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# SVO Research Quarterly

We are pleased to re-introduce you to the SVO Research Quarterly. We intend to publish on a consistent basis. Our goal is to assist regulators in their insurer solvency monitoring function. To accomplish this we aspire to provide coverage of emerging investment issues, trends and risks in the financial markets as they pertain to the insurance industry. Our experienced and knowledgeable research professionals along with our seasoned credit analysts seek to share informative articles on the latest developments in the world of finance and provide a unique insight into some of the most noteworthy transactions that come through this office.

We welcome your thoughts and comments and any ideas for future articles.

Chris Evangel

## Life Insurance Securitization

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### ■ INTRODUCTION

In a maturing structured finance market with an expanding range of securitized asset classes life insurance companies, not surprisingly, have started to explore opportunities to raise capital, fund reserves and/or transfer risk. Insurers, like many other businesses generate assets that will generate cash flow over a number of years. Securitization is one way to convert these assets into needed financing. In fact, life insurance product securitization is the most dynamic of all the new asset classes seen throughout late last year and early this year. According to the weekly *Asset-Backed Alert*, six life insurers are planning to issue as much as \$6 billion of structured securities backed by expected premium payments during 2005.

### ■ DRIVERS OF DEMAND FOR SECURITIZATION

Although securitization has been used by both property/casualty (p/c) and life insurers, and could conceivably accomplish the same objectives for both, it has been used far more extensively by p/c than life companies and for entirely different purposes. P/c insurers have used securitization primarily for hedging the risks of property catastrophes from natural disasters like hurricanes and earthquakes. In contrast, life insurers are relative newcomers to the market and have employed securitization mainly for financing purposes, such as the financing of acquisition costs, and for regulatory relief, as in transactions motivated by Regulation Triple-X (see next page).

Demutualizations and the financial sector convergence that occurred as a result of financial

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## Life Insurance Securitization (Continued)

deregulation have been significant motivating factors for the securitization of life insurance.

The conversion of a mutual into a stock life insurance company creates an economic conflict between participating policyholders and the new company's stockholders. To resolve this conflict and to protect the participating policyholders' contractual right to receive dividends, the company needs to create a closed block of participating life insurance policies. A closed block is an arrangement by which dividend-paying policies are isolated from the rest of the company in order to preserve the reasonable dividend expectations of policyholders. The cash flow from the closed block secures the payment of dividends of participating life insurance policies. Funded with high quality assets and intended as a self-supporting asset separate from the insurer's ongoing business, the closed block is an ideal candidate for securitization, permitting the insurer to monetize today the value of the expected profits from the underlying assets. The process frees up capital that can be used in more profitable pursuits more consistent with the stock insurer's new business mission. A side benefit of closed block securitization, but equally as important for an insurer, is a more favorable view from the credit rating agencies.

Aside from demutualizations, securitization can be very advantageous for life insurers that are confronted with new business strain, i.e. fast growth. Such an insurer would incur significant acquisition costs that can create undue stress on statutory surplus. To relieve the pressure on statutory surplus, the life insurer can securitize the embedded value of an existing block of business thus removing it from the balance sheet and at the same time realize future profits today. Thus, the securitization of embedded value can improve the insurer's leverage position and provide the funds to finance additional growth.

Another important driver of life insurance securitization is related to the Valuation of Life Policies Regulation, commonly known as Regulation Triple-X. Triple-X determines the statutory valuation requirements for most life insurance policies, in particular, level-premium term, Universal Life with secondary guarantees, and some whole life plans, issued on or after January 1, 2000. Essentially, Regulation Triple-X seeks to address concerns about reserve adequacy for future obligations by increasing statutory reserve requirements. Increased statutory requirements have created pressure on some insurers to fund these reserves. The required reserves build-up and disappear over the life of a product like a 20-year level-term life insurance (see Figure 1), creating a capital strain equal to the difference between the economic reserves (less conservative calculation using best estimate assumptions) and the statutory reserves.

Typically, life insurers turn to the reinsurance market to alleviate capital reserve strains. Recently, though, the limited supply of reinsurance has made it uneconomical and increasingly difficult to obtain the needed reinsurance. Insurers, therefore, have started to look to the capital markets for alternative solutions. Moody's estimates that insurers' letter of credit (LOC) demand for Triple-X reserve credit could increase to approximately \$45 billion by 2007. The future capacity of the capital markets is a major advantage when compared to LOC availability. In addition, the net impact of future credit spreads is minimal since both sides of the balance sheet are affected.

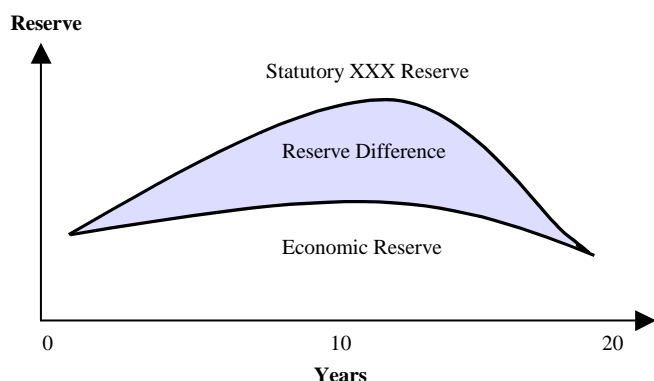
Regulation Triple-X securitization involves the issuance of non-recourse debt by a special purpose vehicle. The debt is used to fund the extra reserve required by the regulation. These securitization transactions not only provide regulatory relief but also some additional benefits that include tax advantages, greater flexibility in the use of capital and no adverse effects on the insurer's capital structure since the collateral account is held off the balance sheet.

The transfer of risk, particularly mortality risk, is another factor driving life insurance securitization. Such transactions are used to protect life insurers against adverse mortality risk. An insurance company could securitize the mortality risk associated with a block of life policies with issued bonds tracking the actual mortality experience under the block. Unlike closed block securitization, discussed above, mortality risk transactions cover only the mortality risk and not any other risk that can affect the overall profitability of the block of life insurance policies.

An alternative approach to mortality risk securitization is a

*(Continued on page 3)*

**Figure 1. Regulation XXX Reserve Strain**



# Life Insurance Securitization (Continued)

structure not unlike a CAT bond. Just like a CAT bond, which covers p/c insurers against property catastrophes, a mortality risk bond is designed to protect a life insurer against higher than expected mortality using a parametric mortality index trigger.

## ■ CLOSED BLOCK SECURITIZATIONS

As part of its demutualization, in December 2001, Prudential executed a closed block securitization of participating life insurance policies. Through a newly formed intermediate, Prudential Holdings, Prudential raised \$1.75 billion by issuing \$332.85 million of Series A floating rate insured notes, \$776.65 million of Series B fixed rate notes, and \$640.5 million of Series C notes. The

Series A and B notes were rated “Aaa” by Moody’s while the Series C note was rated “A2” by the same agency. Each tranche was designed to appeal to different classes of investors, including those that prefer investment grade corporates and those that participate in the asset-backed market. Prudential also issued \$175 million worth of “Class B” stock that is designed to track the value of the closed block.

The closed block is funded with \$57.7 billion in statutory assets, which are about 94% of the \$61.3 billion in statutory liabilities as shown in Figure 2. Typically, a closed block is funded with assets covering around 90% of

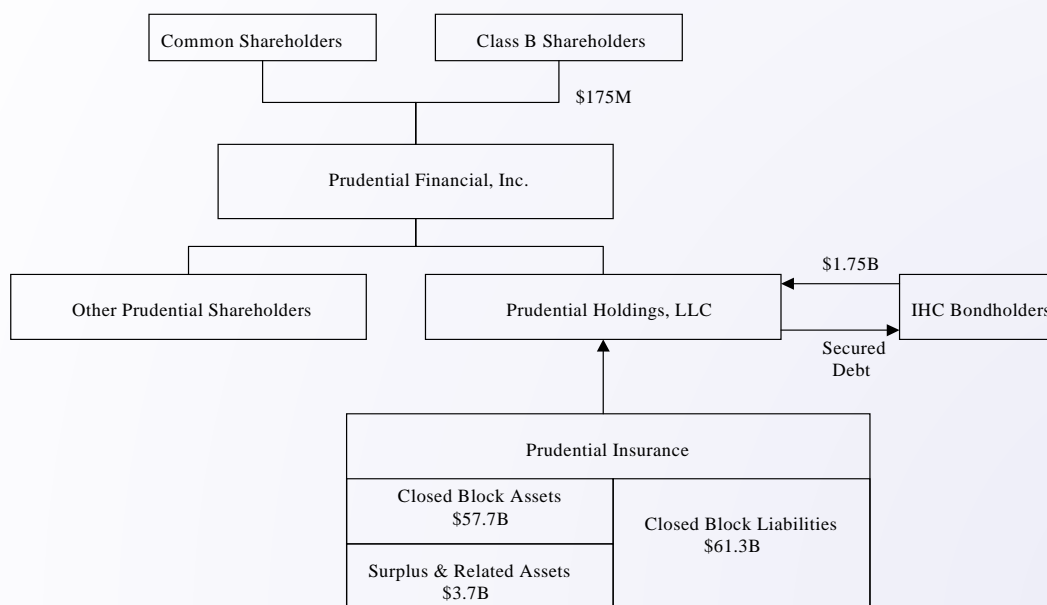
the liabilities. The insurer is expected to manage the dividend scales for the block policies so that the assets are sufficient to support the liabilities until maturity. On top of those assets, other assets are maintained to cover the difference between the statutory assets and liabilities in order to satisfy regulatory requirements. These assets are known as the surplus and related assets. Prudential has allocated \$3.7 billion (Figure 2) for this purpose. In order to protect the bondholders, Prudential also set up a debt service coverage account (DSCA) using 25% of the proceeds of the bond issue or \$438 million providing significant over-collateralization to the deal. For additional protection, 15% of the shares of Prudential Insurance were pledged to the bondholders.

