

Stable Times

Newsletter of the Stable Value Investment Association

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SVIA 1997 National Forum Explores Stable Value Industry and Issues



"Luncheon of the Boating Party" by Auguste Renoin one of the fine works of art on display during the SVIA Gala Reception at the Phillips Gallery during the 1997 National Forum.

How Appropriate Are Broad Investment Guidelines In Stable Value Funds?

by Victoria M. Paradis, CFA
Pacific Investment Management Company

High yield bonds. Options and Futures. Hedged foreign government securities. These investments are common within traditional fixed income pension portfolios. But how appropriate are these sectors as stable value fund investments? Some believe these sectors are inappropriate because stable value funds are typically the most conservative option offered to DC plan participants. The purpose of this article is to present the case that broad investment guidelines are not inconsistent with a conservative fund.

Specifically, the "non-core" fixed income sectors that are most suitable for stable value funds include the higher tiers of high yield bonds (B or higher), unleveraged options and futures contracts, and currency-hedged foreign sovereign debt. Leverage, bottom-tier corporate credits, currency risk and highly illiquid securities arguably

remain inappropriate investments for these funds.

Reduced Risk with Improved Returns

The argument for broad investment guidelines hinges upon two important points:

- Diversification offers risk reduction opportunities.
- More sectors offer the potential for improved returns.

The stable value market certainly embraces the concept of diversification as a risk-reduction tool. The market has faithfully adopted alternative products since multiple AAA GIC issuers became unavailable. However, effective diversification involves more than spreading out credit risks. To be most powerful, diversification means assuming multiple new risks as a way of

(Continued on Page II)

Overview

The 1997 Stable Value Investment Association National Forum was held October 14-16, and its theme, Painting the Right Picture: Positioning Stable Value in the *Investment Landscape, was successfully* interwoven throughout the event. The Forum covered previously uncharted territory and presented new insights to attendees, who described this year's event as "interesting," "insightful." and "wellorganized" Among the most popular sessions at the two-day conference were those on new research findings from Public Agenda, the area of economics called behavioral finance, and Washington insights from speaker David Gergen. These sessions all helped relate stable value investments and the industry to the larger issues surrounding it.

In addition to gaining insights on investor psychology, the audience benefitted from the presentations of a variety of non-

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A Message from the President

The Stable Value Times, now in its second quarter of official publication, continues to reflect the highest level of commitment to the exchange of important industry information among members of SVIA. All of the contributors, both past and current, as well as the editorial team, should take pride in a job well done. With the productivity and telecommunications tools of the "digital age," these volunteers have been able to solicit, e-mail back and forth, edit, review, layout and publish, all in a remarkably efficient manner. Three years ago, pre-Internet, this process would have been extremely slow and cumbersome, and fraught with potential logistical problems. SVIA has definitely stepped forward into the electronic age!

Meanwhile, the Association continues to step forward in other areas as well, both improving existing programs and services as well as innovating new ways to promote the



industry and its members. Here are just a few examples:

- The 1997 National Forum was a huge success this year, primarliy due to the diligent planning efforts and creative ideas of the Forum Committee and the speeches delivered by the presenters. Over 235 attendees enjoyed thought-provoking sessions and topics, including behavioral finance, recent retirement issue research, and Washington insider news. (See detailed Conference article on page 1.)
- The first industry-wide portfolio composition survey was completed and posted in on the SVIA websitel in late November. This research provides valuable information for and about our industry and help to define the issues for the Association going forward. (See detailed article, page 19.)
- The Model Disclosure Criteria and Stable Value Glossary projects ate well underway and progressing steadily toward completion. These projects will provide standards for communicating about stable value, both inside and outside the industry.
- The newly created SVIA Website is on-line and continues to be expanded and updated. A new Questions & Answers (Q&A) section as well as completed text of the portfolio composition survey are just a few of the recent additions to the site. Check it out at www.stablevalue.com and let us know your thoughts. Ours is a dynamic, interactive website that we will update frequently.

As the holiday season fades into the background and we launch ourselves into the new year, I would like to once again thank all the member/volunteers whose hard work made 1997 such a fruitful year for the stable value industry. As we continue to expand the horizons for stable value investments and address new challenges, we will continue to benefit as an industry from the strength and knowledge of our members. As you receive your renewal notices in January, I urge each of you to think of your firm's membership in SVIA as an investment in your future: This investment is created by virtue not only of your dollars, but of your time. Make it a point to think of ways you can contribute as you think of your goals for 1998. And have a Happy New Year!

Editor's Comer

by Donna Sheehan, BT Alex.Brown Inc.

When we first began this initiative, Allan Fen and I wondered whether we were going to be able to produce a series of newsletters that would offer high quality articles that challenge the stable value readership. The first two editions would indicate that indeed we have a great deal to say about stable value! Heartfelt thanks go out to the contributing editors and the selfless authors who volunteered their time, effort and intellect in putting this edition together. And a special thanks to Lisa Cole at SVIA for making an editor's life more enjoyable by assuming production responsibility — it is to her that we owe this new format!

This edition has a kind of circular pattern to the content of its articles. Loosely, we start out by examining big picture issues such as strategic asset allocation and investment guidelines, then move into an examination of investment opportunities, and conclude with analysis that, when considered or when made available, may impact once again one's decision about strategic asset allocation and investment guidelines! As you read the articles, see if you detect the pattern!

Vicky Paradis took time out of her maternity leave and new role as a mother to address the theme so popular in advertising today of "wider is better" and offers her insights to that question within an active management, synthetic contract context. Dan Libby and Steve **Homer** explore questions related to strategic asset allocation with Dan offering his approach to determining one and Steve analyzing what one needs to consider once having arrived at that state. Recently, an unfavorable and rather factually incomplete article was written about stable value pooled funds. In this issue, we offer a rebuttal in the form of objective facts and figures as provided by the collaborative efforts of Karl Tourville, Jim McKay and Rob Galusza, and led by our pooled fund expert Janet Jasin Quarberg. Shivan Govindan and David LeRoux continue pushing the investment frontier by

encouraging us to consider the merits of

some atypical investments in stable value

and inflation indexed bonds, respectively.

fund portfolios such as structured bonds

Insights on issues of more general interest are offered by Lazarus Sun, Judy Markland, and Wayne Gates. Lazarus, in Part I of a two-part series, reacquaints us with the tenets of QPAM and offers sage advice in transacting with EFUSA plans; in Part II he will address some of the finer nuances of which we should all be aware. Judy examines the data gathered from the SVIA 1996 Investment Policy Survey and, in the first of a series of articles, provides some insights on changes observed in the duration of stable value funds and offers some possible explanations for the shifts. And Wayne, with his fellow colleagues on the Data and Research Committee, seeks to fill a hole in the data currently available to plan sponsors, managers, and the investment community at large, namely, a historical rate of return series representing stable value investment funds.

Andra Marx has offered to contribute her services by perusing popular publications for articles on stable value investing that may help in communicating its merits to plan participants. Her column will become a regular feature, so plan on looking here for sources.

And finally, **Lisa Cole** has furnished us with an excellent summary of the highlights of the SVIA Conference held in October in Washington, DC. Attendance was excellent, so this article may be just what you need to show the boss what you did in DC this year!

We encourage you to send in your own comments and insights on comments made or on other stable value topics. Feel free to submit articles, letters, rebuttals, etc., but do so by February 1.1998 as our next edition will be out in March 1998.

HAPPY HOLIDAYS FROM THE EDITORIAL STAFF OF STABLE TIMES!

After the Strategic Asset Allocation Decision:

Making the Next Placement

by Steve Homer, CFA, Putnam Investments

Investment managers for a company's defined contribution plan's stable value funds are responsible for ensuring that the optimal blend of traditional and synthetic investments is achieved based on the unique aspects of that company's participant base and plan characteristics. As new contributions are made, the manager reallocates the portfolio in order to get maintain or move closer to the desired strategic blend. But what if one has already achieved "optimal" positioning for the plan? When new contributions are made, to which market sector (traditional or synthetic) should one allocate these additional assets? What are the factors that should be considered when contemplating these questions? The answer to these question is found in the most fundamental of portfolio management concepts, each of which is discussed below.

Portfolio Structure

As most funds use a traditional structured maturity GIC ladder to manage their liquidity, this must be addressed first as new contributions become available for investment. Is the ladder still appropriately balanced? Have the fund's cashflows and therefore liquidity needs changed? It is imperative that this analysis be conducted habitually, as the liquidity needs of stable value funds can, and often does, change dramatically in a short period of time. The stable value

portfolio needs the flexibility to accommodate these changes.

