



Securities Valuation Office

Chris Evangel

Managing Director

212-386-1920

CEvangel@naic.org

Ray Spudeck, Ph.D.

Research Manager

212-386-1978

RSpudeck@naic.org

Shanique Hall-Barber

Research Analyst

212-386-1930

SBarber@naic.org

Dimitris Karapiperis

Research Analyst

212-386-1949

DKarapip@naic.org

Julius Vizner

Associate Research Analyst

212-386-1926

JVizner@naic.org

Anthony Urick

Credit Manager, SVO

212-386-1938

Pradip Vyas

Credit Manager, SVO

212-386-1950

Cathy Weatherford

NAIC Executive Vice President

816-842-3600

Web Address:

www.naic.org/1svo/index.htm

SVO Research

Insurer Asset Exposure to the Enron Default

Ray Spudeck, Research Manager

and Julius Vizner, Associate Research Analyst

■ Introduction

The extent of the U.S. insurance industry's exposure to Enron's bankruptcy has been the focus of the insurance regulatory community since December 2nd, the day Enron filed for Chapter 11 reorganization. Amid public speculation, evolving Congressional hearings, and a growing number of lawsuits, the actual dollar loss to the insurance industry might not be known for some time. An accurate assessment of industry exposure is complicated by Enron's highly complex financial structure, and the insurance industry's varied exposures to Enron through asset investment as well as underwriting.

This article focuses on the asset investment exposure of the U.S. insurance industry to Enron, its affiliates, and subsidiaries. The actual dollar losses, when this bankruptcy is finally settled, could be considerably different from the exposure numbers reported here. The data used are from the 2000 annual statements filed by insurers with the NAIC.

■ Investment Exposure to Enron

Various estimates of industry exposure have been released by different organizations since the Chapter 11 announcement. In its annual review of the life insurance industry, Fitch estimates that life insurers hold more than \$2.6 billion in Enron Corp. debt.¹ Moody's Investors Service reported life insurers as holding approximately \$3.9 billion in direct holdings of investments in Enron-related securities.² A.M. Best calculates that life industry holdings of Enron's debt total \$2.8 billion as of the third quarter 2001.³

Before assessing insurer asset exposure to Enron, an Enron investment must be defined. As public reports have been suggesting, Enron used a complex structure of affiliates and subsidiaries

Continued on page 2

¹ "Review and Outlook: 2001-2002 Life Insurance" Fitch IBCA, Duff & Phelps—January 17, 2002.

² "Enron and the U.S. Life Insurance Industry: No Credit Impact Evident at This Time" Moody's Investors Services—December 2001.

³ "A.M. Best Says Enron Bankruptcy is Costly to Insurers" BestWire Services—February 6, 2002.

Inside this issue:

Insurer Asset Exposure to the Enron Default	1
Replication (Synthetic Asset) Transactions	4
Foreign Sovereign Holdings by U.S. Insurers	9

Insurer Asset Exposure to the Enron Default (Continued)

**Figure 1. Direct Exposure to Enron Securities
Year-End 2000, (\$000)**

Bonds (Statement Value)	Common Stock (Market Value)	Preferred Stock (Statement Value)
\$1,582,234	\$403,517	\$166,488

Source: National Association of Insurance Commissioners.

to finance its growth and operation. Figure 1 above shows the industry aggregate investment in Enron's direct bonds and single risk credit linked notes (statement value), common stock (market value) and preferred stock (statement value). Figure 2 below presents the results of all identifiable Enron related entities and securities.¹ The situation is evolving: Dynegy acquired Enron's Northern Natural Gas pipeline business on January 3, 2002.

**Figure 2. Enron Related Entities and Securities
Year-End 2000, (\$000)**

	Bonds Held	Common Stock Held	Preferred Stock Held
Enron Corp.	\$1,582,234	\$403,517	\$166,488
Enron Related Entities			
ONEOK	\$653,576	\$4,576	
Marlin Water Trust	\$577,985		
Northern Natural Gas	\$323,844		
Enron Oil & Gas	\$323,745	\$77,631	\$54,817
Yosemite Sec.	\$201,838		
Spokane Energy	\$142,872		
Bushton Co.	\$141,518		
Wilton Trust	\$112,698		
Virginia Power	\$101,772		
Teesside	\$91,227		
HCC Looper	\$78,281		
Azurix Corp.	\$76,569	\$2,160	
European Power	\$70,000		
Osprey Trust	\$24,000		
TOTAL	\$4,502,161	\$487,883	\$221,304

Source: National Association of Insurance Commissioners.