Another type of bondholder protection, typical in demutualization closed block securitizations of participating life insurance policies, is the insurer’s ability to adjust dividend payments to reflect adverse mortality, investment, or lapse experience. As a final measure both Series A and B were insured through a financial guarantee to secure their “Aaa” credit rating.

In 2002, MONY life insurance raised \$300 million by securitizing the closed block that was set up as part of its demutualization. The structure of the MONY transaction was very similar to the Prudential transaction as it was issued by a holding company, formed for that reason, and a

*(Continued on page 4)*

**Figure 2. Closed Block Securitization**



## Life Insurance Securitization (Continued)

credit wrap was provided by a third-party guarantor. The MONY transaction was rated “Aaa” by Moody’s and “AAA” by S&P.

There were two other notable transactions securitizing future profits from blocks of life insurance policies. The difference is that the Forethought Life Insurance securitization in July 2004 and the Swiss Re securitization in January 2005 were undertaken as part of acquisitions rather than demutualizations.

FLAC Holdings issued \$50 million of its series A Floating Rate Insured Notes, and \$100 million of its Series B Floating Rate Insured Notes. The proceeds were in the most part (85%) used to fund the acquisition of Forethought Life Insurance Co. and its affiliates from Hillenbrand. The transaction received a “AAA” credit rating by S&P. The decision to securitize the embedded value was facilitated by the fact that this was a large stable block of preneed insurance policies characterized by low persistency risk, predictable mortality and favorable earnings.

Swiss Re has successfully completed its first embedded value securitization from its portfolio of U.S. life policies. The asset backing the securitization is the expected future profits from five blocks of life insurance policies. Those blocks consist of business resulting from Swiss Re’s acquisitions of Guarantee Reserve Life, Royal Life, The

Midland Life, Allied Life and American Merchants Life. Swiss Re raised \$245 million with issues \$175 million of Series A Fixed Rate Notes rated “A”, \$45 million of Series B Fixed Rate Notes rated “Baa” and Series C Fixed Rate Notes rated “Ba” according to a Moody’s new issue report.

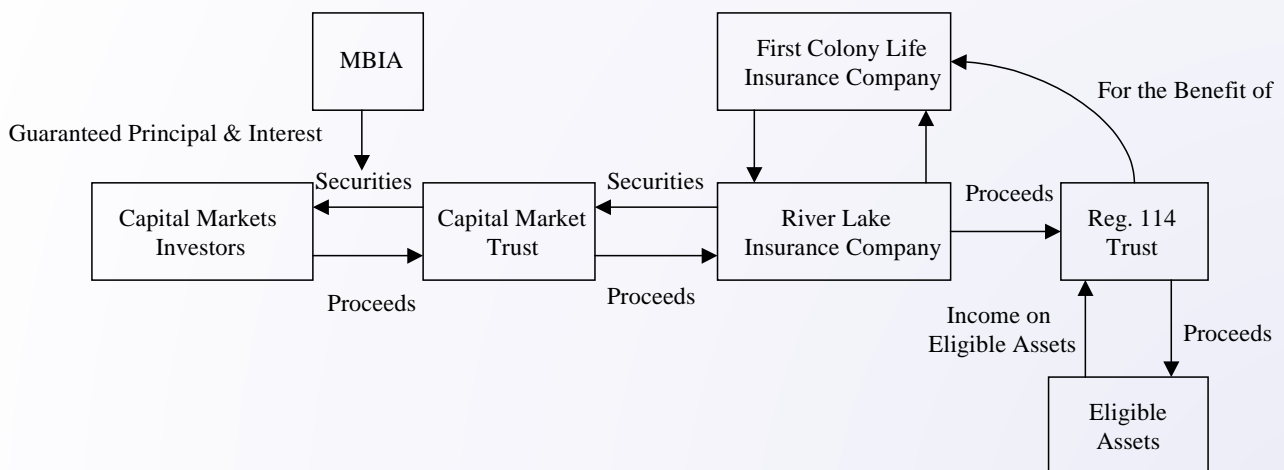
A Swiss Re news release touted the benefits of the transaction, claiming that by transforming insurance risk into tradeable securities the company could turn intangible assets into cash, which otherwise would have been realized slowly over time. According to Swiss Re, the securitization of the embedded value allowed the company to use its capital more effectively while improving shareholders’ return on the risks flowing through its balance sheet.

### ■ TRIPLE-X SECURITIZATIONS

In 2003, Genworth Financial’s subsidiary, First Colony Life Insurance Co. issued, through a special purpose vehicle (SPV), River Lake Insurance Company, \$600 million of non-recourse floating rate notes, to fund additional statutory reserves required by Regulation Triple-X. The SPV issued equity capital to First Colony in return for cash and surplus notes to a capital market trust securing the needed proceeds to issue the notes to investors (Figure 3) (the insured notes have received a “AAA” credit rating by S&P). The funds in turn were invested in a credit trust in order to qualify for treatment as reinsurance for regulatory purposes. Thus, First Colony, with this structure, reduced its statutory leverage

(Continued on page 5)

**Figure 3. Triple X Securitization**



## Life Insurance Securitization (Continued)

by transferring its Regulation Triple-X requirement to River Lake.

Also, Scottish Re has completed an \$850 million transaction through its newly formed subsidiary, Orkney Holdings. In this transaction, the first of its type for a reinsurer, Scottish Re coinsured a block of business to an indirectly owned captive reinsurer, Orkney Re. Scottish Re contributed the initial surplus to capitalize both Orkney Re and Orkney Holdings and paid reinsurance premium to the first. In this structure, Orkney Re would receive the proceeds from the issuance while the securities would be serviced from dividends paid to Orkney Holding by Orkney Re. Orkney Holdings has invested part of the proceeds in high quality assets within a trust account. This portion is the difference between the economic and statutory reserves required at Scottish Re. The regulatory reserves funded by this transaction were associated with level premium term life policies written in 2001-2003 and reinsured by Scottish Re. The transaction was structured such that the securities have no recourse to the sponsoring insurer, Scottish Re, and its affiliated entities other than Orkney Holdings. The securities have been guaranteed by a financial guarantor and rated “AAA” and “Aaa” by S&P and Moody’s respectively.

### ■ RISK TRANSFER SECURITIZATIONS

Risk transfer securitizations are used to protect life insurers against extreme mortality events and longevity risk in the case of annuity and pension products.

A popular transaction focusing on mortality risk is the securitization of a pool backed by life insurance policies

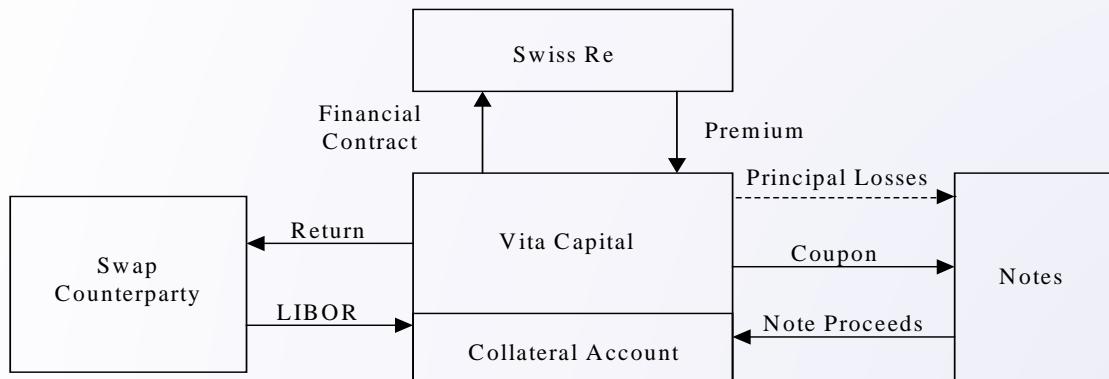
and life annuities (LILACs). These transactions have been developed to take advantage of mortality arbitrage opportunities.