Diversification

Another important aspect in the decisionmaking process is the overall diversification of the portfolio. Not only should the analysis examine the allocation between traditional investments and synthetics, but more importantly, the diversification of investments within each sector. What securities or issuers should be avoided due to ample existing exposure? Are there any new products that need to be evaluated? What is the readily available set of different, competitive instruments? How much is known about the sensitivities of these instruments and are they appropriate for the fund? As we have learned from past experience, being invested in a defaulted issue can be harmful to any stable value portfolio. Prudent diversification of investments can protect the portfolio from some of this risk.

Relative Value

Important in analyzing any investment is determining its relative value versus available alternatives. Where are current GIC rates today and are rates projected to increase or decrease? How much 'alpha' are various synthetic products (both buyand-hold and actively managed) offering over traditional issues? What is the credit outlook for the insurance company products being considered? What additional risks are involved with selecting an actively managed alternative? The answers to all of these questions will enable the manager to formulate an educated opinion on the relative value of any number of alternative **products.** Additionally, relative value **versus** historical averages can provide a useful starting point when evaluating numerous instruments.

As we can see, managing a stable value portfolio is truly a dynamic endeavor. With new product developments, changing market conditions, and evolving participant needs, the nature of the plan's stable value investments must continually be evaluated to ensure that they always reflect the current objectives of the plan. The process must be a dynamic one: A portfolio structure that is optimal upon leaving the office today may not be so when entering the office tomorrow.

COMING IN JANUARY RENEWAL NOTICES!

You will receive your **SVIA** membership renewal notice in January, so look for it in the mail around that time. Any questions, please do not hesitate to call.

Inflation Indexed Products for Stable Value Funds

by Dave LeRoux, Jackson National Life Insurance Company

In the last issue of *Stable Times*, the first part of this article analyzed the suitability of inflation indexed products for stable value funds. The conclusions were that the real returns offered by inflation indexed products look attractive relative to the historical returns of nominal rate assets, and that the benefits of diversification and rate responsiveness argue strongly for an allocation to this new asset class. This second part deals with some practical issues in obtaining this exposure.

Inflation Indexed Product Choices

Once a decision is made to allocate a portion of the stable value fund to inflation indexed products, the next question is which vehicle to use. At a high level, the choices are similar to those for nominal rate products: 1) buy a bundled product backed by the credit of an insurance company or other financial institution (i.e., an inflation indexed GIC); 2) create the **product** synthetically by buying inflation indexed bonds and a benefit responsive wrap; or 3) buy inflation indexed bonds without a wrap and hold them at market. In my opinion, the last option is not a good choice for the same reason as with **nominal** bonds, i.e., because the market value volatility can be greatly reduced for the small price of a benefit responsive wrap.

The choice between a bundled insurance company product and a synthetic product has all the same considerations as with nominal products, plus some new ones. The primary arguments in favor of a bundled approach are: flexibility in tailoring the product to a plan's particular needs, provision of a credit spread in the real rate, current lack of inflation indexed bond issues, and automatic inclusion of benefit responsiveness. On the other hand, the synthetic approach offers potential for better credit diversification, greater flexibility in adjusting exposure to the inflation indexed sector, and the ability to add value through active management within the inflation indexed sector. Of course, these choices are not

mutually exclusive. The current lack of inflation indexed product may argue in favor of using a combination approach.

Actively Managed Synthetic Considerations

The decision to add inflation indexed securities using an active bond manager involves a number of considerations not present with a bundled product or a buy-and-hold synthetic. Since PIMCO has been a leader in the use of inflation indexed securities, I posed a number of questions in this area to John Brynjolfsson and Vicky Paradis.

Should inflation indexed securities (IIS) be managed as a sepamte portfolio, or simply allowed to be added to a nominal bond portfolio?

Brynjolfsson: Both. We certainly believe managers should be allowed to use IIS tactically (added to nominal portfolios) within stable value, bond, and other mandates if they have expertise; and virtually all our clients agree. Tactical allocation of IIS becomes an "arrow in the manager's quiver." But in addition to tactical allocations implemented by managers, IIS can often be used as a dedicated allocation within an asset allocation process, 401 k plan or stable value portfolio, to address structural needs. In particular, IIS provide structural "inflation-protection." Such structural needs cannot, in general, be addressed through tactical use alone, and call for dedicated allocations.

Paradis: Specialized portfolios can play a role for plans that want to make their stable value fund more responsive to inflation rates. The most intriguing application is for funds that want a significant allocation to wrapped, total return evergreen bond portfolios. A large total return allocation creates a longer duration fund, which creates the risk of a lagging blended interest rate if market rates rise significantly. A specialized inflation indexed portfolio can help counter the rate lag impact of a longer duration by allowing the blended rate to better track rising rates (if they come from increasing inflation).

What strategies are used to add value through active management of inflation indexed securities? Are there enough securities to add value by trading within

inflation indexed securities, or is the primary decision one of underweighting and overweighting inflation indexed bonds relative to nominal bonds?

Brynjolfsson: Some value can be added within the Government/Agency arena alone, mainly through managing inflation and duration exposure. At **PIMCO**, we try to make use of a broader universe of tools, including strategies involving **inflation**-indexed **corporates** foreign bonds (generally hedged) and futures (backed by cash to avoid leverage).

What special considerations are involved in designing a benchmark for a portfolio which includes inflation indexed securities?

Brynjolfsson: An interesting approach to satisfying a client's need for structural inflation-protection is to create a custom hybrid benchmark. It is very straightforward to simply blend the inflation-linked benchmark with a traditional benchmark in fixed weights of the client's choosing. The account's performance as a whole (that is change in market value) can then be compared to the hybrid index performance, as a whole. Alternately, the two asset classes (conventional bonds and inflation-indexed bonds) can be managed and monitored completely separately.

Setting Duration Constraints

When dealing with nominal instruments. duration is a useful tool in measuring the price sensitivity with respect to changes in nominal interest rates. With inflation indexed products, duration usually refers to the sensitivity of the price to changes in *real* interest rates. Real interest rates tend to be much more stable over time than nominal interest rates, so inflation indexed products will have significantly less price volatility than nominal bonds of the same duration.

To **illustrate** this point, consider the table below which shows the two inflation indexed bonds issued by the US Treasury (one **10-year** bond and one **5-year** bond) compared to nominal Treasury bonds. This payout table compares the daily price volatility of each of the inflation indexed bonds with the next-issued nominal bond with the same maturity. Notice that even though the durations of the inflation indexed bonds are somewhat longer, the actual price volatility is less than one-half that of the

	U.S. Treasury Bond Comparison				
	5 Ye	ar	10 Year		
		Inflation		Inflation	
	Nominal	<u>Indexed</u>	Nominal	<u>Indexed</u>	
Duration ¹	4.0	4.2	6.9	7.7	
Price Volatili	ty² 0.23%	0.10%	0.37%	0.17%	
Correlation ³		20%		64%	

- 1 Modiiad duration for nominal bonds and real duration for inflation indexed bonds
- 2 Standard deviation of daily percentage price changes through 10/22/97
- 3 Correlation coafficiant of nominal and inflation indexed daily percentage price changes

nominal bond. Furthermore, the price volatility has not been highly **correlated** with changes in nominal interest rates.

Based on these considerations, a plan should have greater tolerance for real duration of inflation indexed products than it does for nominal duration. Other factors to consider in selecting a real duration target include real rate differences for different maturities (i.e., the real term structure) and views about future inflation prospects. To date the real rates offered for the 5- and 10-year inflation indexed Treasuries have been quite close to each other, indicating a flat real term structure The real rates offered by products with a credit component are generally more upward-sloping.

Selecting **Payout Patterns**

Inflation indexed Treasuries pay coupons of the real rate and accrue the inflation component by increasing the principal. This payout pattern. called the "Canadian" structure, is also used by some corporate and agency issues. Other issues use a "current pay" structure, under which both the real return and the inflation return are paid in semi-annually coupons, leaving the principal amount constant. Inflation indexed GICs are available with either of these payout patterns, or any other pattern a plan may choose (e.g., a compound, or zero-coupon, structure which pays everything at maturity). An actively managed portfolio of inflation indexed securities also allows for flexibility in design of the payout pattern. Regardless of the payout pattern selected, the participant accounts should be credited with both the real and inflation returns.

Considerations which affect the choice of a payout pattern include: the liquidity needs of the stable value fund, the desired future allocation levels to the inflation indexed sector, the real duration target, and relative value comparisons among instruments with different payout patterns.

Crediting Rate Formula

There are several product design possibilities with an inflation indexed GIC, and it is too early to say whether one approach will become dominant. One possibility is to define the crediting rate for each period as a fixed teal rate plus a recent past measure of inflation. For example, the contract could credit a teal rate of 3.50% plus the annualized rate of inflation based on the last six months of published CPI data. All benefit responsive withdrawals and maturities would be paid at book value, and no adjustment would be made if inflation during the period turns out different than the past inflation assumed in the crediting rate. This approach has the advantage of simplicity and a crediting rate which is known prior to each reset period. It has the disadvantage of high volatility in the crediting rate due to fluctuations in the CPI, which may be a problem if a significant portion of the stable value fund is based on this formula.