Figure 2 summarizes the bond investment made by insurance companies in Enron and its affiliates. It is important to note that not all of these bonds have defaulted or may even be at serious default risk. Figure 3 below shows two additional entities with an Enron Relationship. These entities have not experienced the same credit deterioration as most of the entities in Figure 2. The first mortgage bonds issued by Portland General Electric, for example, still carry investment grade ratings (AAA for the issues insured by AMBAC and MBIA, BBB for the non-insured). Similarly, the first mortgage bonds issues by Florida Gas Transmission still carry a BBB (investment-grade) rating.

**Figure 3. Additional Enron Related Entities
Year-End 2000, (\$000)**

Entities	Bonds	Common Stock	Preferred Stock
Florida Gas	\$601,081	—	
Portland General	\$375,429	—	\$31,751
TOTAL	\$976,510	—	\$31,751

Source: National Association of Insurance Commissioners.

The total reported statement value is almost \$5.5 billion dollars. As with the other bankruptcy exposures previously reported in this newsletter, the insurance industry does not have a significant aggregate asset exposure to this bankruptcy event. Enron's bonds constitute less than 0.3 percent of total industry-wide bond investment. Only eleven insurance companies reported investing over 5 percent of their bonds in Enron.²

■ Comparing Enron to Other Recent Bankruptcies

While Enron's bankruptcy has created an enormous amount of media exposure, it was by no means the only bankruptcy or default of note in 2001. Indeed, bankruptcies and defaults during this recession have reached levels not seen in a decade. Yet, Enron is reported as the largest bankruptcy in history. To put the scale of the

¹ This list reflects entities identified by various public sources as having a relationship with Enron.

² Individual company exposures are available to regulators by contacting the author. Contact information is available on page 1.

Insurer Asset Exposure to the Enron Default (Continued)

**Figure 4. Insurers Exposure to Bankruptcies
Year-End 2000, (\$000)**

Credit	Bonds	Common Stock	Preferred Stock
Argentina	901,262		
Burlington	98,499	22	
California Utilities	2,585,322	12,471	199,974
Enron	5,478,671	487,883	253,055

Source: National Association of Insurance Commissioners.

potential Enron exposure to the U.S. insurance industry into perspective, it is useful to compare Enron to other noted bankruptcies occurring during 2001. Figure 4 above on shows the insurance industries bond investment exposure to Enron and 3 other highly visible defaults occurring during 2001, Argentina, Burlington Industries and the California Utilities (Southern California Edison, Edison International and Pacific Gas and Electric). The combined total statement value exposure across all of these credit events is slightly over \$9 billion. Enron represents over 60 percent of that total. The same disproportion is evident in common stock and preferred stock investment.

The rapidity with which the Enron bankruptcy hit the market took many investors, analysts and regulators by surprise. This stands in contrast to many other bankruptcies and defaults which can often take a considerable time to unfold. This difference between Enron and the other big credit events in 2001 can be seen in the insurer portfolio adjustments since year-end 2000 annual statements. That can be found on the quarterly financial statements.

Figure 5 reports the change in credit exposure seen in insurer bond portfolios from the 2000 annual statement through the end of the third quarter 2001. Data are reported in par value, as that is how the additions and deletions from the portfolios are reported in the quarterly statements. What is most striking about Figure 4 is that for each of the credit events except for Enron, insurers reduced

**Figure 5. Changes in Insurers Bond Exposure
(\$000)**

Credit	Year-End 2000	Net Change	As of Q3-01
Argentina	\$1,047,625	(\$584,487)	\$463,136
Burlington	\$105,545	(\$3,000)	\$102,545
California Utilities	\$2,722,316	(\$683,613)	\$2,038,704
Enron	\$5,511,309	\$244,356	\$5,755,666
SUM	\$9,386,795	(\$1,026,745)	\$8,360,050

Source: National Association of Insurance Commissioners.

their holdings of those bonds during the year. In contrast, investment in Enron as measured by par value actually increased by over \$200 million by the end of the third quarter.

■ Conclusion

Although in dollar terms, the U.S. insurance industry appears to have a substantial amount invested in Enron, the asset exposure relative to the aggregate industry portfolio of securities does not pose a significant threat to the industry's health at this time. Most insurers do not have more than 5 percent of their bond portfolios allocated to Enron. Of the eleven that do, all have less than 8 percent invested in Enron bonds. This suggests that, regardless of the evolution of litigation currently in progress, asset exposure to Enron related securities would not become a major issue for the industry.

This article has focused on just one aspect of the Enron bankruptcy, the invested asset exposure to Enron related securities. Not included was the underwriting and financial guaranty exposure. Also, the deterioration of the credit of companies involved in business dealings with Enron can be expected to impact the insurer portfolios as well. On the other hand, certain Enron subsidiaries listed in this article may not experience a significant adverse impact from the bankruptcy filing when this process is finally settled, which could take years.