In a straight risk transfer transaction, using an analogous structure to that of a CAT bond, Swiss Re, in December 2003, successfully securitized catastrophic mortality risk. Swiss Re issued a fixed-income security whose principal payment was linked to adverse mortality scenarios. The mortality trigger is based on a parametric mortality index. A weakness of index-based mortality risk bonds is that the securitized instrument is not perfectly correlated with the underlying results of the issuing insurer thus creating “basis risk”. However, basing the payoff on a mortality index instead of the specific mortality experienced by the insurer has the advantage of reducing investor concern of possible moral hazard.

In structuring the transaction, Swiss Re (Figure 4), set up a special purpose vehicle, Vita Capital, which issued \$400 million of Principal At-Risk Variable Rate Notes. Investors that bought the notes effectively provided four years of reinsurance coverage to Swiss Reinsurance Company, limited to \$400 million against potential cumulative losses from extreme mortality risk. Proceeds of the issuance could be invested only in permitted high-quality investments and held in trust in a collateral account. Vita Capital, to hedge investment risk, entered into a total return swap with a swap counterparty. A total return swap is a credit risk transfer between two parties involving the payment of the total economic performance of the specified asset (the counterparty pays the receiving party) contingent to general and normal market valuation changes and not a

*(Continued on page 6)*

**Figure 4. Mortality Risk Transfer Securitization**



## Life Insurance Securitization (Continued)

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specific credit event. In this case, the swap counterparty would bear the risk of investment loss and would pay the extent of any realized losses to the issuer. Swiss Re obtained a call option on the proceeds in return for the premium payments it made to Vita Capital. This option is triggered when the “combined mortality index value” exceeds 130% of the actual mortality numbers in the indexed pool in 2002. Losses are exhausted (the full amount of the proceeds goes to Swiss Re) when the index reaches 150% and vary linearly between these two points. The transaction did not receive any credit enhancement and was assigned a rating of “A3” by Moody’s and “A+” by S&P

### ■ CONCLUSION

The increasing demand for asset-backed securities and the way the life insurance securitizations have been received by the capital markets indicates not only that there is room for expanded use of securitizations, but also an appetite for this type of transactions. In an evolutionary sense, the insurance industry stands now where the banking industry was more than 25 years ago.

Securitization can be an important and effective risk management tool for insurers. The transactions that have been completed to date show that securitizations can aid life insurers to manage capital more effectively. Efficiency is further enhanced by the ability to transfer risks to capital markets reducing transaction, agency and other costs. Most of the past transactions have been driven in whole or in part

by regulation as in the case of demutualization closed-block and triple-X deals.

Due to their nature, life insurance securitizations are quite complex and therefore very costly to execute. This fact makes all but the largest deals prohibitively expensive. The relative newness and complexity of these transactions, where so many factors like mortality, persistency regulatory compliance risk and insurer policy decisions interact, has allowed for a significant degree of informational asymmetry between the issuer and the investors. To combat the lack of familiarity with these transactions, by even the most sophisticated investor, most of them had to be over-collateralized and credit-enhanced with third party guarantees. Greater transparency to further understanding of the underlying risks of life insurance securitizations (risks directly related to closely held information like underwriting standards, contract design and actuarial modeling) and creative tranching structures could overcome informational and moral hazard problems. Over time, as these securitizations become more common, costs should be reduced increasing the likelihood of more and smaller transactions.

The last evolutionary step of life insurance securitization would be a move towards public transactions. This would make the whole capital market accessible and not only a part, as it is now with the transactions being almost exclusively private placements.

# US Corporate Pensions

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The next time you fly, forgive the flight crew if they seem a bit grumpy. The otherwise perky stewardesses might be disgruntled by the fact that US Airways recently terminated retirement benefits for 51,000 workers and transferred the liability to the Pension Benefits Guarantee Corporation (PBGC), a federal agency that insures the retirement of 34.6 million workers. To the dismay of pilots expecting six figures annually in retirement, the PBGC sets a cap on benefits of 45 thousand dollars a year.

## ■ THE PBGC

The case highlights the problems posed by defined benefit plans to US corporations and the government-sponsored insurer that takes them over from troubled companies. The PBGC used the opportunity of taking over US Airway's pension to remind the public and lawmakers that it could not go on assuming huge retirement plans indefinitely. Its own long-term solvency has been drawn into question as more and more large companies in labor-intensive industries such as steel and aviation have sought to shed their debt to workers in bankruptcy court. One issue facing the agency is that the premiums that companies pay in to the system was set at \$19 per worker in 1991 and has not changed since then. Secretary of Labor Elaine Chao, chairman of the Board of the PBGC proposed in January that, in order to more appropriately price the risk of plan termination, premiums must be raised.

## ■ TOO OPTIMISTIC?

Doomsayers were predicting catastrophe in America's corporate landscape due to the underfunding of pension obligations a few years ago when the stock market was in free fall and interest rates were in decline. Pollyanna pension managers were seen as assuming too optimistic asset returns in order to hide the large amount of cash owed their retirees. In addition, falling interest rates were only making matters worse by increasing the present value of future obligations.

Since then, the economy has delivered a mixed bag. While equity returns have strengthened—a recent study by Mercer Investment Consulting puts the ten-year return for corporate plans at about ten percent on average—returns on assets still trail the returns managers assumed their investments would earn. And, although the Federal Reserve has raised its benchmark rate numerous times

**Defined Benefit Plan:** An employer-sponsored retirement plan for which retirement benefits are based on a formula indicating the exact benefit that one can expect upon retiring. Investment risk and portfolio management are entirely under the control of the company. The payouts made to retiring employees participating in this defined benefit plan are determined by factors such as salary history and the duration of employment.

**Defined Contribution Plan:** A retirement plan wherein a certain amount or percentage of money is set aside each year for the benefit of the employee. There is no way to know how much the plan will ultimately give the employee upon retiring. The amount contributed is fixed, but the benefit is not.

Source: [www.investopedia.com](http://www.investopedia.com)

since this time last year, long-term corporate bond yields have not followed suit. All things being equal, lower interest rates increase the pressure on a CFO to set aside more money for the funding of future benefits.

Looking at the world of future returns through rose-tinted glasses also muddies the water for an analyst intent on understanding a company's finances. Because US accounting standards allow estimated earnings rather than actual returns from pension fund investments to be reported on the income statement, corporations can disguise losses or boost results to achieve a better-looking balance sheet. Indeed, some companies have relied heavily on assumed returns in lean times to bolster the net income they report to investors.

Weyerhaeuser, for example, reported pension fund investment income of \$437 million in 2001 when it actually lost \$412 million. Although 2001 certainly contained some surprises for market participants, would-be pension reformers would like to see a company take more explicit accountability for the performance of its pension plan. On the other hand, those in favor of the status quo point out that one can find this information in the footnotes to the financial statements.

## ■ LOOKING AHEAD

The battle over proposed corporate pension reforms pits unions against their members' employers. Airline lobbyists demand relief from the burdens of their pension obligations in order to remain competitive. Pilots, on the

*(Continued on page 8)*

## U.S. Corporate Pensions (Continued)

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other hand, want to maximize their retirement windfalls. One tool management has to bring unions to the bargaining table is the threat of plan termination through bankruptcy—no idle threat in light of US Airways. Indeed, unions have proposed benefit cuts in a bid to stave off their transfer to the PBGC.

Any corporate pension reform will have to balance the interests of retirees and the corporations funding their

benefits. In any case, the percentage of employees with defined benefit plans has been in steady decline for years, according to the Bureau of Labor Statistics. Americans are increasingly funding their golden years either through defined contribution plans or doing without work-based retirement plans altogether. The controversy over defined benefits is at risk of being a moot point if this trend continues.

# Introduction to Credit Default Swaps

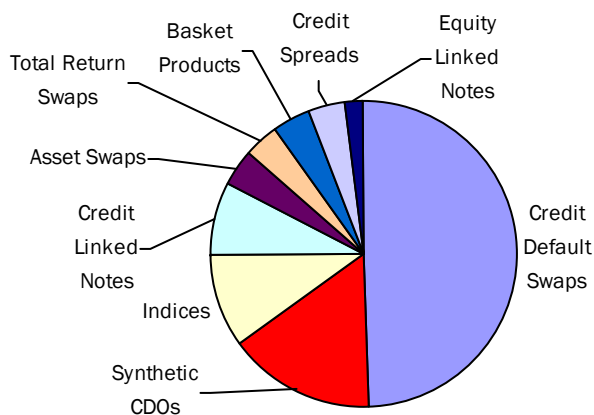
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## ■ INTRODUCTION

The credit derivative market has grown significantly over the last several years and is expected to reach \$8.4 trillion by the end of 2006 compared to \$3.5 trillion at the end of 2003 and just under \$1 trillion in 2000<sup>1</sup>. Banks, securities houses and insurance companies still comprise the majority of market participants, however, hedge funds have emerged as major players in the market.