To **overcome** the rate volatility problem, a "smoothed' crediting rate technique may be used. A wide variety of smoothing formulas are possible, but they generally will look similar to the renewal rate formulas with synthetic **GICs**! The renewal rate will be determined periodically to be equal to the real rate plus an estimate for inflation, and the result will be adjusted to amortize any

gains or losses from past inaccuracies of the inflation estimate. Because the inflation estimation errors will be corrected in the renewal rate calculation, a more stable, long-term estimate may be used for the inflation rate, resulting in a more stable crediting rate. As with the prior structure. insurance companies should be willing to offer this on a nonexperience rated basis with respect to benefit responsive withdrawals.

The benefit **responsive** wraps for synthetic products will likely use a "smoothed" crediting rate approach described above. For a buy-and-hold synthetic, the gains/ losses may be **amortized** over the remaining real duration of the assets to ensure convergence of book and market values. For an actively managed synthetic, the smoothing period is somewhat arbitrary prior to the termination phase. If the inflation indexed securities are held as part of a largely nominal bond portfolio which is benchmarked against a nominal bond index, the duration of the benchmark index is probably a suitable **amortization** period.

An important consideration for both issuers and purchasers of benefit responsive inflation indexed products is that the risk of benefit responsive withdrawals should be significantly lower than with nominal rate products. Issuers charge for benefit responsive risk because they believe that participants will find other investment alternatives more attractive if interest rates move up to a point where a plan's blended rate lags prevailing market rates. If this were to occur, issuers would suffer losses on nominal rate products (traditional GICs and synthetic wraps). However, if there is a low correlation between nominal rates and real rates, issuers might be almost as likely to find themselves in a gain position in this scenario with inflation indexed GICs and wraps. The result should be greater willingness of issuers to assume the benefit responsive risk and to do so on a nonexperience rated basis. On the other hand, plan sponsors should also be more willing to self-insure this risk via experience rating.

Conclusion

Theoretical asset allocation arguments strongly suggest including inflation indexed products within a stable value fund. There are no serious practical problems in doing this. The largest obstacles seem to be in getting decision-makers comfortable with this new asset class.

Strategic Asset Allocation

for a Stable Value Asset Class

by K. Daniel Libby, IBM Retirement Fund

Strategic asset allocation is the efficient deployment of assets against a well-defined policy objective. This policy objective typically is not simply total return maximization alone. Various policy objectives include accounting, financial ratio and cashflow considerations and on occasion social issues as well. What characterizes a strategic allocation is its long-term nature. As such their merits cannot be readily judged against cyclical performance.

Strategic Asset Allocation: Objectives

Any discussion of strategic asset allocation for a fund should begin with a review of the fund's objective. Stable value funds have objectives best categorized as follows:

- Principal Preservation / Stable Return (Risk Objective)
- Competitive Rate of Return (Return Objective)

The unique aspect of stable value funds is their principal preservation objective in the face of participant responsibility for asset allocation. The perspective of this article is to redefine the risk objective as a constraint (or policy) of providing sufficient liquidity. This affords significant assurances to the providers of benefit responsive insurance to the plan. But more importantly, it is in the longer term interests of the participants since all stable value funds contain some amount of withdraw risk-sharing among the participants, either explicitly or through higher risk charges. Given sufficient liquidity, the remainder of the fund can be deployed optimally.

Strategic Asset Allocation: Two Alternative Structures

There are two basic means available to a stable value manager to meet liquidity needs. The traditional mechanism is to employ a STIF balance. The mechanism utilized by stable value funds is to invest in a passive maturity ladder of typically 3 to 5 years.

Let us consider the maturity ladder first. As table #1 shows, a manager can calibrate how much liquidity he will have in any given year by structuring the proportion of the fund invested in a maturing ladder.

need only witness that although longer GICs may have exhibited superior risk/return properties, few stable value managers hold GIC portfolios with durations longer than 2.5 years.

Table #1USING A MATURITY LADDER FOR LIQUIDITY
Assuming a 5-Year Maturity LadderLadder Allocation100%75%50%25%Liquidity per Year20%15%10%5%

One benefit of this approach to liquidity management is that it is a passive investment strategy. There is no expectation that a manager will be able to create excess return by actively managing the liquidity in the fund against the liquidity needs of the participants.

But, of course, strategically targeting a specific allocation to STIF is also a passive strategy. In addition, active management may be a viable source of alpha within a Yet, many studies confirm that, in the absence of liquidity needs, the five-year part of the curve represents an inflection point that best compensates fixed income investors for the risk borne. Not surprisingly, most **fixed** income asset classes target indices such as the Lehman Aggregate or Solomon Broad Index that have such a duration.

Therefore, **all** else being equal, should we structure a stable value asset class in a

Table #2	USING A STIF BALANCE FOR LIQUIDITY Allocation Between Lehman Aggregate and STIF				
Allocation Ratio (%) Liquidity Duration	50/50	60/40	80/20	90/10	95/5
	50%	40%	20%	10%	5%
	2.6 yrs	2.9 yrs	3.7 yrs	4.2 yrs	4.4 yrs

STIF fund. This is not possible with a passive ladder of maturing assets.

Perhaps most serious of all, a passive maturing portfolio of assets is limited in the duration that could be achieved. Generally speaking, passive asset management for assets much longer than 2-3 years in duration exhibit too great a potential for significant "tracking **error**" to be practical. This is true for **GICs** as well, even though stable value funds have not adopted market value based risk and return measures. One

similar fashion? Utilizing as much of a Lehman Aggregate mandate as possible after allowing for liquidity needs either through a STIF target or a maturity ladder would appear to make sense. Table #2 above shows the appropriate statistics for various allocations between the Lehman Aggregate and a STIF asset class. Table #3 shows similar information for a strategic allocation to the Lehman Aggregate and a maturing ladder of assets.

For purposes of these charts, we assume the

Table #3 USING A MATURITY LADDER FOR LIQUIDITY Allocation Between Lehman Aggregate and a 5-Year Ladder

Allocation Ratio(%)	30 / 70	40 / 60	50 / 50	60 / 40	70/30
Liquidity	14%	12%	10%	8%	6%
Duration	2.6 yrs	2.9 yrs	3.7 yrs	4.2 yrs	4.4 yrs

TABLE #4

HISTORICAL CASHFLOW ACTIVITY

% of Stable Value Fund Assets

1 ear	Transfers	+ Contributio	ons + Disdurse	ements + incon	ie = runa Growth
1991	-4.2	13.6	-5.9	8.8	12.2
1992	-4.0	10.0	-4.3	8.0	9.7
1993	-6.6	7.1	-3.6	7.3	4.3
1994	+3.2	5.5	-6.6	6.8	8.8
1995	-6.4	6.7	-6.9	6.5	-0.1
1996	-6.9	5.7	-4.8	6.6	0.6
1997*	-4.1	5.0	-4.1	4.3	1.0

^{*} Through 8/31/97

duration of the **Lehman** Aggregate is 4.8 years, the duration of a five-year ladder is 2.5 years and the duration of a **STIF** pool is 0.25 years.

Notice that the 50/50 allocation between the Lehman Aggregate and a 5-year maturity ladder falls somewhere between a 80/20 and a 90/10 allocation using a STIF balance. Matching up the liquidity between these two alternative allocations results in a significantly shorter duration in the allocation using a ladder of assets. Matching up the duration results in a much smaller buffer of liquidity in the allocation using a ladder of assets. By either measure of risk, utilization of **STIF** allows for a greater allocation to Lehman Aggregate-style mandates. Howeever, to make a valid comparison, we will match-up these two alternatives along each dimension and compare historical returns. Fit we must determine an appropriate liquidity level for the fund.

Targeting an Appropriate Liquidity Level

An appropriate liquidity level is specific to a plan's structure and population, but it can be easily determined. By looking at the historical needs of a plan for liquidity it is possible to make a reasonable assumption. Table #4 shows the **cashflow** activity for a large stable value fund.

The **cashflow** history for this fund appears to have been typical for many in this industry. Review of the different components allows us to gain possible insight into the fund's liquidity requirements. Each component is a function of a different dynamic and should be considered individually.

1. Transfer activity has been consistently negative throughout the 1990s. as partici-

pants have become more **aware** of the equity markets.

- 2 **Disbursements** to **retirees** have ranged by only 3% from high to low.
- 3. **Income** earned has fallen as the fixed income markets have continued their long bull market.
- 4. **Contributions**, however, present the most dramatic movement in these statistics. Specifically, the fall in contributions over this decade appears to have had the greatest impact on fund growth. But this has not been due only to a greater allocation of new contributions going into equity investment choices. To a large degree, it is also due to the natural maturation of this asset class. As the table will attest, this stable value fund has grown by almost 42% over this time period. Contributions are one component of this growth that will not increase in dollar volume as a function of the size of the fund. In fact, for a given population, contributions as a percentage will diminish as the size of the overall fund grows, assuming salary

increases do not keep pace with the credited rate.