Replication (Synthetic Asset) Transactions

Kevin Driscoll, Senior Credit Analyst, SVO

■ Introduction

In June, 2000, changes to the language of the *NAIC Purposes and Procedures Manual of the Securities Valuation Office* (the “P&P”) were approved that allowed insurance companies, with permission from their state regulators, to engage in the creation of synthetic assets. These synthetic assets are designed to mimic the behavior of otherwise permissible investments and represent a new use of derivatives by insurance companies.

Known as Replication (Synthetic Asset) Transactions (“RSATs”), these transactions involve a combination of one or more securities and one or more derivative instruments to replicate the performance of another (reference) security. For example, a U.S. Treasury Note could be combined with a credit default swap on a BBB-rated corporation. For an insurer this would result in an assumption of the credit risk of the BBB-rated corporation. The newly created synthetic BBB-rated bond would be treated as a single asset for risk-based capital purposes and for determination of compliance with investment limits.

Prior to approving the language allowing these transactions, derivative usage by insurance companies was limited to hedging purposes and, in some instances, income generation. In addition to the approval of the P&P language, which provides guidance on the valuation of RSATs, other components in the regulatory framework had to be adapted, including statutory accounting guidance, reporting requirements as well as reserve and risk-based capital procedures.

■ Derivatives Usage by Insurance Companies Prior to the Approval of RSATs

Prior to the approval of the framework for RSATs, insurance companies used derivatives primarily for hedging purposes and in some well-defined circumstances, income generation. For regulatory purposes, derivatives are defined as swaps, options, forwards, futures, caps, floors and collars. According to the Statement of Statutory Accounting Principle (“SSAP”) #31:

“A hedging transaction is defined as a derivative transaction which is entered into and maintained to reduce: (a) The risk of a change in the value, yield, price, cash flow, or quantity of assets or liabilities which the reporting entity has acquired or incurred or anticipates acquiring or incurring, or; (b) The currency exchange rate risk or the degree of exposure as to assets or liabilities which a reporting entity has acquired or incurred or anticipates acquiring or incurring.”¹

To qualify for hedge accounting, the derivative is to be designated as a hedge of a specific asset, liability, or anticipated transaction. The specific asset, liability, or anticipated transaction must expose the insurance company to a risk, and the designated derivative transaction must reduce that exposure. To satisfy the condition of risk reduction, the derivative must reduce risk according to an appropriate method. Insurance companies are required to set criteria for measuring the hedge and apply those criteria in an ongoing assessment of hedge results. For example, if the item being hedged is accounted for at amortized cost, the hedging derivative also is accounted for at amortized cost over the duration of the hedge. According to SSAP #31, income generation transactions are defined as:

“Derivatives written or sold to generate additional income or return to the reporting entity. They include covered options, caps, and floors (e.g., a reporting entity writes an equity call option on stock on which it already owns).”²

Because income generation transactions require writing derivatives, the insurance company may be exposed to potential future liabilities for which they receive a premium up front. As a result of this risk, dollar limitations and additional constraints are imposed so that the transactions are “covered” (i.e., offsetting assets can be used to fulfill potential obligations). The combination of a derivative and a covering asset works like a reverse hedge in that now an asset owned by the insurance company in essence hedges the derivative risk.

■ Replication (Synthetic Asset) Transactions

Background:

Insurance companies wanted to engage in replication transactions to create greater efficiency and flexibility in portfolio management. Perceived gains in efficiency and flexibility are anticipated to result from, among other factors: (a) savings on research and transaction costs; (b) more attractive risk/reward profiles; and (c) enhanced liquidity. In 1995 the Invested Asset Working Group (IAWG) was charged by the Valuation of Securities Task Force (VOS/TF) to research whether an appropriate framework for RSATs could be developed, and if so, to pursue its development.

Definition:

One of the most important and challenging tasks was to define “replication transaction”. It was desirable that one

¹ NAIC Accounting Practices and Procedures Manual, As of March 2001, p. 31–35.

² Ibid, p. 31-13.

Replication (Synthetic Asset) Transactions (Continued)

definition be used for all facets of regulation. After considerable discussion among and between regulators and insurance industry representatives, the following definition emerged:

“RSAT stands for Replication (Synthetic Asset) Transaction and means a derivative transaction entered into in conjunction with other investments in order to reproduce the investment characteristics of otherwise permissible investments.”³

Further:

“Although transactions structured with a futures or forward equity contract may not exactly reproduce a specific asset, these transactions are permitted to the extent such RSATs are permissible investments according to the insurer’s state of domicile. A derivative transaction entered into by an insurer as a hedging or income generation transaction shall not be considered to be a replication (synthetic asset) transaction. The insurer shall be responsible for determining that a derivative transaction is considered to be either a hedging, income generation or replication (synthetic asset) transaction prior to filing the transaction with the SVO. For a definition of hedging and income generation, see *Statement of Statutory Accounting Principals No. 31 in the NAIC Accounting Practices and Procedures Manual*.”⁴

RSAT Categories:

Having settled on definitional language, subsequent discussions focused on the types of RSATs that should be permitted. From the outset, insurance industry representatives envisioned RSATs falling into three main categories: A) Primarily single-asset replications; B) RSATs involving indices; and C) RSATs involving baskets of assets. The following is a listing and discussion of the approved categories.