Credit Default Swaps (or CDS) are the most popular and commonly used type of credit derivative. They originated in the mid 1990's and continue to dominate the credit derivative market today. According to recent research by the British Bankers' Association (BBA), credit default swaps account for 51% of the global market for credit derivatives—up from 45% in 2001 (Figure 1)<sup>2</sup>. Although still in a nascent state, the credit default swap market has experienced considerable growth over the past several

**Figure 1. Global Credit Derivative Market by Type**



Source: British Bankers Association (BBA), Credit Derivatives Report, 2003/2004 Survey.

## Basic Definitions

**Reference Obligation:** The bond or loan that represents debt of a particular seniority.

**Reference Entity:** The issuer on which you want to buy/sell protection.

**Credit Events:** Triggers for delivery under the contract.

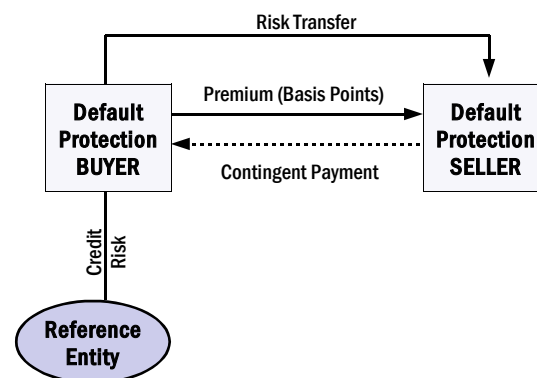
**Credit Risk:** Risk of loss following default.

years and is expected to double in size over the next two years.

## ■ WHAT ARE CREDIT DEFAULT SWAP?

A credit default swap, similar to an insurance contract or a financial guarantee, is the most straightforward type of credit derivative. According to the International Swaps and Derivatives Association (ISDA), a credit default swap is a credit derivative contract in which one party (protection buyer) pays a periodic fee to another party (protection

**Figure 2. Basic Structure of a Credit Default Swap**



seller) in return for compensation for default (or similar credit event) by a 'reference entity' or 'reference obligation'<sup>3</sup> (Figure 2).

Simply put, credit default swaps are financial instruments designed to allow for the transfer of pure credit risk from one counterparty to another. This allows the credit risk of the financial instrument to be transferred without actually transferring legal ownership of the asset.

Credit risk is one of the most difficult risks to quantify and manage. The credit default swap market gives the investment community many opportunities to diversify this risk. Corporate bond investors usually buy credit default swaps for protection against default by an issuer of the corporate bond. For example, an investor holding bonds issued by a company could use a credit default swap to insure against credit risk.

Credit default swaps can be offered on a single-reference credit (single-name CDS) or on a portfolio or basket of

(Continued on page 10)

<sup>1</sup> British Bankers Association Credit Derivative Survey, 2003/2004.

<sup>2</sup> Ibid.

<sup>3</sup> International Swaps and Derivatives Association Over The Counter Derivatives Documentation, www.isda.com.

## Introduction to Credit Default Swaps (Continued)

reference credits. In a single-name credit default swap the protection seller assumes the credit risk of a single entity whereby only one entity is protected. Whereas in a portfolio, the buyer and seller agree upon a small group of reference credits or structured transactions. CDS range in maturity from one to 10 years, although the 5 year is the most frequently traded.

### ■ PAYMENTS/SETTLEMENT

In a credit default swap, the buyer of protection pays a premium to the protection seller in return for protection against predefined credit events experienced by the reference entity and is compensated if and when credit events occur during the tenor of the contract. The premium is usually paid quarterly and is expressed in basis points (bps). Payments under a credit default swap are triggered by the occurrence of clearly defined credit events. These

**Figure 3. ISDA Credit Events**

*The six Credit Events under ISDA Definitions are:*

1. Bankruptcy	The reference entity becomes insolvent or is unable to pay its debts.
2. Obligation Acceleration/	The debt obligations of the issuer
3. Obligation Default	become due before their originally scheduled maturity date.
4. Failure to Pay	The reference entity fails to make interest or principal payments when
5. Repudiation/Moratorium	The issuer of the underlying bond (the reference entity) rejects their debt, effectively refusing to pay interest and principal.
6. Restructuring	The configuration of debt obligations is changed in such a way that the credit holder is unfavorably affected.

*Source: PIMCO, Bond Basics, January 2005.*

credit events, or predefined risks, are based on the standards set by the International Swaps and Derivatives Association (ISDA) (Figure 3).

The counterparties to a credit default swap trade decide which credit events they wish to apply. The three credit events included most often are: (1) bankruptcy, (2) failure to pay, and (3) restructuring. Payments under a credit default swap only cover the embedded credit risk. Risks arising from other factors, such as interest rate movements, remain with the buyer.

### Example of a Cash-Settlement Under a Credit Default Swap

*Thirty days after a company defaults, its bonds are valued at 30 cents on the dollar. If the notional of a cash-settled credit default swap referencing that entity's bonds is \$10 million, the protection 'seller' would be required to make a payment of \$7 million to the protection 'buyer'.<sup>4</sup>*

Upon the occurrence of a credit event, the two main ways a credit default swap can be structured are cash settlement and physical settlement (settlement terms are determined when the CDS contract is written). In a cash settlement, after a specified period of time (e.g. 30 or 60 days), the protection seller would pay the difference between market value of the reference entity and par (instead of having an obligation delivered). The specified period of time is needed to determine where the reference asset is trading.

In a physical settlement, the protection buyer would deliver to the protection seller an obligation (e.g. typically a bond or loan) meeting the criteria specified in the contract and in return the protection buyer will receive par.<sup>5</sup> Physical settlement is the market standard—according to BBA, 86% of credit derivative transactions use physical settlement.

### ■ RISKS

The average credit quality of a credit default swap tends to be high (AA+ or higher), however, there are a number of areas where risk can occur. One area is the “credit event” dispute. In a credit default swap, investors’ risk is driven by the definition of “credit event”. The definition of “credit event” should be consistent with a well-understood and measurable definition of default. Although documentation for credit derivatives have become more standardized and sophisticated, the definitions published by ISDA are, in many respects, broader than the common understanding of “default” and impose risk of loss from credit events that are not defaults. The broader the definition, the broader the risk.<sup>6</sup> An example of this type of risk is when Bank of America and Chase announced the extension of loans to Conseco Corp. While this helped Conseco avoid immediate bankruptcy, the loan extension was technically declared a restructuring and a credit event.

Other notable risks are product development and

*(Continued on page 11)*

<sup>4</sup> Moody's Investors Services, *Understanding the Risks in Credit Default Swaps*, 2001.

<sup>5</sup> Dresdner Kleinwort Wasserstein Research (DRKW), *Introduction*, September 11, 2002.

<sup>6</sup> Moody's Investors Services, *Understanding the Risks in Credit Default Swaps*, 2001.

## Introduction to Credit Default Swaps (Continued)

regulation. Since credit default swaps are rapidly expanding (new product types launch on a monthly basis) and relatively new to the market, valuation methods for transactions are not as analytically developed as they are for other financial instruments. The pace and innovation of the market has made it difficult for investors to regulate and keep up. According to ISDA, it continues to develop industry guidelines to improve liquidity and transparency in the market.

### ■ CONCLUSION

Credit default swaps are very popular because they are the building blocks for most credit derivative structures such as collateralized debt obligations (CDOs) and credit linked notes (CLNs). They are the easiest and most liquid way to trade credit risk and are often a more sensitive indicator of an issuer's health. Compared to bonds, credit default swaps offer greater flexibility and a large array of investor types.

The market's initial growth started at a time when corporate loan defaults reached their highest levels since the great depression. Although global default rates are currently at cyclical lows, it should not be a complete comfort. Moody's Investor Services has recently indicated that the global speculative grade default rate is at a turning point and predicts that default rates will gradually begin to rise by the end of the year.

Compared to U.S. property and casualty companies, U.S. life insurance companies own the bulk of credit derivatives (Figure 4). Fitch Rating Agency predicts that the global

**Figure 4. Insurer's Investment in Credit Derivatives\*  
(Par Value, Billions)**

	<u>2002</u>	<u>2003</u>	<u>2004**</u>
Life	8,536	7,109	4,572
P/C	963	816	580
<b>TOTAL</b>	<b>9,499</b>	<b>7,925</b>	<b>5,152</b>

Source: NAIC/NOS Database.

\* Annual Data as of March 1, 2005. Data includes CDOs, CBOs, CLOs and CLNs.

\*\* New FE Rule could account for the decrease in reported holdings.

insurance and reinsurance sector will continue to be major sellers of protection.

The credit derivative market has weathered several high-profile collapses (e.g. Enron, WorldCom, Parmalat) and continues to function efficiently which will likely lead to further growth in the credit default swap market. A recent report in the Wall Street Journal noted that credit default swaps are an effective early indicator of financial difficulties in a credit party.<sup>7</sup> Alan Greenspan, the Federal Reserve Chairman has nothing but praise for these instruments arguing that hedge funds' arbitrage activity makes markets more efficient and keeps the financial system fluid and flexible. A follow up article will focus in more detail on the insurance industry exposure to credit derivatives as well as how the market prices these instruments.