So what can we say about the "strategic" liquidity needs of this fund? With the historic returns in the equity markets during the past three years, transfer activity hovers near a recent maximum of about 7% per annum. If new contributions were to continue to fall as the fund grows and transfer activity were to increase 50% over recent levels, the liquidity requirements for this fund would not quite reach 10% per year. Therefore a liquidity expectation of 10% appears to be a reasonable starting point to begin a comparison for our strategic asset allocation.

Strategic Asset Allocation using Proxy Indices

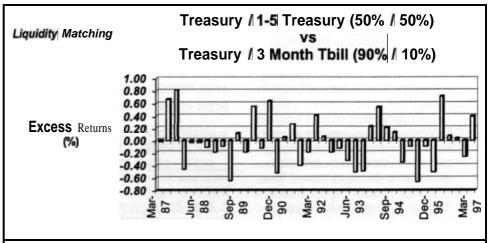
With this as background, we are now prepared to investigate whether use of a **STIF** fund or a maturity ladder best meets a fund's liquidity needs. In the following comparisons, the alternative asset allocations will use proxies for the various asset choices. To remove the effects of spread products and to focus on the effects of duration, we'll look only at all Treasury based indices to reflect these asset classes. For example, the Lehman Treasury Index will be the proxy for **Lehman** Aggregate evergreen-style management, the Lehman 1-1 5 year Treasury Index for a **5-year** maturity ladder and the Lehman 3-month T-bill Index for STIF.

Comparing The **Two** Alternative **Strategic Allocations**

The first analysis is to **compare** the two alternative strategic allocations on **a**

(Continued on Page 17)

Graph #1



Stable Value Pooled Funds

Dispelling the Myths

By: Janet Jasin Quarberg, Hueler Companies

Contributors! Karl Tourville, Galliard Capital Management, Rob Galusza, fidelity Investments. and Jim McKay, American Express Trust Company

For many plans today, pooled funds are the stable value investment vehicle of choice, evidenced by the fact that an estimated 40% of the nation's defined contribution plans use stable value pooled funds. Since their inception in the early eighties, pooled funds have experienced significant growth and at the same time have endured intense scrutiny by investors, consultants, and contract underwriters. Over the years several common misconceptions or myths about pooled fund risk/return profiles have developed. Unfortunately, these myths have arisen due to limited analysis not based on comprehensive industry data. This article will address some of the most common myths and provide the facts about pooled funds.

Myth: The return differential between stable value pooled funds and money market funds has narrowed over the years. Consequently, there is not enough yield advantage to warrant their use.

FACT: Net of fees, pooled funds have provided more than 180 basis points of added annualized return over money market funds over the last three years and 170 basis points over the past 5 years according to data collected by Hueler Analytics. This differential becomes significant over a ten-year period where the cumulative yield advantage translates into over 30%.

Myth: Higher pooled fund fees are partially responsible for the nanvwing spread between money markets and pooled funds.

FACTI While the performance advantage between pooled funds and money markets has narrowed in recent years, this has not been due to increased fees. In fact, Hueler data shows that fees have been declining. Over the last 5 years, stated fee schedules have decreased an

Exhibit #I

Alfi data asi of 6/30/97	1 Year Return Annualized	3 Year Return Annualized	5 Year Return Annualized	10 Year Ret urn Annualized
Hueler Analytics Pooled Fund Index*	6.07%	6.11%	6.11%	7.15
IBC/ Money Fund Average* .	4.06%	4.24%	4.41%	5.39
Hueler Index Spread Over Money Funds	1.21%	1.67%	1.70%	1.76

- Measures the median performance of 28 funds with almost \$30 billion in oec10 representing

 pproximalely 80% of the pooled fund market place index return is net of an vorogo 30 basis point feel
- . . IBC/ Donoghue's Money Fund-All Taxable Average.

average of 10 basis points and in practice negotiated fee schedules have come down even more. In some cases, fees have been reduced as much as 20-1 30 basis points. In addition, since GIC alternatives have entered the market-place, contract fees on all book value products have come down due to increased competition. Today, pooled funds can purchase book value wrap contracts for 10-15 basis points annually where four years ago these same contracts cost 30-35 basis points annually.

A more in-depth analysis reveals the factors that have contributed most to the narrowed spread between these investment alternatives are; flatter configuration of the yield curve, reduced credit quality spreads on investment contracts, and their underlying assets. The latter of these reflects the historically narrow quality spreads in all sectors of the fixed income markets. These factors have reduced the yield advantage for stable value pooled funds and for all other fixed income funds as well. It is important to note that spreads are dynamic and will change and should not be evaluated at only one point in time. Exhibit #2 below highlights the current flat yield curve environment compared to three, five and ten years ago.

Myth "Common Theory": If rates begin to rise, not only will new deposits

to pools be unlikely, but heavy withdrawals to higher yielding short-term fixed income options could occur; thus resulting in net negative outflows from pooled funds

FACT Hueler's 12-year history of data shows no meaningful relationship between withdrawal rates and interest rate levels. Over the past seven years interest rates have experienced significant fluctuation, yet pooled funds have generally maintained strong cash flow. As noted in the Exhibit #3 below, in 1994 rates rose 250 basis points and pooled funds had a strong growth rate of almost 30%. Conversely, in 1995 rates came down 250 basis points, but pooled funds maintained a solid growth rate of just over 20%. If the theory were true that when rates rise dollars flood from the pooled funds, we should have seen much slower growth than what actually occurred in 1994. The fact is that the data shows a slight decline in growth rates during this period, but this was due to a much broader "decline in growth" trend which encompasses the entire **seven**year period. This broader declining trend is primarily due to large, fullservice providers reaching new client saturation and extensive transfers to equities due to stellar stock market performance and improved participant communication.

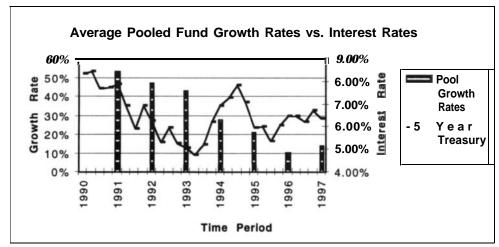
The main reason that **interest** rates alone have not impacted the pools to

Exhibit #2

411 data as of 6/30/97	1 Year	3 Year	5 Year	10 Year
	Average	Average	Average	Average
Average Spread between 3 Month T-Bills and 5 Year Treasuries	1.21%	1.17%	1.64%	1.66%

Darn Source: Bloomberg Financial Markets

Exhibit #3



5 - Year Treasury is the current coupon yield for the time period specified, AJJ data as of 6/30/97 Pooled fund growth rates are the growth rates for the Hueler Analytics Universe for the time periods presented.

the degree some suggest is because pooled funds have incorporated protective measures to mitigate withdrawals in a period of rising interest rates. Pooled funds am generally structured to discourage arbitrage activity by prohibiting direct transfers to competing funds and by giving the fund manager the option to defer a withdrawal request for up to 12 months. These provisions eliminate fund withdrawals intended to chase rising rates. When further analyzing the investor make-up of funds, Hueler data shows that on average an estimated 85% of deposits are from plans that use this pool as their sole stable value option. These demographics in conjunction with the protective structure minimizes the risk of flight in a rising interest rate environment. Additionally, many pooled funds are structuring their portfolios to be more rate responsive by incorporating products such as, actively managed synthetics, floating rate contracts and adjustable rate contracts. These products will help reduce the so called lag affect in a rising rate environment, further reducing potential transfer of assets.

It may also be worth considering what may happen to other asset classes when interest rates rise. Common sense tells us that in a period of rising interest rates, the stock market is more vulnerable for a correction and fixed income prices fall. Consequently, any pro-

tracted market correction could weaken investor confidence and cause participants to make transfers to the stable value pooled funds, increasing cash flow, not decreasing it.

Myth: Synthetic contracts and their participating contract provisions pose undue risk to portfolio returns in a rising interest rate envinment.

FACT It is valid to address the potential volatility that participating contracts may add to a stable value pooled fund, but is inaccurate to assume that all synthetic contracts are participating, In fact based on Hueler data, the average pooled fund has a 65% allocation to non-participating contracts. To help make this point, consider the example of one fund that has a 90% allocation to synthetics, but only a 15% allocation to participating contracts. A high allocation to synthetics does not necessarily result in the same allocation to participating contract provisions. In today's market, portfolio managers can purchase a wide variety of liquidity features on synthetic and separate account contracts.