(A) *Single-Asset RSATs:*

“Safe Harbor—Defined RSATs”—Throughout the course of discussions on RSATs, several transaction examples were provided by insurance industry representatives to the regulators. These examples proved very useful in addressing potential regulatory concerns such as the risk-based capital and appropriate statutory accounting treatment for these transactions. Although not exhaustive of all potential single-asset replication transactions, certain transaction examples came to be known as “Safe Harbor—Defined RSATs”. They also represented RSATs the insurance industry was most likely to engage in. For example, the following are three of the nine “Safe Harbor—Defined RSATs”:

- (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 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. A foreign currency swap can be structured on a fixed or floating rate bond. The swap can involve any currency.⁵

Despite the fact the preceding RSAT transaction types exemplify “Safe Harbor—Defined RSATs”, they are still required to be submitted to the SVO for review.

Recognizing that there may be replications that do not fall within the “Safe Harbor—Defined RSATs” category but nevertheless satisfied the RSAT definition, the following P&P language was included in the “Approved RSAT” definition:

“Transactions that are not structured according to one of the transaction types defined above must be submitted to the SVO for a determination of whether or not the transaction is an Approved RSAT. This determination shall be made through a review of the submitted documents that describe the characteristics of the derivative and cash components of the transaction. The description submitted shall include the following:

- (1) An identification of the cash flows in the transaction; both from the insurer to other parties and from other parties to the insurer.
- (2) An identification of the resulting synthetic asset.
- (3) A demonstration of how the cash flows serve to produce the synthetic asset.

The documentation should demonstrate that the combined cash flows will achieve the economic

³ Purposes and Procedures Manual of the NAIC Securities Valuation Office (SVO), December, 2001 Edition, Part Thirteen, Section 1(a)(viii).

⁴ Ibid.

⁵ Ibid, Part Thirteen, Section 1(a)(i)(A).

Replication (Synthetic Asset) Transactions (Continued)

performance sought to be produced by the insurer and, therefore, qualify the transaction as an Approved RSAT. If the SVO receives a transaction that does not qualify for an NAIC Designation but otherwise qualify as an Approved RSAT, the SVO will bring the transaction to the attention of the IAWG and await instructions on how to proceed with it.”⁶

(B) RSATs Involving Indices:

According to insurance industry representatives, replication transactions involving an index, or indices, are some of the most potentially useful types of RSATs. Index RSATs can be very useful to insurers to create the equivalent of an entirely diversified, broad-based, investment portfolio with no actual purchase of the underlying portfolio securities. This enables insurers to more rapidly reallocate assets and achieve portfolio diversification with a smaller investment while at the same time reducing transaction costs. Index RSATs may also provide a lower cost of entry to an investment sector. For example, an insurer may want to create a synthetic portfolio of investment grade bonds (the replicated asset) by combining government securities (the cash component) with a swap transaction (the derivative component) under which it pays a government security-linked rate of interest in return for receiving the total return of an appropriate investment grade bond index.

Consequently, it was important to define “index” as well as establish certain eligibility requirements before insurers could use indices for RSAT purposes. Indices are created and maintained according to consistent rules. “Index”, for RSAT purposes, is defined accordingly:

“Index means a composite of financial instruments whose composition is determined by application of objective, pre-defined rules to be used as a statistical benchmark. Financial instruments may be added to or deleted from the index universe.”⁷

Insurance companies are required to file an RSAT Fixed Income Index Form with the SVO for each RSAT they enter into using a fixed income Index. An insurance company may only enter into an RSAT using a fixed income Index if the Index is listed on the SVO’s RSAT Index list. Equity indices are not required to be on the SVO’s RSAT Index List as no credit quality evaluation is performed on equity investments. A fixed income Index may be eligible for listing on the RSAT Index List if the Index satisfies the following requirements: (a) The Index is composed and valued based on the application of objective, pre-defined

criteria; (b) Rating information about the components is available to the SVO; (c) All, or substantially all, of the Index components are rated, or have obligors that are rated, by a NRSRO (Nationally Recognized Statistical Rating Organization) or have received a current year NAIC Designation from the SVO; (d) The Index is predominantly composed of instruments whose issuers are unaffiliated with the Index vendor.”⁸