<sup>7</sup> Volaw Trust Company, *Securitising Credit Default Swaps*, 2005.

# Home Equity Loan Securitization

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## ■ INTRODUCTION

The asset-backed market is currently experiencing an incredible growth, with issuance continuing its record-setting pace. This unprecedented growth has market observers and analysts wondering how long can the asset-backed securities (ABS) market continue to defy gravity. Demand still far exceeds supply as evidenced by the current tight spread levels and ABS values, which have already reached historic highs and keep climbing. In overall issuance, the home equity loan (HEL) backed sector is leading the ABS market, as it attracts a bigger slice of the ABS demand because all the other sectors have tightened so much. So far this year, new HEL transactions total about \$37 billion, up from \$27 billion during the same period last year.<sup>1</sup>

## ■ HOME EQUITY LOAN MARKET

A home equity loan is a secured loan made to a homeowner whose house serves as collateral. Home equity loans include all residential real estate loans except prime quality first-lien mortgage loans and manufactured housing loans. Therefore, HEL asset-backed securities are generally backed by sub-prime mortgages, second lien mortgages, high LTV (loan-to-value) loans, home improvement loans and home equity lines of credit (HELOCs). Sometimes reperforming and non-performing loans are included as part of the HEL backed sector. HEL asset-backed securities are situated, in terms of the structured finance space, somewhere between traditional mortgage-backed securities (MBS) and non-real estate asset-backed securities (ABS).

Sub-prime mortgages are first lien mortgages to sub-prime borrowers. Sub-prime mortgages may be fixed-rate, adjustable rate or some type of hybrid arrangement. By their very nature, sub-prime mortgage loans are considerably riskier than prime-quality mortgages. Today, most HEL asset-backed securities are backed by sub-prime mortgages and the trend is likely to continue, as the sub-prime market has been very strong and generally crisis-free for several years.

Second lien prime mortgages are typical home equity loans. They are riskier than prime quality first lien loans due to their significantly higher loss severities in case of defaults. Second mortgages comprise only a very small portion of the entire HEL ABS market.

Home equity lines of credit are secured (by a house that serves as collateral) revolving credit lines. Just like second lien mortgages HELOCs are much riskier than prime quality first lien loans for the same reasons. HELOCs mimic the structure of credit cards, making a HELOC securitization a credit card ABS deal's twin. The risk of the pool increases along with the "utilization rate", (i.e. how much a HELOC is used).

A high LTV mortgage is like a second mortgage, when combined with a first lien mortgage results in a substantially higher value than the value of the property that is used to secure the loan. With the loan to value ratio being turned on its head, it is not surprising that high LTV mortgages are available almost exclusively to high quality borrowers.

## ■ HEL ASSET-BACKED STRUCTURES

The simplest home equity ABS is an insured (by policies from "AAA"- rated insurers) single class pass-through transaction. These type of transactions employed both excess spread and overcollateralization as the first loss protection and were quite common before 1997. Shortly afterwards, the market started seeing the first senior-subordinated transactions, which still continue to dominate the issuance.

HEL asset-backed securities have either a fixed or floating interest rate with one-month LIBOR being the usual index. In tranced deals, designed to provide risk support to the senior classes by distributing risk along seniority levels, a time element is often being added. This additional enhancement is referred to as time tranching and its purpose is to shift prepayment risk among multiple classes. Time tranching is accomplished by dividing cash flows from the securitized assets among the various classes so that some classes receive principal prepayment before others. Time tranching is commonly used in collateralized mortgage obligations (CMOs).

Typically, there are three levels of credit enhancement in a HEL ABS senior-subordinated structure. First is excess spread, which functions as the first line of defense against credit losses. Excess spread is the remaining net interest payments from the underlying asset, i.e. the pool of securitized home equity loans, of the HEL ABS security, after all payables and expenses are covered. Excess spread can amount to several percentage points a year that is available over the life of a deal, which is analogous to a subordinated interest-only security.

*(Continued on page 13)*

<sup>1</sup> Asset Backed Alert Database ([www.abalert.com](http://www.abalert.com)).

## Home Equity Loan Securitization (Continued)

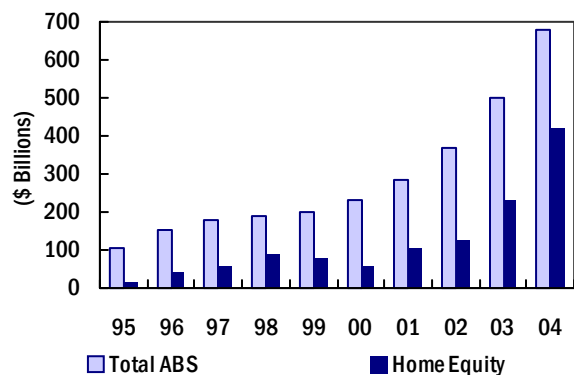
Excess spread is primarily used to cover current period losses. The remaining excess spread is used to repay principal of the most senior class, a practice that is sometimes called “turboing” the senior class. The difference that is created between the balance of the pool and the balance of the securities is the overcollateralization. HEL asset-backed securities typically have a certain target of how much overcollateralization needs to be accumulated. Once this target level is reached, and assuming the deal meets a series of performance tests called trigger tests, any excess amounts can be distributed to residual certificates. The overcollateralization provides protection against losses that are above the excess spread in a given period. In cases where losses are charged against the accumulated overcollateralization, excess spread collected in subsequent periods is used to build overcollateralization back up to the target level. Excess spread and overcollateralization are the key elements of credit enhancement considered by rating agencies.

### ■ HEL ABS ISSUANCE AND OUTLOOK

The HEL asset-backed market has seen explosive growth since the mid-1990s. To gain some perspective of the growth rate it is worth noting that while in 1995 HEL ABS issuance totaled about \$17 billion or 16% of the entire ABS market, by 2004 issuance had grown to \$412 billion or 66% of the ABS market (Figure 1). So far this year of a total ABS issuance of \$95 billion, HEL ABS comprise 39% of that or \$37 billion.<sup>2</sup>

The HEL asset-backed market should continue on the same path for the remainder of the year with a projected issuance

Figure 1. ABS and HEL Issuance



Sources: 2003 Mortgage Market Statistical Annual Report, Bloomberg L.P., and Asset-Backed Alert ([www.abalert.com](http://www.abalert.com)).

at about the same level as last year, if not slightly lower.<sup>3</sup> While last year it was interest-rate only loans that kept the market going, it remains to be seen what issuers will do this year to keep issuance volume at similar levels.

For the remainder of 2005 spreads are expected to marginally widen, from the current, unsustainable for many, tight levels. There is nothing on the near-term horizon that could derail the market<sup>4</sup> with the only possible trouble spot for HEL ABS being a credit downturn for the lower-rated tranches of securities issued before the rating agencies implemented their new rating assumptions.<sup>5</sup>

<sup>2</sup> Asset Backed Alert Database ([www.abalert.com](http://www.abalert.com)).

<sup>3</sup> SourceMedia, *Asset Backed Alert Report*, February 21, 2005.

<sup>4</sup> SourceMedia, *Asset Backed Alert Report*, March 4, 2005.

<sup>5</sup> Nomura Fixed Income Research, *U.S. Fixed Income 2005 Outlook/2004 Review*, December 16, 2004.

# A Primer on Real Estate Investment Trusts (REITs)

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## ■ GENERAL DEFINITION

According to Moody's Investor's Services (Moody's) "A Real Estate Investment Trust (REIT) is a company that owns and operates income-producing real estate, such as apartments, shopping centers, offices and warehouses". Please note the phrase, "... is a company..." in the preceding description. This cannot be stressed enough in addressing REITS from a credit analytical perspective. REITs are creatures of the tax code, which permit pass-through entities to serve as tax exempt conduits for real estate investors, provided REIT status is maintained. Among the most important tax code requirements is that 75% of the REIT's net income must be derived directly or indirectly from investments relating to real property, or mortgages on real property, and that 95% of its taxable net income be distributed to shareholders. If a company fails to maintain its qualification as a REIT, it will not be eligible again to elect REIT status for five years. Failure to qualify as a REIT would subject the company to U.S. federal income taxes on its taxable income at the regular corporate rates.

Intent - The Real Estate Investment Trust Act, passed by Congress in 1960, created REITs. The idea was to apply the concept of a mutual fund to real estate, and to give small investors the opportunity to hold a diversified, tax-efficient portfolio of real estate assets. For tax purposes, REITs are considered as intermediaries, and not as corporate entities, and as such do not pay corporate income taxes; the double taxation at the corporate and personal level is thus avoided.