What is most important is to evaluate and understand a pooled fund's overall liquidity structure and strategy rather than analyze in isolation one component of the total strategy. Each pooled fund manages its portfolio to provide sufficient internal liquidity to meet with-

drawal requirements. Internal liquidity can be derived from a variety of sources, such as short-term positions, regular principal and interest payments, and new contributions to the pooled fund. New contributions are only one component of liquidity management which is a dynamic process requiring continuous monitoring and evaluation. It is also worth mentioning, that pooled funds have excellent liquidity management track records, evidenced by the fact that no fund in the Hueler Analytics Universe has ever used their 12-month put contract provision over the past eight years.

Maintaining adequate internal liquidity allows pooled funds to purchase investment contracts with the lowest possible risk charges and pass the savings to participants as higher crediting rates. Pooled funds can therefore evaluate their internal liquidity levels and requirements and can purchase the type of investment contract provisions that best meet their needs at the lowest possible cost. As an investor, the key is understanding each individual fund's liquidity strategy and selecting the fund that maintains the structure and strategy with which you are comfortable.

In conclusion, over the **years** stable value pooled funds have played an extremely important investment role, especially for small and mid-size plans. Pools have offered very competitive returns, excellent diversification, and strong credit quality. Managers have taken great care to minimize the investment and cash flow risks as the stable value marketplace has grown and evolved. Today, investors and consultants should be well versed in a fund's structure and investment management practices before making an individual fund selection. It is also imperative that in this changing market there be regular, ongoing evaluation of an existing fund as new products and contract structures continue to develop. Comprehensive industry data used in conjunction with careful and thoughtful analysis will dispel these unfounded myths, helping investors draw sound conclusions resulting in prudent investment decisions.

SVIA 1997 National Forum

(Continued from page 1)

industry professionals. Other important program topics included standardizing performance measurement, disclosure criteria, stable value in a mutual fund format, and an update on important regulatory developments.

Since the Forum also serves as the Association's annual member meeting, the Association President gave an overview of the organization's accomplishments during 1997: Highlights included develop ment of a strategic plan for the Association, the introduction of two new newsletters, and completion of the Association's website! Reports from several Committee Chairmen detailed the major committee activities and projects.

Public Agenda Study

Ms. Jean Johnson, Director of Programs at the Public Agenda Foundation, started the Forum with a summary of the firm's recent opinion study on how Americans approach retirement and savings issues. Public Agenda was founded over two decades ago by Daniel Yankelovich. the social scientist, and former Secretary of State Cyrus Vance. The organization's in-depth research on how average citizens think about policy issues forms the basis for extensive citizen education work

The most recent study conducted by Public Agenda found that although retirees today are living longer with more dependable income and good health care, their dream of the "golden years" is in jeopardy. Many Americans arc seriously concerned about their financial future, yet while they know they are not saving enough, few seem willing to take the steps necessary to do anything about it. Most Americans are myopic in terms of their financial endeavors. Instead of saving, they have focused on meeting the steadily increasing new "essentials" of middle class life, such as eating out, driving fancier cars, buying biggers homes, and buying the latest electronic equipment. Credit cards have fueled this increase in consumption by providing an additional source of money for compulsive spending. However, they believe Social Security will be bankrupt and are unwilling to conduct an honest assessment of their own efforts to ensure a comfortable life during retirement.

In response to this set of facts, Ms. Johnson offered the following recommendations to help people begin to change behaviors that have become bad habits:

- Protect people from themselves -Make savings easy and automatic; offer simple solutions such as direct deposit of savings deductions from payroll checks.
- Put retirement savings on Americans' radar screens Encourage government leaders to use the public forums to raise the savings issue to the top of the national agenda.
- Challenge the consumption ethic Free enterprise does not mean a creditfinanced lifestyle. The media can assist
 in redirecting Americans' attention to
 what is necessary, important and
 valuable in their lives.
- Engage in more constructive discussions about Social Security Leaders should be urged to get past the stonewalling of partisan politics and get down to the business of putting the program back on track.

In summary, while Americans say they are willing to accept financial responsibility, in practice they do not act responsibly. The combination of low unemployment, controlled inflation higher consumer confidence, and rising wages that we enjoy today has provided the ideal environment in which to institute change.

Behavioral Finance

Assistant Professor David Laibson from Harvard University and Professor Richard Thaler from the University of Chicago both shed light on the emerging field of economic theory called "Behavioral Economics." Taking a page from social psychology, behavioral economics helps to explain why investors* good intentions to save more are often met with only limited success. Professor Laibson advocated that greater use of 401(k) plans can help put would-be savers back on track They provide the necessary structure to counter individuals* disciplinary shortcomings. For example, the systematic deposits required by a 40 l(k) plan temper an investor's desire to sacrifice longterm savings goals in favor of consumption in the short-term. Laibson noted that 401(k)'s can serve as a form of peer pressure, as individuals compare invesement choices and performance notes as a **form** of trying to "keep up with the Joneses."

Like Professor Laibson, Professor Richard

Thaler explained how behavioral finance theories allow economists to use the underpinnings of psychology to explain actions. One of Thaler's theories concerns what he has termed 'mental accounting." With this behavior, individuals tend to divide their money into

different mental "pots" and to treat their money differently depending on where it came from and for what use it is ultimately intended. For example, money in a retirement plan is usually thought of and treated differently from money in a brokerage account or money that is gained by some fortuitous event.

Over-optimism is another type of behavior encountered in the study of behavioral finance and can be responsible for would-be savers tendency to be oriented toward the short-term rather than the long-term

A Look Inside Washington

Washington journalist David Gergen turned the attention of the attendees toward politics as he explored the prognosis for the balance of the Clinton presidency as well his own interpretation of the political environment going forward. He then moved in to issues more specifically related to the stable value industry, with a particular emphasis on Social security reform.

Although definitive action toward making reforms in the Social Security system is not anticipated until after the next election, Gergen suggested that the next eighteen months could be critical in terms of building consensus among the disparate players and stakeholders. Since stable value investments do provide a middle ground in terms of a premium over money markets and a risk reduction tool when combined with equities, Gergen stated that the industry could have a vital role in the coming debate By organizing and mobilizing while the policy discussions arc still in the early stages, the stable value industry could have a real impact on the various proposals to reform Social Security.

Industry Trends

In addition to these broadly ranging topics, the Forum program also contained sessions more narrowly focused on stable value products and industry trends. Session topics included the development of a stable value glossary-orterms, participant disclosure criteria, and methodology for performance measurement All were beneficial and well-received. The latest Association industry-wide study provided an update on the assets underlying stable value portfolios and a description of their credit quality, duration, etc. In addition, a separate session was also conducted on "guaranteed equity linked GIC's." The closing session featured representataives from two prominent Washington, DC-based law firms, who presented an overview of current legislative and regulatory issues. The discussion included detailed analysis of the potential impact of these issues on the stable value industry.

Broad Investment Guidelines (Continued from page I)

reducing overall portfolio risk. By combining non-perfectly con-elated assets from multiple sectors, diversification effectively reduces the volatility of a portfolio's market returns (risk). By adding new, non-core sectors to stable value portfolios, plans can effectively reduce the overall risk profile.

Optimal investment strategies focus on aggregate portfolio risk instead of individual security risk. Such an approach will structure investment guidelines that broadly define and limit portfolio risk, instead of implementing detailed security-specific restrictions. Within this framework the appropriate statistics for measuring risk are:

- Portfolio duration (instead of individual security maturity)
- Average portfolio quality (instead of minimum credit quality for securities)
- Percent concentration to issues, issuers, and certain non-core sectors.

It is quite reasonable to limit non-core sectors to levels such as **10-20%** of total fund assets without giving up the benefit of broader guidelines.

In addition to their risk reduction benefits, more sectors provide investment managers with more tools to help generate attractive returns. The non-core sectors identified above can offer higher yields than more traditional stable value securities, especially those invested in on a buy-and-hold basis. Buy-and-hold strategies tend to produce low yields because unmanaged securities must have highly certain cash flows.

Because investments in these new sectors can assume moderately higher cash flow volatility, **they** should only be used within actively managed portfolios. Also, these non-core sectors **are** most effective if implemented opportunistically, rather than as permanent portfolio allocations. If used in this fashion, an active manager will shift among assets as relative valuations change, and will select the sectors that are most attractive on a risk-adjusted basis.

Before implementing broader guidelines, plans should research the investment manager's capabilities. It is extremely important that the manager have the expertise, analytics, and proven track **record** to add **value** and manage risk effectively in

each of the non-core sectors.

By taking this approach, stable value funds can reasonably expect to realize both reduced risk and improved returns, as illustrated in the chart below. Of course, the risk reduction will be most visible in the portfolio's unwrapped market value returns.

The Wrap Provider's Perspective

When underwriting book value wrap contracts, providers are most concerned with the fund's cash flow patterns and the contract's withdrawal risk. If comfortable with the withdrawal structure and the investment manager's abilities, most wrap providers will agree that limited diversification into new sectors by itself does not increase their risk. Therefore, plans should not experience objections or expect to pay higher wrap fees for portfolios with broader investment guidelines.