(C) RSATs Involving Baskets:

To the extent indices are actually a form of investment “basket” defined by rule, RSATs involving Baskets are transactions in which a non-rule-based basket of securities is created synthetically. In these transactions, the parties agree how the replicated “basket” is composed, and deletions occur only with their agreement. Since baskets are unique and not standardized, an approved list, which is required for RSATs involving Indices, is not a prerequisite or maintained. Given the customized nature of baskets, the following definition was approved:

“Basket means a composite of specific financial instruments that are determined by agreement between two parties to be used as a statistical benchmark.”⁹

Figure 1 on the top of page 8 contains a description of a hypothetical RSAT that involves the use of a credit default swap. This example serves to show how an RSAT is created, the rights and responsibilities of the various parties to the RSAT, and how the cash component, the reference asset and the credit derivative are related and used.

■ The Parts of the RSAT

In this RSAT, the synthetic asset created by Reporting Insurance Co. ABC is a fixed rate bond whose creditworthiness, through the credit default swap, is tied to Issuing Co. 123 (rated Baa1/BBB+; NAIC 2 equivalent). To accomplish this objective, Reporting Insurance Co. ABC (the “credit protection seller”) has combined one NAIC 1 security (previously mentioned Cash Component) with a credit default swap agreement between themselves and Broker/Dealer XYZ (the counterparty and “credit protection buyer”). Under the credit default swap agreement Broker/Dealer XYZ pays Reporting Insurance Co. ABC 2.40% of the notional amount on a quarterly basis for this credit protection. In the event of a defined credit event of Issuing Co. 123, Reporting Insurance Co.

⁶ Ibid, Part Thirteen, Section 1(a)(i)(B).

⁷ Ibid, Part Thirteen, Section 1(a)(vi).

⁸ Ibid, Part Thirteen, Section 7(c)(ii).

⁹ Ibid, Part Thirteen, Section 1(a)(ii).

Replication (Synthetic Asset) Transactions (Continued)

Figure 1. Description of Hypothetical RSAT Involving a Credit Default Risk Swap

* **Replicated (Synthetic) Asset Created:** Fixed rate note tied to the creditworthiness of Issuing Company 123.

* **Investment Objective:** Earning additional income of lower rated bond profile by taking on additional credit risk.

* **Components of the Transaction:**

Cash Component—\$5MM U.S. Treasury Note due 10/31/18; NAIC 1 Designation

Derivative Instrument—Credit Default Risk Swap that commences on 9/5/01 and terminates on 8/21/05

Reference Security—\$5MM Senior Subordinated Note due 10/31/06; Rated Baa1 (Moody's) / BBB+ (S&P), NAIC 2 Designation equivalent

Issuer of Reference Security—Issuing Company 123

Notional Amount: \$5MM

Rate: 2.40% on the notional amount

Payment Frequency: Quarterly (each August 21st, November 21st, February 21st and May 21st)

Credit Event of Credit Default Risk Swap—Bankruptcy, Failure to Pay, Obligation Acceleration

Settlement Terms: Physical Settlement of Deliverable Obligations

* **Parties to the Transaction:** Reporting Insurance Company ABC—Owner of Cash Component, “Credit Protection Seller”, and “owner” of Replicated (Synthetic Asset). Broker/Dealer XYZ—Counterparty, “Credit Protection Buyer”, NAIC 1 Counterparty Designation

* **Swap Documentation:** The documentation submitted associated with this hypothetical RSAT is a letter agreement (a.k.a. “Confirmation”), dated October 1, 2001 between Reporting Insurance Co. ABC and Broker/Dealer XYZ. The Confirmation supplements, forms part of, and is subject to, the ISDA (International Swaps and Derivatives Association, Inc.) Master Agreement dated July 27, 2001 between Broker/Dealer XYZ and Reporting Insurance Co. ABC. Definitions and provisions contained in the 1999 ISDA Credit Derivatives Definitions (as supplemented by the Restructuring Supplement, dated 5/11/01) are incorporated into the Confirmation.

ABC delivers to Broker/Dealer XYZ the notional amount (\$5MM) of the Cash Component listed above. Similarly, Broker/Dealer XYZ would deliver to Reporting Insurance Co. ABC the defaulted Senior Subordinated Note of Issuing Co. 123 (the “deliverable obligation”). (Note: In the event of a defined credit event, the credit default swap agreement would terminate and Reporting Insurance Co. ABC would no longer report the synthetic asset on Schedule DB-Part F but file evidence of the defaulted Senior Subordinated Note with the SVO and report it on Schedule D).

