from floating to fixed.
- Swap the credit of a bond to the credit of another issuer or a basket of issuers.
- Swap the currency of a bond to another currency.
- Replicate stocks and exchange traded funds with total return swaps on stocks and equity indices.
- Replicate an inflation linked bond with a bond and a swap on CPI.
- Replicate a treasury with a TIPS security and a swap on CPI.
- Replicate a structured note.

### **Benefits of Replication**

Some of the potential benefits of replication transactions include:

- Positive basis trades – Potential for pick-up of return from the credit default spread versus the credit spread of the equivalent cash bond
- Enhanced liquidity relative to cash investment
- Yield enhancement
- Issuer diversification
- Risk reduction
- Capital charge benefits (e.g. replicate equity linked note to generate equity exposure)
- Ability to customize exposures and payoff to fit investment needs
- Potential for cost savings versus direct investment (e.g. replication of hedge fund or private equity exposure)
- Managing the timing of realized gains
- Manage counterparty risk exposure with derivative dealers
- Expand FHLB borrowing capacity by using FHLB eligible asset for cash portion of the RSAT

### **Statutory Accounting –RSAT**

The statutory accounting for an RSAT would be in accordance with SSAP No. 86-Accounting for Derivative Instruments and Hedging, Income Generation, and Replication (Synthetic Asset) Transactions (see attached page 18, #47-52) which provides multiple accounting options for the insurer

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to elect. If the replicated asset and the cash asset are ones that can be held at amortized cost (i.e. fixed income assets), the insurer has the option of valuing the derivatives at amortized cost or fair value.

If the derivative is held at amortized cost, any premium paid or received shall be carried as an asset or liability on the balance sheet and any premiums paid or received on the derivative should be amortized into investment income or expense until the exercise, termination or maturity date of the derivative.

If the derivative is carried at fair value, the periodic change in the fair value should be recorded as an unrealized gain or loss adjustment to surplus until the transaction is terminated. If the replication (synthetic asset) transaction involves the exchange of total return or change in index cash flows, then the cash flows should be segregated between interest income and fair value (equity) changes. The fair value (equity) change should be recognized as a deferred asset/liability until the termination of the contract. Gains or losses on the derivative at termination or sale should be recognized as realized.

Whether the derivative is held at amortized cost or fair value, the changes in value of the derivative prior to termination, sale, or maturity are not included in the statutory income statement.

### **GAAP Accounting – RSAT**

The derivative and the fixed income asset would be accounted for separately.

Fixed income assets are typically either designated as available for sale or as held to maturity. Available for sale means that the company likely will not hold the securities forever, but is not actively trading them. GAAP requires that these securities are also revalued at every balance sheet date, but the difference between the recorded value and the FMV goes to the equity section of the balance sheet. This ensures that these unrealized gains and losses -- which may not ever be realized -- do not affect the current year net profit of the company. Securities that are designated as held to maturity are recorded at amortized cost and interest plus any premium or discount that was paid for the bond is amortized into income over the life of the bond.

Derivatives that do not qualify for hedge accounting (which would be the case for an “RSAT” derivative) are reported at FV with changes in FV reported in current earnings.

It should be noted that under FASB ASU 2016-01, beginning December 31, 2017, equity investments will be required to be held at fair value and any changes in fair value recognized in net income. Accordingly, beginning in 2018, derivative and equity investment GAAP accounting will be on equal footing thus making replication of equity investments potentially relatively more attractive.

### **Tax Treatment**

The bond portion and the derivative portion would be separately taxable as each of those instruments would separately normally be taxed. The derivative portion may not be taxable until expiration or receipt of cash flows thus potentially providing meaningful tax deferral benefits.

### **Capital Treatment**

The regulatory and rating agency capital charges would be a capital charge on the book value of the replicated asset. The capital charge amount would be consistent with the asset replicated plus a separate modest counterparty risk charge on the value of the derivative. For example, the RBC charge for a derivative from a NAIC 1 issuer would be 0.4% of the derivative market value (not notional value).



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### **RSAT Advisory**

Montshire Advisors can evaluate where replication transactions can reduce transaction costs, capital charges and enhance returns for your portfolio and design replication transactions to meet desired investment objectives. Montshire Advisors has developed several conceptual structures for replicating equity linked notes which can substantially enhance the underlying bond yield and can include structural elements which dampen GAAP income statement volatility of the derivative portion.

### **About Montshire Advisors**

Montshire Advisors serves the life insurance industry with transactional oriented advice in several key areas: investment marketing and structuring, index and insurance product development, distribution development, reinsurance advisory and brokerage, and Federal Home Loan Bank advisory.

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