Practical Challenges: Internal Communication

Internal communication restrictions usually **create** the biggest challenge to incorporating broader investment guidelines. Stable value fund managers may wholeheartedly agree with the philosophy outlined above, but may find that some of the sectors described are inconsistent with participant communications. In other cases, investment guidelines must pass through a committee, which may not readily agree.

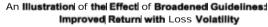
Many plans faced a similar communication

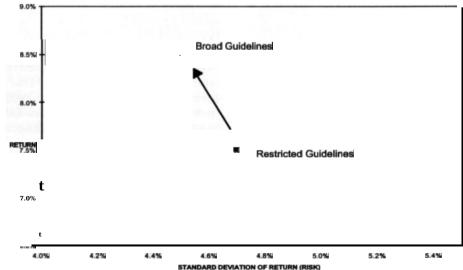
challenge not long ago when they described these funds as "investing exclusively in fixed rate GICs issued by AAA-rated life insurance companies." Plans quickly updated such language in the early 1990s to reflect their need to diversify. Portfolios restricted to AAA investments are "nice" to communicate to participants. However, participants choose stable value funds more because of the attractive, stable return than from a true understanding of the meaning of AAA credit risk. In fact, stable value portfolios that maintain restrictive AAA guidelines (and yet maintain reasonable return expectations) can experience increased risk. This is simply because returns will primarily reflect the ups and downs of the sometimes turbulent mortgage market.

Many plans were wise to incorporate language (in both investment guidelines and participant communications) that simply provides a general description of fixed income investments with stable returns. Such broad language provides plan sponsors the best flexibility in managing their funds and reacting to improved investment opportunities as the market continues to evolve.

Conclusion

By incorporating broader investment guidelines, stable **value** funds can both reduce risk and increase **return** potential. Broad guidelines do not make a conservative investment option **more** risky, just more sophisticated.





The QPAM Exemption in Stable Value Transactions:

Its Uses and Limitations

by Lazarus N. Sun, Esq., Jeffer, Mangels, Butler & Marmarol LLP

Constructing a stable value transaction can indeed be a feat of financial engineering. As stable value products proliferate, the number of variables that must be tracked increases. Each of the moving parts must be properly positioned and utilized to assure the integrity of the structure as a whole. In this regard, attention to not only the "front burner" business concerns, but also the less obvious legal issues, can be critical.

Everyone involved in the world of 40 1 (k) and other tax-qualified corporate retirement plans knows that they have to cope with a complex and arcane federal statute called the Employee Retirement Income Security Act of 1974, or "ERISA". As unappealing as it may seem, parties to a stable value transaction should squarely face the ERISA issues at the inception of a new structure or transaction, or risk being blind-sided by them later on. It would be a big mistake to automatically assume that a structure or transaction is legally viable because "there couldn't be anything wrong with what we're doing", or that the solution that worked last time will work for the current deal as well. Each time, whether and how a deal will be able to pass muster under the strictures of ERISA must be thought through. Perhaps the most unforgiving of these strictures are ERISA's infamous "prohibited transaction" rules.

The World of Prohibited Transactions - Extensive Breadth, Perplexing Detail, Strict Liability

Congress drafted the prohibited transaction rules with a view to eliminating any possibility of **self-**

dealing and conflict of interest on the part of fiduciaries and others acting on behalf of benefit plans. This explains the sweeping nature of the prohibitions against financial transactions between benefit plans and entities deemed related to them (designated "parties in interest*' by ERISA). Caught within this wide net are, among other things, sales or exchanges, loans or other extensions of credit, furnishing of goods or services, and transfers, between a plan and a party in interest. Parties in interest include (i) plan fiduciaries, service providers and employers, (ii) parents, subsidiaries and certain other affiliates of fiduciaries. service providers and employers, and (iii) certain officers, directors, partners and joint-venturers of fiduciaries, service providers and employers.

Given the breadth of these definitions, stable value transactions, and indeed the financial markets as a whole, would come to an absolute standstill if that were the end of the story. Because of the extensive relationships that financial institutions issuing stable value contracts have, either directly or through their affiliates, with benefit plans, it is extremely problematic for many issuers to determine that they are not parties in interest to a given benefit plan. If an issuer were to engage in a prohibited transaction by issuing a contract to a plan to whom the issuer is a party in interest, the issuer would be subject to a 15% excise tax, which could be increased to 100% if not corrected prior to an **IRS** assessment. These taxes, moreover, would be imposed every year that the transaction is not corrected. Correction generally would mean unwinding the transaction. If the transaction were to have adverse consequences for the benefit plan or its participants, the plan's fiduciaries could be liable for those adverse consequences, because they violated ERISA by allowing a prohibited transaction to occur. It would make no difference that the transaction was negotiated at arm's length, that it

appeared to be a good deal for the plan at the time it was entered into, or that the parties were unaware that a party in interest relationship existed. If a prohibited transaction occurs, fiduciaries and parties in interest are faced with strict liability.

Fortunately, exceptions to these prohibitions are provided in the form of exemptions, both by the ERISA statute and by administrative action on the part of the Department of Labor. The focus of this series of articles is a Department of Labor "class" exemption (i.e., an exemption that applies to any transaction meeting its requirements, not just to particular parties), denominated numerically as Exemption 84-14, and often referred to as the "QPAM Exemption". This exemption, however, must be used with caution. It is extremely detailed and imposes multiple conditions, each of which must be satisfied for the exemption to work. Thus, whenever the QPAM Exemption is being relied upon in a stable value transaction, it is incumbent on the parties (even those who have relied upon it in the past) to do the due diligence and analysis to assure themselves that each of the conditions is satisfied with respect to the current transaction.

The Rationale of the QPAM Exemption

The basic premise of the QPAM Exemption is that if a benefit plan enters into an arm's-length transaction under the direction of a significant financial institution whose business it is to manage money, and who is independent of both the plan sponsor and the plan's counterparty, there is the assurance that the transaction, even though it might happen to be with a party in interest, is not going to be tainted by any conflict of interest. The QPAM Exemption depends on the presence and role of that financial institution, called a "qualified professional asset manager" or "QPAM", which because of its qualifications and independence is assumed to have both the sophistication and purity of motive to be acting in the best interests of the plan. This is the underlying rationale behind the detailed conditions prescribed by the Department of Labor.

The **QPAM Exemption Finds a Home in Stable Value**

The QPAM Exemption was initially issued by the Department of Labor in 1984. Because of its complexity and conditionality, for a long time it was (and in some markets still is) the least favored among the statutory and class exemptions most frequently relied upon in financial transactions. Indeed, some institutions (and their attorneys) took the view that the OPAM Exemption should almost never be used because there were simply too many ways to run afoul of it. Indeed, sidestepping the QPAM Exemption has been a viable approach in markets where there are usually alternative exemptions to choose from, or where it is possible to establish through the due diligence process that no party in interest relationships exist between plans and their counterparties.

In the stable value market, however, the QPAM Exemption has become indispensable. This is due, in part, to the nature of the contract issuers, who are banks, insurance companies and similar financial institutions having many relationships (either directly or through affiliates) as trustees, investment managers, custodians, or other fiduciaries or service providers, with a host of plans. Because of this web of relationships, the prevalent approach, and in the author's view the most prudent one, in dealing with prohibited transaction issues is to start with the assumption that in any given transaction the issuer is a party in interest to the plan. To hope otherwise may well be futile, and even if not, would involve nightmarishly burdensome due diligence to confirm that no party in

interest relationship exists. There is also less than full assurance that such due diligence is ever exhaustive. Furthermore, giving the green light to a contract solely on the basis of the issuer not being a party in interest would require preserving that status, which would mean ongoing monitoring and the issuer's opportunity cost of having to refrain from accepting as clients any plans who are on the "prohibited" list until the contracts with those plans expire.

For all of the above reasons, the party in interest relationship should generally be assumed. Once that assumption is made, the contracting parties' only option is to find an applicable exemption. Deals involving pooled investment vehicles often rely on the class exemptions for bank collective investment funds or insurance company pooled separate accounts. Insurance products that can be structured as annuity contracts generally rely on the class exemption covering annuity contracts. Regular BICs or bank deposits can rely on the statutory exemption for bank deposits. However, there are a large percentage of stable value transactions that do not fit into any of the above categories, e.g., synthetic contracts issued by anyone who is not an insurance company to individual plans. Short of applying for an individual exemption, these transactions generally can rely only on the QPAM Exemption or, since 1996, the so-called "INHAM Exemption". The **INHAM** Exemption, however, is only available for plans of large corporate sponsors with "inhouse" stable value management. In addition, because of the size and procedural requirements imposed on the in-house manager by the **INHAM** Exemption (for example, the inhouse manager must be a separate corporation from the plan sponsor, and must register as an investment adviser under the Investment Advisers Act of 1940), and because of the newness of this exemption, to date it has rarely been relied upon in the

stable value world. Thus, in practice, the only exemption of broad application that can be used for this very large subset of stable value transactions is the QPAM Exemption. By necessity, the QPAM Exemption has become a fixture in the stable value marketplace.