■ Effectiveness Testing

One of the important functions performed by the SVO in the review of RSATs is effectiveness testing. Initially, some regulators had considered effectiveness testing strictly within the realm of a regulatory function. Other regulators commented that from a practical standpoint the SVO would have to be more involved. Another option explored was to determine the extent to which independent accounting auditors included the effectiveness review process in their audit scope.

Finally, after considerable discussion on this topic the following definition was developed and approved:

“Effective RSAT means a reported transaction that meets the following conditions:

- (A) The transaction is determined to be an Approved RSAT and;
- (B) The replicated (synthetic) asset is an otherwise permissible investment and;
- (C) At the time the RSAT is entered into, the insurer’s investment in the cash and derivative components have a market value that is not materially different from the market value ascribed to the RSAT and;
- (D) The insurer’s maximum potential loss in the Replicated (Synthetic) Asset does not exceed the aggregate of the book/adjusted carrying value of the Cash Component and the derivative components and;
- (E) The RSAT consists of a fixed income Cash Component and a derivative component and the term of the derivative component does not exceed the term to maturity of the Cash Component and;
- (F) At no time is there exposure to a derivative transaction without a corresponding Cash Component assigned exclusively to the Replicated (Synthetic) Asset.”¹⁰

The SVO’s role is to verify that the RSAT meets those standards of effectiveness in steps (A), (D), (E), and (F). The insurance company’s responsibility is to ensure that conditions (B) and (C) have been satisfied.

Applying these conditions to the hypothetical RSAT in Figure 1 and assuming that Insurance Co. ABC satisfied conditions (B) and (C), the hypothetical RSAT would be considered an effective RSAT as it satisfies the following conditions:

- (A) The hypothetical RSAT is one involving a credit

¹⁰ Ibid, Part Thirteen, Section 1(a)(v).

Replication (Synthetic Asset) Transactions (Continued)

default risk swap (i.e., a “Safe Harbor—Defined RSAT”), thereby, meeting one of the “Approved RSAT” requirements.

- (B) Reporting Insurance Co. ABC initially invested \$5MM in the Cash Component while the notional value of the credit default swap agreement is \$5MM. Consequently, Reporting Insurance Co. ABC’s, “... maximum potential loss does not exceed the aggregate of the book/adjusted carrying value of the Cash Component and the derivative components.”
- (C) The hypothetical RSAT “consists of a fixed income Cash Component (U.S. Treasury Note) and a derivative component (credit default risk swap) and the term of the derivative component (terminates 8/21/05) does not exceed the term to maturity of the Cash Component (matures 10/31/18)”.
- (D) To the extent the Cash Component (U.S. Treasury Note) is the same dollar value (\$5MM) of the notional value (\$5MM) of the credit default risk swap, “at no time is there exposure to a derivative transaction without a corresponding Cash Component assigned exclusively to the Replicated (Synthetic) Asset.”

■ Assignment of NAIC Designation

Upon determining whether or not an RSAT is effective, the next function performed by the SVO is assigning a NAIC Designation to the Replicated (Synthetic) Asset. In the hypothetical RSAT, the Reporting Insurance Company ABC, through the credit default risk swap, is assuming greater credit risk (since the Reference Security is rated Baa1/BBB+, the equivalent of a NAIC 2 Designation), than that of the Cash Component (NAIC 1 Designation). Consequently, the SVO would assign a NAIC 2 Designation to the Replicated (Synthetic) Asset.

■ Statutory Reporting of RSATs: Schedule DB—Part F

Since 1994, insurance company reporting of derivative contracts is detailed in Schedule DB, with the types of derivatives reported in separate parts, accordingly:

- Part A—Options, Caps, and Floors Owned
- Part B—Options, Caps, and Floors Written
- Part C—Collars, Swaps, and Forwards
- Part D—Futures
- Part E—Counterparty Exposure

As the existing parts of Schedule DB reported the use of derivative instruments for hedging and, in some instances, income generation purposes, the approval of replication transactions required that a new part (“part F”) be developed to properly report this activity. One of the major

points in developing this new part was the regulatory desire for the disclosure of “fair” values for each of the three components (cash instrument, derivative instrument, and replicated (synthetic) asset created) of the RSAT reported. Although “statement” values, described as if the company had purchased and accounted for the component as it would appear on related statutory Schedules, were necessary for risk-based capital purposes, regulators reiterated their desire for the disclosure of such “fair” values. Although “market value” had been considered, it was decided that since such a value could be an amortized value it would not be appropriate for Part F. Finally, there was also regulatory preference to prioritize the sources from which fair value could be obtained. Consequently, the following “fair value” reporting instructions were approved:

“The fair value is the value at which the instrument(s) could be exchanged in a current transaction. Amortized or book values should not be substituted for fair value. Below is a list of fair value sources. Public market quotes are the best indication of fair value. If public market quotes are not available, the company should seek a fair value from items b) through e).