## ■ HISTORY

Until 1968, the REIT concept attracted few investors. Between 1969 and 1975, REITs (particularly mortgage REITs, authorized since 1967) became a popular investment vehicle. Total REIT assets increased from \$1 billion at year-end 1968 to \$20.5 billion at the end of 1974. The asset-liability structure of the industry in the early 1970s proved somewhat risky. REITs' borrowings, mostly in the form of commercial paper and short-term bank borrowings, outpaced their equity offerings, and by 1974 the industry's overall ratio of debt to equity reached the multiple of 3.4 to 1. By borrowing short term and lending long term, REITs (especially mortgage REITs) benefited from a steep yield curve, and were able to achieve attractive returns. But in 1973 the tide turned: Interest rates rose dramatically, wiping out margins earned by playing the yield curve game. To make matters worse, a national

recession and an overbuilt real estate market harmed developers and generated a wave of loan defaults. The result of all this was a wave of REIT failures and debt defaults. The typical scenario occurred in two steps. First, a REIT, already in financial troubles and unable to rollover its commercial paper, was constrained to borrow under the irrevocable letter of credit that often supported the commercial paper program in order to pay the commercial paper holders. At maturity, the bank that issued, and lent under, the irrevocable letter of credit ended up with a nonperforming loan as the condition of the REIT worsened. During the first half of the 1970's, the typical REIT in 1974 had a large portfolio of land, development, and construction loans. The major source of funds was short-term debt - including commercial paper.

REIT's rebirth started in 1983, but it was not until 1986 that the REIT industry's aggregate balance sheet surpassed 1974 levels. Between 1983 and 1993, the average annual growth of the REIT industry's aggregate balance sheet was close to 25%. Several factors can explain this high growth: 1) Banks and insurance companies became owners of real estate through foreclosures on their mortgage loans, and had no intention of keeping them on their balance sheets. REITs became attractive financing and disposal vehicles. 2) Many developers actively tried to sell their properties before their mortgages came due. REITs were one outlet. 3) Many real estate partnerships decided to convert to REIT status to help them gain access to long-term capital, refinance debt and decrease leverage. The Tax Reform Act of 1986 made REITs more appealing. By reducing the tax shelter opportunities of real estate, tax reform made the REIT structure comparatively attractive. The REIT renaissance was broadly evident by 1993, spurred by improving real estate markets and low interest rates. This resulted in a boom in REIT initial public offerings of common equity (IPO's), which represented 22% of all IPO's in the U.S. in 1993, in dollar terms, and raised a little over \$9 billion. In total, \$15 billion was raised, 90% of which was in the form of equity. Most of the funds raised were used to deleverage.

During the latter half of the 1990's, the volume of preferred stock outstanding for the REIT industry grew tremendously, from \$1.4 billion in 1994 to over \$22.4 billion at the end of 1999. More recently, as REITs continue to outperform companies in the S&P 500—having done so for more than a year now—a growing number of REITs believe the time is right to raise additional common equity. Within the past month alone, six REITs have issued common stock. Another of those six also issued equity back in January. Such offerings have come amid a few but

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## A Primer on Real Estate Investment Trusts (REITs) (Continued)

significant consolidations in the REIT industry. In summary, REITs today are generally much larger, better financed and better managed than their counterparts of the 1970s.

### ■ CATEGORIES

REITs can be classified within 5 broad categories:

(1) Equity REITs – Invest primarily in commercial real estate assets. Classification as an Equity REIT requires that 75% of the assets be invested in income-producing real estate (the actual brick and mortar). They form the largest group of REITs and tend to have a lower risk profile than other REIT categories.

(2) Mortgage REITs – Invest in, originate, and/or manage portfolios of mortgages or mortgage-related securities, such as Commercial Mortgage-Backed Securities (CMBS) and Collateralized Mortgage Obligations (CMOs).

(3) Health Care REITs – Specialize in the ownership of health-care facilities such as congregate care, assisted living, nursing homes, medical office buildings and hospitals, which are generally run by health care providers. These REITs also provide sale/leaseback and mortgage financing, and can best be seen as a financing tool for health-care firms.

(4) Hybrid REITs – Tend to invest in both commercial real estate and commercial mortgages. There are only a few of these, and most are involved in health care properties.

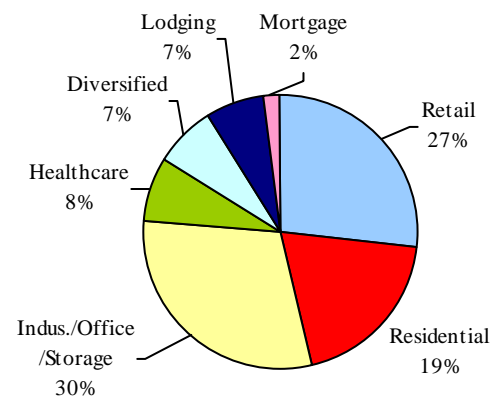
(5) Self-liquidating REITs – Are REITs that dispose of their assets by a defined maturity date, with the proceeds being distributed to shareholders. There are very few of these.

From the late 1960's until the mid-70's, a considerable portion of the REIT universe was comprised of Mortgage REITs. However, from the mid-70's to the present, the Equity REIT structure has become the dominant REIT structure and now accounts for about 87% of the REIT market on a market capitalization basis. According to the National Association of Real Estate Investment Trusts (NAREIT), there are approximately 1,000 REITs operating in the U.S. today of which 180 are registered with the Securities and Exchange Commission (SEC). Of those registered with the SEC, the majority of their stock trades on the New York Stock Exchange. Total assets of these listed REITs exceed \$400 billion.

### ■ ASSET TYPES

According to NAREIT, as of October 2004, the following is a breakdown of REITs by asset type:

### REIT by Asset Type



Source: National Association of Real Estate Investment Trusts (NAREIT).

1. Retail Shopping Centers – This asset type tends to offer the most stability of cash flow and value. Shopping centers range from neighborhood centers (< 100,000 sq. ft. of gross leasable area) to super-regional shopping centers (800,000 sq. ft. or more). Of primary concern to the success of these properties is site visibility, area demographics, and ready access to local roads and highways. Large regional or super regional malls represent perhaps the highest quality asset type within this category. Furthermore, regional malls tend to have considerable barriers to competitor entry because they possess a large tract of land in an infill location, and they also sign on the dominant anchors in the market. These malls generally feature three or more good quality anchors, a diversified base of smaller tenants, and an absence of developable land that limits the opportunity for new competition. Particular attention is given to "dark anchor" risk, which pertains to the likelihood of an anchor closing down its operations while maintaining its lease obligations. This would have an obvious negative effect on the overall property, and is avoided by the inclusion of covenants in the anchor lease that govern conditions under which operations must be maintained.

2. Multifamily/Apartment – Apartment REITs are holders of multifamily real estate; however, they do not comprise a significant portion of the multifamily housing industry (< 2% of U.S. housing stock). Apartment communities owned by investment-grade REITs are generally high quality. Although this asset type tends to be relatively stable, nevertheless there is a significant drop in stability in relation to regional malls due to the short-term nature of its leases and the weaker ability to control a market area. Characteristics of this property type include a rapid tenant turnover, which leads to a strong sensitivity to current market conditions, and the potential for rapid market

(Continued on page 16)

## A Primer on Real Estate Investment Trusts (REITs) (Continued)

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changes based on new construction and changes in local employment rates. Despite the potential for significant volatility in individual property cash flows, many multifamily REITs are well diversified by state and local market which limits exposure to individual properties and particular economies. Apartments tend to be a stable asset class, but there is some drop in stability in relation to, for example, regional malls. Multifamily units tend to possess fewer “franchise value” characteristics.

3. Industrial – Industrial real estate properties represent a diverse group of products with distinct features. The most stability is provided by warehouses, light flex space, and distribution facilities that are built to current standards and are readily adaptable for other tenants, as well as those located in substantial, healthy manufacturing or distribution centers that can serve as a source for new tenants. Vital to industrial properties are local labor sources, proximity to major roadways and rail lines, proximity to suppliers and customers, and major employers in the market area. This asset type was a stable segment for many years, but declines in manufacturing employment and a recent rise in vacancy rates have been sources of concern.

4. Storage Facilities – Or so called mini-warehouses, have specific risk characteristics that tend to make them more stable than some other forms of commercial real estate assets. They enjoy low break-even occupancy levels (approx. 30-35%), have a diversified tenant base (predominantly individuals), and are simple to operate. However, self-storage properties are viewed more as a management-dependent operating business than as location-dependent assets. While stabilized self-storage facilities tend to have low break-even occupancy levels, and modest capital maintenance demands, they are usually located in locations that are not attractive for alternative uses. Barriers to entry also tend to be low.

5. Office – Among the most volatile asset classes because high vacancy rates in most markets have created intense competition for tenants and falling rents. Although the office property markets have made a dramatic turnaround, the dramatic glut of office-space that plagued the industry in the early 1990’s is still within recent memory. Office properties face uncertainty from having tenant lease terms shorter than the debt outstanding, with little or no assurance (a) that the tenant will re-lease its space, or (b) that the owner will be willing or able to carry the building until a new tenant can be found. Key credit factors for commercial office properties include occupancy levels, tenant diversity and credit quality, lease maturities, and the relation of existing lease rates to current market rates.