Being a QPAM And Meeting the Exemption's Conditions

We come now to the QPAM Exemption itself. First, the following are the entities that can be a QPAM (the "entity requirements"):

- A bank, savings and loan, or insurance company that is authorized to manage, acquire, or dispose of plan assets, and that has, as of the last day of its most recent fiscal year, equity capital or net worth in excess of \$1 million; or
- A registered investment adviser that has, as of the last day of its most recent fiscal year, total client assets under management in excess of \$50 million, and either (i) equity in excess of \$750,000, or (ii) payment of all its liabilities guaranteed by an affiliate whose equity combined with the adviser's equity is in excess of \$750,000, or by a person described in the first bullet point, or by a registered **broker** dealer with net worth in excess of \$750,000.

Thus, one should not assume that every outside asset manager or GIC manager is automatically a QPAM. The applicable equity, net worth and/or assets under management minimums must be met, and must continue to be met every year.

Next, there are four key conditions (the "Exemption conditions") that any transaction seeking to rely on the QPAM Exemption must meet. (Although a number of other conditions are present in the QPAM Exemption, the author has deter-

(Continued on Page 18)

The Stable Value 100 Rate of Return Index

by Wayne Gate. John Hancock

The concept of the Stable Value 100 rate of return index arose from the Data and Research Committee's (DRC) rate of return measurement efforts. The idea is to create a historical stable value rate of return series from actual stable value fund experience.

One may ask what goals the industry will achieve from doing so. There are several associated with such an index. First, having a series which represents actual, measurable stable value fund rates of return provides additional credibility to and enhances stable value as a separate asset class. Second, such a series can be the source for calculating return, standard deviation and correlation statistics for use in asset allocation and financial planning models for individuals and plan participants. Third, it allows one to compare and contrast stable value with other fixed income asset classes such as money market funds, intermediate term bonds and long term bonds. Fourth, it can be a benchmark for longer term stable value performance measurement and comparison.

Let's consider each separately:

Enhancing stable value as a separate asset class

Recent survey **results** suggest that plan participants understand the stable value option less today than was **true** several years ago. Similarly, many otherwise financially astute people mistake stable value for "certificate of deposit"-like investments **on** retail fixed annuities. An identifiable rate of return series for stable value would help to highlight, define and differentiate stable value, and hopefully clear up most of the confusion.

Input for asset allocation and financial planning models to aid in comparing and contrasting stable value with other fixed income offerings

In the past, stable value and guaranteed products have received a significant amount of negative press. A large part of the reason is that there has been no real evidence that stable value provides any benefits when included within a diversified portfolio. **This was** one of the reasons that DRC undertook

the rate of return project. Utilizing the Bankers Trust stable value series, DRC has differentiated stable value from other fixed income assets and demonstrated the diversification benefits of including stable value within a portfolio. Stable value has the higher return characteristics of intermediate term bonds, the principal preservation characteristics of money market funds and lower return correlations with equities than either money market funds or intermediate term bonds. Therefore, stable value allows higher equity allocation and higher expected return with the same risk than either money market funds or intermediate bonds.

The Stable Value Investment Association communications efforts have focused on the results of this research and the financial press is starting to listen. In a couple of instances stable value has been included in financial planning models using the Bankers Trust data. Unfortunately. use in financial planning and asset allocation models may be limited because the Bankers Trust series do not measure bona tide stable value fund experiences. Instead, they are hypothetical GIC portfolios based on actual GIC rates available at the time. An index measuring actual stable value fund rates of return could increase inclusion of stable value in financial planning simulations.

Benchmark for longer-term performance measurement

Comparing stable value manager, stable value strategy and stable value investment

performance can be **difficult** when considering stable value on a book value basis. As a matter of fact, a sub-group within the DRC has recommended measuring performance using economic value rather than book value for such performance measurement. Over longer periods of time, economic value and book value measures converge. Therefore, this index can be useful as a performance benchmark for time frames covering a number of years.

What is the *Stable Value* 100 rate of return index?

The proposed Stable Value 100 is a dollar-weighted average of the annual rates credited to participants in the 100 largest stable value funds in the United States. To calculate this average, DRC would collect the rates credited to participants within the largest 100 stable value funds, and create the dollar weighted average from those data.

On a prospective basis, this is certainly feasible. DRC would collect additional information about other characteristics of these largest funds, including (but not limited to) duration, share of traditional GICs, share of actively managed synthetics, share of buy and hold synthetics, size of buffer fund, etc. Over time, this additional information will assist with the DRC performance measurement and performance attribution initiatives already underway.

But can we collect data retrospectively to create a historical series? We are **encour-**

TABLE 1

AT&T Aetna Boeing BellSouth Federal Reserve DuPont General Motors Ford **IBM** Halliburton Kodak ICMA **Lucent Technologies** Metropolitan Life NYNEX(Bell Atlantic) NADA JC Penney Northrop Grumman **Prudential Insurance** Philip Morris Shell Oil Ravtheon Westinghouse Union Carbide Xerox

A representative sample of the 200 largest corporate stable value funds

aged that the Profit Sharing / 401 (k) Council of America (PSCA) has collected and maintains some of this information. PSCA has surveyed its members annually about their defined contribution plans for forty years. Since 1978, these surveys have included questions about the annual rates of return of each of the fund options within the plan.

PSCA reports 25th 50th and 75th percentile rankings in its summary survey reports. We cannot use the information in this form but it may be possible to create a return series from the underlying data. PSCA is reviewing the availability of the underlying data.

With the required information, the construction of the historical index is a three step process:

- Identify the firms or organizations sponsoring the 100 largest stable value funds;
- " Collect the rate of return and balances of these stable value funds for prior years;
- Calculate the dollar-weighted average rate of return for the 100 organization universe.

We have spent a considerable amount of time identifying the firms or organizations with the largest stable fund balances. A number of changes have occurred, primarily as a result of corporate actions such as mergers, spin offs of divisions or **absorption** by other companies. As a result, the top 100 list from ten **years** ago is not identical to the current one.

To counter the effect of these actions, we have identified and tracked the 200 largest corporate stable value funds, a representative sample of which are listed at Table 1 on the preceding page.

There are no states or municipalities included even though some have large enough stable value balances to make the list. They am excluded because many of their guaranteed funds had included fixed annuities with surrender or transfer charges. In other words, participants were not allowed to transfer or withdraw funds from the guaranteed option without penalties or market value adjustments, and therefore are not considered comparable stable value funds. In addition, we have been considering whether to exclude firms who have closed the stable value option to new contributions and are in run-off mode.

Our next step is to collect the data. We expect the PSCA information is still available. Even if it is, not all firms have been included in the PSCA survey. To collect the additional data, we plan to contact the remaining firms with assistance from Cindy Hargadon and David Wray. We have tried to identify the appropriate stable value contacts at each of the firms, and may look for additional assistance from the Stable Value Investment Association membership in cases where we do not have the appropriate contact.

If you have any thoughts or comments, suggestions on more effective ways to proceed, or if you would like more information about this project, please call Wayne Gates at John Hancock at (617) 572-9 140.

Stable Value. .. Sightings in the Press!

by Andral Marx. New York Life Insurancel Company

As an industry, we are just beginning to leverage the power of the media. The Stable Value Investment Association's Education and Communications Task Force is working to strengthen and broaden our relations with the media. Due to these efforts, several articles have appeared recently in the financial press, including National Underwriter, Financial Planning, and Controller Magazine. Publications such as Pensions & Investments, Plan Sponsor, Defined Contribution Plan Investing and Defined Contribution News are on the "must read" list for plan sponsors and stable value professionals as they regularly report on our industry.

Participants, on the other hand, rely on a different set of sources. They get their information, and more importantly, base many of their investment decisions, on what is reported in the general media. Building awareness of the role of stable value investing for participants needs to be a primary focus of the industry at large. After all, the growth of our industry resides with the ultimate "consumers" - the plan participants.

This column takes a look at recent mentions of stable value in general interest publications. I think you'll be pleased to see this positive press.

Stable Value made headlines in *The New Orleans Times-Picayune's* Money column on January 28.1997, "GICS Add Diversity to Your Portfolio." Written by John Gin, a financial planner, the article notes the 'pretty decent' yields of GICs and their outperformance of money market funds over the past several years. The author suggests that no matter where an individual is in his/her career, "you may want to have some of your 401 (k) money in GICs or [Stable Value Products], just as you'll want to have some in stock funds.....Because in the long run, diversification is the key to investment success...."