- a) Public Market Quotes
- b) Fair Value Provided by Broker
- c) Management Estimate
- d) Pricing Service
- e) Pricing Matrix

Companies should document the determination of this value.”¹¹

■ Conclusion

The completion of the NAIC framework for RSATs represents the culmination of a considerable amount of work by regulators, industry representatives, and various NAIC staff members. In today’s competitive marketplace where distinctions between traditional providers of financial services is increasingly blurring, the new replication framework enables insurers to have access to a broad range of derivative instruments that may be prudently used in their investment accounts. Similarly, the new framework enables insurance regulators to regulate and assess appropriate risk charges for derivative instruments used in a new way. As mentioned in the outset, although an NAIC framework has been completed, ultimate permission to engage in RSATs is dictated by state insurance investment laws and insurance department regulations. Ultimately, legal counsel should be consulted for state-by-state determinations.

¹¹ NAIC Annual Statement Instructions, Schedule DB—Part F—Section 1.

Foreign Sovereign Holdings by U.S. Insurers

Ray Spudeck, Research Manager
and Julius Vizner, Associate Research Analyst

■ Introduction

The growth and innovation occurring in the global financial marketplace continues to offer institutional investors new investment portfolio opportunities. In addition to non-U.S. corporate borrowing, the level of financing used by nations (both established and developing) and their municipalities is at record levels. U.S. insurers have increasingly taken advantage of the investment and portfolio management opportunities available through these sovereign debt securities.

This article is part of a continuing series on the U.S. insurance industry's investment in "foreign" securities. Previous articles have detailed insurer investment in Canada and its provinces, and in Latin America. This article provides a summary of the distribution of foreign sovereign investment around the globe.

■ Why Foreign Sovereigns

There are a myriad number of reasons for a U.S. insurer to invest in foreign sovereign bonds. The bonds may offer a promised return that, either when paid in dollars or converted to dollars, is perceived as superior to other government investment when adjusted for the inherent risks. Commonly, a U.S. insurer will invest in a foreign sovereign bond as a way to manage their exposure to the risk of currency exchange rate fluctuations if they do business offshore, or if they are an offshore company doing business in the U.S.

Insurers may also invest in foreign sovereigns as a way to diversify their portfolio risk, as the returns available from these bonds may not be perfectly correlated over the business cycle. The degree of correlation of returns of sovereign bonds is of particular interest during this latest swing in the business cycle. On January 11, Federal Reserve Chairman Alan Greenspan remarked that the Federal Reserve had "observed a coincident deceleration in activity among the world economies over the past year." Translated, this means a global economic slowdown. The result is that, at least during this economic episode, the correlations between the returns and risk of sovereign nations appear to be more highly correlated than was previously thought.

■ Some Different Considerations

Investment in foreign sovereign bonds requires a knowledge and understanding of considerations not relevant to domestic bond investment. A foreign nation may default on its borrowings.¹ In such a default, the rights

and remedies available to bondholders can be much different than those that usually pertain to domestic bond investment. The existence of credit support from any number of other government or multilateral agencies, such as the preferred creditor status afforded some sovereigns, can also serve to alter not only the likelihood of a default but the recovery consequences available should a default occur. More recently, one of the multilaterals has offered the possibility of a new mechanism that would afford financially distressed nations the equivalent of bankruptcy protection. An upcoming issue of this Monthly will talk more about this mechanism.

A country may also impose restrictions on the ability of an entity to either convert currency or transfer a currency out of the country. Some multilateral agencies have offered political risk insurance for select borrowers to protect investors from these risks. More recently, private insurance firms have begun offering similar insurance, in some cases even expanding the coverage.

Finally, of course, the investor may have a choice between investing in a foreign sovereign debt payable in its own, domestic, currency or payable in U.S. dollars. Bondholders make their choices based on their motivation for investing in the sovereigns. Those investments designed as a currency hedge are likely to be made in domestic currency instruments and those investments designed to achieve yield enhancements or portfolio diversification would be directed to those bonds the investor felt offered the best "fit."

■ The Data

The data used here are from the annual statements (Schedule D, part 1) filed by life insurance and property/casualty insurance companies with the NAIC. In aggregate, total sovereign investment, as shown in Figure 1 below, amounted to \$26 billion in statement value (out of \$1.92 trillion of total bond statement value investment). Further, the bulk of the foreign sovereign investment was made by the life insurance industry, totaling \$20.2 billion (77.5% of total sovereign investment). In contrast, the property/

Figure 1. Sovereign Investment by Industry
(\$000)

	Statement Value	% of Total Industry
Total Industry	\$26,107,941	
Property/Casualty	\$5,878,136	22.5%
Life	\$20,229,804	77.5%

Source: National Association of Insurance Commissioners.