6. Hotels – Rating agencies consider hotels to be a highly volatile asset class, and the closest to being operating businesses rather than real estate assets. Not only is the net operating income unstable because of daily changes in occupancy and room rates, but hotels are also management-intensive. Other leisure properties, such as golf courses and destination resorts, are also viewed like an operating business.

7. Health Care – Most of the rating agencies view health-care REITs as funding vehicles for the health care industry, unlike most REITs whose mission is to provide services to a variety of space users. Consequently, the potential volatility of cash flows reflects the operator’s business fundamentals more than the underlying value of the real estate assets. This being said, unfavorable trends dampen certain segments of the health care industry, which renders certain operators and their physical facilities more vulnerable. Most health care REITs provide lease and mortgage financing to facility operators on initial ten year terms with subsequent renewal options. Investments are structured to enable health care REITs to earn a base level of rent/interest that is augmented by percentage rents. Leases are typically underwritten on a “triple net” basis, which means the lessees (i.e. operators) of the facilities are responsible for the maintenance of physical plant, insurance and taxes.

8. Mortgage – Although not considered an “asset type”, mortgage REITs primarily depend on the credit of the loans and on asset-liability management. For those mortgage REITs that are essentially leveraged investment portfolios in structured mortgage-backed securities guaranteed by U.S. Govt. agencies, there is little credit risk. However, for mortgage REITs that invest in private MBS or in whole loans, some of which are of low credit quality, it can be a different matter.

Generally speaking, mortgage REITs make money by attempting to maximize the spread between their assets and liabilities. This is a business that can depend heavily on fairly sophisticated mortgage prepayment simulation of modeling of portfolios under different interest-rate scenarios. Some mortgage REITs also originate mortgages for investment, sale or securitization. This type of business presents special risks, such as the sudden illiquidity of assets targeted for sale, pipeline financing, and residual risks from securitizations. Given these characteristics, “franchise” values for mortgage REITs tend to be low.

Finally, it should be noted that REITs can be, and are occasionally, formed to accomplish specific tax-related objectives that do not yet fall within any of the above asset

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## A Primer on Real Estate Investment Trusts (REITs) (Continued)

types. For example, some banks have formed REITs to better manage their tax positions associated with their real estate loans.

### ■ INDUSTRY CONDITION AND OUTLOOK

Moody's has a broadly stable outlook for the ratings of REITs and Real Estate Operating Companies (REOCs), with negative trends in the office, multi-family and lodging sectors, which continue to experience operating pressures. Stresses seem to be bottoming, but they do not anticipate a substantive recovery for most property sectors until late 2004 or, in the case of the office sector, 2005. Their stable outlook reflects their view that REIT managements have maintained strong financial discipline, characterized by manageable debt levels, solid liquidity positions and a shift in priorities on "back to basics" management strategies during a tough market environment. Selective acquisitions, flexible capital spending programs, low interest rates and an increased focus on corporate governance, all of which enhance credit quality, have also helped to stabilize ratings in the sector.

Weakened real estate fundamentals have taken a toll on REITs, leaving many with little cushion at their current rating levels to absorb the effect of further revenue declines without substantially hurting their franchises, risk profiles and balance sheet fundamentals. Companies in the office and multifamily sectors remain vulnerable as weak fundamentals continue to stress many of these firms' operating results. Tenant demand remains fairly fragile, consequently, many firms had increased their level of rent concessions to retain and/or to lure tenants, though this, too, seems to have plateaued. Because of the lag between economic recovery and real estate demand, Moody's does not anticipate meaningful enhancement to most REITs cash flows and financial conditions until the economy fully recovers and the job market strengthens further.

Going forward, Moody's believes that a priority of the REIT and REOC sector will be renewing earnings growth. Many firms have been on the investment sidelines over the past few years; Moody's expects this to change. There is some concern that the sector could pursue riskier transactions or significantly alter its business strategies in pursuit of this more robust earnings growth. More ambitious earnings targets could fuel debt-financed acquisitions and joint-venture transactions, or increased levels of third-party management and international expansion, possibly creating tension between equity and bond investors.

Moody's does not anticipate widespread REIT rating upgrades once the economy fully recovers, and believe that REITs, on the whole, already have been given full credit

for their positive characteristics. In summary, REITs tend to have straightforward business platforms, and good transparency. Furthermore, REITs can sell core assets without seriously damaging the value of their remaining assets (up to a point) and benefit from bond covenants, which though a plus cannot prevent property firms from making bad business decisions. In Moody's view, REITs' endemic lack of balance sheet cash, limited ability to retain cash and other liquidity constraints crimp the sector's capacity for higher ratings. Thus, Moody's expects that the sector will remain preponderantly a low "Baa" sector.

### ■ CREDIT ANALYTICAL CONSIDERATIONS

#### (1) Real Estate Operating Entities

It is important to note that REITs are not fixed pools of assets. Assets can be added to the portfolio or sold off according to management's overall strategy. Excess cash flow from one property can be used to enhance the cash flow of other properties. By contrast, Commercial Mortgage Backed Securities (CMBS) pools are fixed and the manager/servicer only manages those specific properties, and, unless specific reserve funds are established, excess cash exits the entity. The management of REITs includes formulating and implementing an overall business, portfolio and financial strategy, as well as the day-to-day management of properties. As corporate entities, a REIT has "franchise value", in that the value of the REIT is often much more than the sum of the value of the assets, due to the value added by management and the REIT's public presence in the property and capital markets.

#### (2) Financial Flexibility:

In reviewing the financial condition of a REIT, the primary characteristic which distinguishes the credit analysis of a REIT from other traditional corporate entities is its high dividend payout ratio. Specifically, REITs in order to retain their REIT status are required to distribute at least 95% of their taxable income in the form of dividends (preferred and common). In most cases, they tend to pay out well in excess of the requirement, and deplete the cash cushion that results from depreciation and amortization. The high level of distribution, usually analyzed as a percentage of cash available for distribution (Dividends/FFO), is a response to equity investors' preference for high current dividends over dividend growth and price appreciation on their REIT holdings. The consequences of this low level of retained cash at the corporate level are multifold. Retained cash flow is low and cannot, therefore, be used to fuel the growth of a REIT. Consequently, the only remaining way to grow is constantly to raise capital, equity or debt. Similarly, the only way to repay debt, under normal conditions, is through refinancing. This is a critical point to

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## A Primer on Real Estate Investment Trusts (REITs) (Continued)

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understand and important in appreciating the significance of financial flexibility to REITs. Moody's defines financial flexibility as, "the ability of a company to raise capital, generate cash or repay debt in a non-disruptive way." The following are some of the factors in assessing a REITs financial flexibility:

(a) Leverage – For a typical REIT, leverage varies significantly over time as it grows its assets with debt and then, generally, refinances some of the debt through an equity offering. This financing cycle is vital to understanding REITs' credit risks. Looking at a snapshot picture of leverage does not reveal everything one can expect. It is more useful to understand the maximum likely leverage a REIT is going to assume.

(b) Secured Debt Outstandings / Unencumbered

Assets Test – The mix of secured and unsecured debt is important for two reasons. First, unsecured debtholders are junior to the secured holders and, in the case of liquidation, the pool of assets from which they will be repaid might be small if most assets are tied up in mortgages or other types of secured transactions. Second, the existence of a large pool of unencumbered assets adds to the financial flexibility of a REIT. Assuming that the equity and unsecured debt markets are closed for reasons not related to the company's overall health, it is still possible for the REIT to mortgage properties in order to repay debt coming due. As an unsecured debtholder, one should be cognizant of the ratio of unencumbered assets to unsecured debt. The larger the ratio, the more flexibility a given REIT generally has in repaying its unsecured debt at maturity. Finally, when looking at secured debt, the distinction between recourse and non-recourse debt should be made. The presence of non-recourse debt is less likely to jeopardize a stock of unencumbered assets in a given property portfolio.

(c) Debt Maturity Schedule – The bunching of debt maturities can present financing risks. Thus, the more debt maturities are distributed over time, the more flexibility the company will have.

(d) Interest Coverage – Measures can prove helpful in determining a REITs flexibility. However, one should be aware that a strong interest coverage today could change over time, particularly in an environment where interest rates continue to rise. This issue is all the more acute for REITs with a significant exposure to floating-

rate debt or with large amount of debt put in place during a low interest rate environment. Refinancing of very low interest rate debt in a much higher interest rate environment would have negative implications for REITs with such exposure.

(e) Indenture Covenants – Covenants have an important place in the analysis of the riskiness of debt issued by a REIT. Their objective is not to describe the company's strategy with regard to leverage or coverage, but should be seen as safeguards against a drastic change in a company's financial profile. Of most interest are the covenants that deal with the issues of total debt outstanding, secured debt outstanding, unencumbered assets to unsecured debt, and interest coverage. These covenants tend to be incurrence tests, i.e., the REIT may not incur additional debt if it would cause a breach of the covenant.