¹ See "Preferred Creditor Status of Multilateral Development Banks," Gary Mescher, SVO Research Monthly Newsletter, April 2001, and "Argentina, the IMF, and Currency Boards," Gary Mescher, SVO Research Monthly Newsletter, November 2001.

Foreign Sovereign Holdings by U.S. Insurers (Continued)

**Figure 2. Top-Ten Sovereign Investment by Nation
2000, (\$000)**

	Nation	Investment
1.	Japan	\$6,612,058
2.	Canada	\$4,703,009
3.	Mexico	\$1,734,783
4.	Israel	\$1,142,540
5.	Brazil	\$1,039,149
6.	Argentina	\$879,284
7.	Panama	\$727,260
8.	Poland	\$723,025
9.	Philippines	\$688,682
10.	Colombia	\$638,114

Source: National Association of Insurance Commissioners.

casualty industry held \$5.9 billion (22.5% of the total). The credit quality of these sovereigns can vary, but on the whole is good. The average dollar-weighted NAIC designation of bonds listed in Figure 1 is 1.75.

In terms of where the investments were made, Figure 2 lists the ten sovereigns representing the largest dollar investment. U.S. insurers held \$6.6 billion statement value of Japanese government bonds. This figure may be a little misleading. One company held \$5.7 billion (85%) of that investment. According to this company's annual report (form 10-K), filed with the Securities and Exchange Commission, 81% of this insurer's revenues originated with their Japanese operations. This level of investment in Japanese governments would then appear to be a currency and economic hedge for this insurer.

The next largest investment was in Canada. As documented in the November 2001 issue of the *SVO Monthly Newsletter*, the majority of Canadian bond

investment occurred in Canadian municipal borrowings, not national borrowing.

Investment in Mexico totaled \$4.7 billion. Recently, the ratings agencies have upgraded Mexico's sovereign debt rating to investment grade. Fears of spillover effects from Argentina to all of Latin America have apparently not been realized, at least for Mexico.

U.S. insurers held \$879 million of Argentine debt at the beginning of 2001. Aggregate holdings had been reduced to \$463 billion by the third quarter. In what amounts to the largest sovereign default in history, Argentina suspended payments on its massive national debt (estimated at \$132 billion).

Fears of contagion effects, the vulnerability of even healthy economies to crises of confidence created by events elsewhere in the world, have not been observed following Argentina's action. Analysts attribute emerging market immunity to advance awareness of the impending Argentina default, as well as increased investor sophistication.²

A limiting factor in the analysis is that it relies on group codes as maintained within the SVO database. As these group codes are provided by industry when a security is filed with the SVO, the data in this article is not exhaustive.

■ Concluding Comments

Recent events highlight the increasing economic and financial volatility of the growing markets for foreign sovereign bonds. To that end, articles reporting on major developments occurring in the international arena will regularly appear in this Monthly. Future articles will look more closely at government investment in various regions of the world. In addition, U.S. insurer investment in foreign corporate securities will be examined.

² Vogel, "Latin America's Financial Contagion Loses its Virulence," *Financial Times* (November 28, 2001).



NATIONAL ASSOCIATION OF INSURANCE COMMISSIONERS

Executive Headquarters

2301 McGee Street
Suite 800
Kansas City, MO 64108
Phone: 816-842-3600
Fax: 816-783-8175

**Federal and International
Relations**

Hall of the States
444 North Capital Street NW
Suite 701
Washington, DC 20001
Phone: 202-624-7790
Fax: 202-624-8579

Securities Valuation Office

1411 Broadway
9th Floor
New York, NY 10018
Phone: 212-398-9000
Fax: 212-382-4206

Web Address:

www.naic.org

© Copyright 2002, National Association of Insurance Commissioners, all rights reserved.

The National Association of Insurance Commissioners (NAIC) is a voluntary organization of the chief insurance regulatory officials of the 50 states, the District of Columbia, American Samoa, Guam, Puerto Rico and the Virgin Islands. The NAIC provides its members with a forum for discussing common interests and for working cooperatively on regulatory matters that transcend the boundaries of their own jurisdictions.

The views expressed in this publication do not necessarily represent the views of NAIC, its officers or members. All information contained in this document is obtained from sources believed by the NAIC to be accurate and reliable. Because of the possibility of human or mechanical error as well as other factors, however, such information is provided "as is", without warranty of any kind. **NO WARRANTY IS MADE, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY OPINION OR INFORMATION GIVEN OR MADE IN THIS PUBLICATION.**