(f) Bank Lines of Credit – The primary use of bank lines by REITs is to finance new acquisitions until permanent financing is in place. Also, bank lines can provide financial flexibility to the extent they are large enough to take out maturing debt. However, many lines restrict the use of the proceeds to real estate acquisition and cannot, therefore, be considered as sources of alternative liquidity. Also of concern to the rating agencies are credit agreements that call for accelerated repayment of the line, or a change from unsecured to secured, in case of a material adverse change (MAC) or other event. Bank lines are best seen as temporary liquidity sources and the rating agencies become concerned about those REITs that depend on bank lines for funding - especially REITs that rely on short term debt to fund long-term assets.

(3) Comparability:

One of the constant credit analytical challenges faced by SVO staff is one of finding adequate comparables when attempting to determine an appropriate Designation. To this end, the writer has found that Moody's provides considerable comparable information for the REIT industry. Organized by asset type, Moody's provides peer group statistics across key rating criteria, primarily reflecting the above commonly used ratios. Furthermore, for each of the above key ratios, Moody's provides for each asset type (e.g., "Industrial"), a listing of the companies in the asset type category, their rating, and the associated ratio

*(Continued on page 19)*

## A Primer on Real Estate Investment Trusts (REITs) (Continued)

for each of the past three years. Furthermore, an average and median are provided for each sector for each particular ratio. In summary, this sector has some of the best comparable information the writer has seen.

### ■ REGULATORY / STATUTORY CONSIDERATIONS

During the discussion of real estate-related securities by the Valuation of Securities Task Force (VOS/TF), from October 1994 through September 1995, the Credit Tenant Loan (CTL) language in the *Purposes and Procedures Manual* (the “P&P”) was the only language that provided Schedule D treatment for any commercial real estate-related securities. To the extent the VOS/TF had earlier (June 1994) imposed a moratorium on CTLs, this action was interpreted by SVO staff as the removal of its authority to assign NAIC Designations to any commercial real estate-related securities. Of greater significance was the fact that the moratorium imposed in June 1994 confirmed that Schedule D eligibility for commercial real estate-related securities had not been considered by the regulators. The discussion then focused on securities issued by REITs and commercial mortgage-backed securities (“CMBS”).

One consideration in determining whether or not these two

security categories should be eligible for Schedule D treatment, was, to what extent the Financial Accounting Standard Board’s definition of “security” (rule 115) could be used for the purposes of Schedule D asset classification. SVO staff commented that although the logic of such a criterion maybe attractive, such a definition was very broad. Finally, it was pointed out to the regulators that at some point the SVO needed to draw a line, so to speak, whereby, those items on one side of the line are some assets eligible for Schedule D treatment and on the other side of the line are assets that belong on another statutory Schedule. With respect to securities issued by REITs, everyone acknowledged that such securities were more akin to traditional corporate obligations and that putting them anywhere other than Schedule D did not make much sense.

After considerable deliberation, it was finally decided that given its’ security nature, CMBS should also reside on Schedule D. Recognizing staff constraints at the SVO during this period, the regulators ultimately decided that debt and preferred stock of REITs as well as CMBS, would be eligible for Schedule D treatment if it was rated by a

(Continued on page 20)

### Commonly Used Ratios and Their Definitions

1. Recurring EBITDA / Fixed Charges (X)	Recurring EBITDA divided by Interest Expense and Preferred Dividends. <u>Note</u> : “Recurring EBITDA” is defined as Earnings (adjusted for non-recurring items) before interest, taxes, depreciation and amortization.
2. Total Debt / Recurring EBITDA (X)	<u>Note</u> : “Total Debt” is defined as borrowings, repurchase agreements, notes, bonds, debentures, bank deposits, ESOP liabilities and capital lease obligations.
3. Total Debt / Gross Assets (%)	<u>Note</u> : “Gross Assets” is defined as assets <u>and</u> accumulated depreciation.
4. Total Debt + Preferred Equity / Gross Assets	
5. G&A Expenses / Total Revenues (%)	Overhead expenses related to operating a REIT as a percentage of all revenue including nonrecurring items, net of interest expense for Mortgage REITs.
6. Variable Debt / Total Debt (%)	Variable-rate Debt as a percentage of Total Debt.
7. Amounts Drawn / Credit Line Available (%)	Amount of funds drawn as a percentage of total credit originally available.
8. Secured Debt / Gross Assets (%)	Total secured debt outstanding as a percentage of Gross Assets.
9. Recurring EBITDA / Total Revenues (%)	
10. FFO Multiple (X)	Price per share divided by FFO per share. <u>Note</u> : FFO is Funds From Operations as reported by the REIT in accordance with NAREIT’s definition. NAREIT defines FFO as Net Income (computed in accordance with GAAP) excluding gains (or losses) from sales of property + Depreciation and Amortization.
Dividend Payout (%)	Dividends per share divided by FFO per share.

# A Primer on Real Estate Investment Trusts (REITs) (Continued)

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rating agency and that rating was monitored by the agency. On 9/11/02, the VOS/TF adopted new P&P language permitting the SVO to designate non-rated REIT debt and preferred stock, effective 12/31/02.

# Chronological List of *SVO Research Reports*

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## SVO RESEARCH NEWSLETTERS

### Volume 1, Issue 1

- Provisional Exemptions Rules are Live
- Corporate Bond Defaults at Record High
- 1999 Holdings of 5\* and 6\* Securities as Reported
- Education and Training Programs Available for Insurance Regulators

### Volume 1, Issue 2

- Insurer Investment in Problem California Utility Bonds
- Credit Derivatives
- When Prizes and Settlements Become Securities
- SVO Activity

### Volume 1, Issue 3

- Preferred Creditor Status of Multilateral Development Banks
- Changes in the VOS Database 1999 –2000
- Debt-Equity Guidelines and the “Classification of Securities” Function of the SVO
- SVO Activity

### Volume 1, Issue 4

- Credit-Linked Notes
- Insurer Investment in Foreign Sovereign Securities
- Changes in the VOS Database from Year-End 2000 to Q1 2001.
- SVO Activity

### Volume 1, Issue 5

- Insurer Investment in Provisionally Exempt Bonds
- Convertible Bonds in Demand
- Insurer Investment in Catastrophe Bonds in 2000
- SVO Activity

### Volume 1, Issue 6

- Corporate Bond Defaults: Mid-Year Update
- Introduction to Equity-Linked Notes
- What’s an Industry” The North American Industry Classification System

### Volume 1, Issue 7

- Argentina, the IMF, and Currency Boards
- Insurer Investment in Foreign Sovereign Securities: Canada
- Changes in the VOS Database: 3rd Quarter 2001
- SVO Activity
- SVO Lost Office on September 11th But Did Not Destroy Operations

### Volume 1, Issue 8

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

### Volume 2, Issue 1

- The One-Year Anniversary of Provisional Exemption
- The Telecommunications Equipment Industry: Review & Outlook, January 2002
- Kmart and Global Crossing

### Volume 2, Issue 2

- Corporate Bond Defaults: First-Quarter Update
- Insurer Investment in Structured Securities
- Monoclonal Antibodies, Anyone? The Medical Biotechnology Industry

### Volume 2, Issue 3

- Chapter 11 for Nations?
- Synthetic Leases
- Insurance Industry Exposure to Tyco International Ltd.

### Volume 2, Issue 4

- Portfolio Composition of Insurance Companies
- Not-for-Profit Organizations: A Review
- Insurers Investment in European Sovereign Debt

### Volume 3, Issue 1

- Update: Insurer Investment in Catastrophe Bonds
- Semiconductor Industry: Review and Outlook
- Default and Market Data Watch
- Recent Rating Agency Actions for Insurance Companies

### Volume 3, Issue 2

- CDO/CBO/CLO 2002 Performance Review
- Credit Tenant Loans
- Global Corner: Brazil Bounces Back as Investor Confidence Returns
- Default and Market Data Watch
- Recent Rating Agency Actions for Insurance Companies

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## SVO RESEARCH SPECIAL UPDATES

### Special Update #1

- NTL, Inc.

### Special Update #2

- NTL, Inc., Metromedia International Group Inc., and KirchMedia

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## Special Update #3

- Adelphia Communications Corporation

## Special Update #4

- Insurers' Exposure to WorldCom, Inc.

## Special Update #5

- Insurers' Exposure to Qwest Communications International Inc.

## Special Update #6

- Update on National Century Bankruptcy

## Special Update #7

- Insurers' Exposure to UAL Corporation
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## **SVO STATENET (REGULATOR ONLY) RESEARCH NOTES**

### Research Note 04-01

- 2003 AVR Stress Testing

### Research Note 04-02

- 2003 Bond Credit Defaults

### Research Note 04-03

- Catastrophe (CAT) Bond Market Developments
- 

## **SVO RESEARCH SPECIAL REPORTS**

- Mortgage Backed Securities

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