Linda Stem from Reuters covered GICs in a story printed by newspapers across the country, including Buffalo News (3/11/97) Orange County Register (2/21/97), Washington Times (2/26/97) Fort Lauderdale Sun-Sentinel, St. Louis Post-Dispatch, and Arizona Republic. The article discusses how the industry has grown from GICs into stable value, and quotes Wayne Gates from John Hancock Financial Services and his research on the advantages of using stable value over bonds in retirement accounts.

Wayne Gates was also quoted in **Kiplinger & Personal Finance Magazine** in their September 1997 cover story "Getting the max from your 401 (k)." The article notes four strategies, one of which is "Don't rule out the stable value option"...and ... 'for the portion of your portfolio in fixed-income investments, stable value funds could be a better choice..."

The Wall Street Journal's Your Money Matters column on June 20.1997, "Leaving Your Job? Think Twice Before Stuffing Retirement Money Into an IRA mentions stable value as one reason to keep your money in the company plan. Writer Ellen Schultz cites Michael McCarthy from Hewitt Associates. who notes that, "There's no place to get equal investments [to stable value] outside a company plan." This story also appeared in the Star Tribune Newspapers of Twin Cities (6/29) Omnge County Register (6/29) and Chicago Tribune (8/7)

To submit mentions of stable value (positive or negative) in the media or for assistance locating an article, contact Andra Marx, New York Life, Stable Value Group at (973)33 I-2460 or email andra_marx@am.newyorklife.com.

CMT-Linked Products in Stable Value Plans

By Shivan Govindan, BT Alex. Brown, Inc.

In the last newsletter, I discussed how stable value investors could use Indexed Amortizing Notes as a substitute for mortgage backed securities. There is another family of instruments used widely by other investor segments which would benefit many stable plans: Constant Maturity Treasury (CMT) structures. The aim of this article is to describe CMT and to show how stable value investors can use CMT-linked products.

Most stable value portfolios use floating rate instruments. Floating rate instruments have two characteristics that appeal to stable value funds. Since the coupon they pay resets periodically, they track current interest rates closely. As a result, they always trade at or **close** to par value. This characteristic makes them suitable for the cash buffer of a plan, where they can be used to provide cash-like price stability while generally providing a spread to a **STIF**!

There is another kind of floating rate security that could prove useful to stable value plans. Securities paying coupons linked to Constant Maturity Treasury (CMT) indices offer many of the advantages of LIBOR-based floaters while providing other benefits as well. A CMT rate is a floating rate that represents the yield on a hypothetical treasury security with a constant time to maturity. The 5 CMT rate is the yield on a hypothetical treasury note with exactly five years to maturity. The CMT rate is very similar, if not exactly equal, to the yield of the on-the-run treasury security for the same tenor. Any difference between the CMT rate and the corresponding on-the-run treasury rate is a result of the fact that the maturity of the on-the-run treasury security (at any time

other than an on-the-run's issuance) is always shorter than the corresponding CMT maturity. These notes can pay **CMT-linked** coupons for maturities other than the length of the reference index. In other words, dealers can structure notes that pay 5 CMT for maturities other than five years.

CMT-linked notes provide exposure to a point further out on the yield curve than other floating rate securities. Generally, their coupon resets quarterly to the reference-CMT's level, plus or minus some spread. This spread is determined at the inception of the trade. In a steep yield curve environment, each quarter CMT-linked products will pay the reference index less a spread. In a flat or inverted yield curve environment, this spread will approach zero or even can be positive.

As of the end of November, the US yield curve is flatter than at most times in recent history. As a result, current CMT pricing looks unusually attractive. The table below shows where a LIBOR-flat issuer would be willing to pay various CMT indices through a note starting today versus starting at the beginning of the year. There were also many periods in 1996 during which pricing was less attractive than at the beginning of 1997.

The interest rate risk CMT investors bear is different than that of other fixed income products. In terms of interest rates, a CMTlinked note's market value is driven primarily by the shape of the yield curve. Like a standard floating rate note, its coupon will rise and fall with parallel shifts in the yield curve. Its market value, however, will not be materially affected by parallel shifts in the yield curve, but will be affected by changes in the shape of the yield curve. Think of it this way: suppose today you bought a CMT note that paid 5 CMT + 15 quarterly. If the yield curve steepens tomorrow, issuers will be willing to issue new 5 CMT notes with the same maturity

that pay a smaller or negative spread to 5 CMT. Since your note will pay a higher coupon on any given reset date than newly issued notes, your note will be worth a premium. Similarly, regardless of the absolute level of interest rates, if the yield curve flattens or inverts, then the value of the note decreases

Stable value investors may choose to invest in a CMT note for a variety of reasons. Investing in a note whose coupon floats based on a point further out on the yield curve will diversify the exposure of the floating rate portion of a portfolio away from the front end of the yield curve. If a money manager has the view that the yield curve will steepen, a CMT-linked note will outperform a note based on short term LIBOR indices. CMT-linked notes have also been used as a proxy for inflation protection. As the market predicts rising inflation, the curve generally steepens, and that expectation will be incorporated into the next reset.

As mentioned above, CMT-linked investors take the risk that the yield curve flattens after the purchase of the note. As with LIBORbased floating rate notes, the investor also takes the credit risk of the issuer. CMTlinked notes can also be wrapped and held to maturity by a plan. Not only do they offer exposure to points further out on the yield curve than do other floating rate instruments, CMT-linked notes will not extend or prepay (like mortgage backed securities would). For certain plans, wrap providers may be willing to wrap CMT-linked notes in a plan's cash buffer. CMT-linked products are widely used by insurance companies, financial institutions, money managers, and hedge funds.

Many thanks to Sandy Matthews, BT Alex. Brown for her useful contributions to this article.

Given a five-year, quarterly coupon, 30/360 daycount, spread in basis points:

As of December 2, 1997

2 CMT + 21

5 CMT + 15

10 CMT + 8.5

On January 2, 1997

2 CMT - 13

5 CMT - 16

10 CMT - 50

16

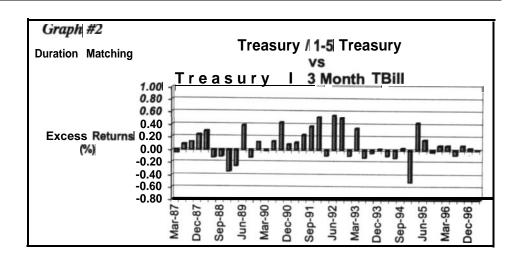
Strategic Asset Allocation

(Continued from page 7)

liquidity-matching basis. Namely, to arrive at a 10% availability of liquidity in a stable value fund we could allocate 90% of a fund's assets to the Lehman Treasury Index (i.e. evergreen management) and 10% to a STIF balance in 3 month Tbills. As previously shown, this provides the same liquidity as allocating 50% of a fund's assets to the Lehman Treasury Index and 50% to the Lehman 1-5 year Treasury Index (i.e. a 5-year ladder of GICs) | The graph on page seven shows the excess returns for these two alternatives.

The excess return of these two alternative portfolios differs every quarter. However, over a horizon of ten years the annualized excess return for the two structures was effectively zero (3 basis points). By referring back to the prior tables we know that the 90/10 strategic allocation has a duration of 4.2 years. The allocation using a maturity ladder has a 3.7 year duration. So while the longer duration portfolio has significantly greater tracking risk it has not shown any outperformance.

The second analysis compares the two alternative strategic allocations on a duration-matching basis. In this case the strategic allocation using the STIF balance is rebalanced each quarter to match the duration of the 50% Lehman Treasury Index /50% Lehman 1-5 Year Treasury Index. The Graph #2 shows the



excess **returns** for these two strategic allocations.

Over the ten-year period, the allocation using the maturity ladder (represented by the Lehman 1-5 Year Treasury Index) outperforms by a very significant 34 basis points.

Conclusion

The framework for this analysis is to target the liquidity needs for a stable value fund rather than to target an agreeable level of tracking of the credited rate against short rates. This relieves us of needing a well-defined relationship between interest rates and cashflows. In truth, there is little that can be stated without challenge about the magnitude or even the direction of this relationship. This is especially true in light of the fact that savings plans are

typically quite different in structure and demographics. Rather, we focus on defining a minimum level of liquidity that should be available for **participant** directed activity. This requires us to structure the strategic allocation of the fund around meeting this liquidity need.

We considered the two alternative structures by using all-treasury proxy indices for Lehman Aggregate evergreen management and GIC portfolio ladders. We can see that the strategy of maximizing Lehman Aggregate style mandates may not be optimal over utilizing a traditional maturity ladder for some portion of the fund's allocation. This should not be surprising. In effect, this is another manifestation of picking up the liquidity premium from the short end of the curve. The more "bulleted" structure using a passive ladder outperforms the more "barbelled" structure using a STIF.

Of course, there are many implications that should be considered. Any thorough analysis of a strategic allocation decision should also include a stress analysis of the conclusions. Furthermore, this analysis assumes that the excess return that can be earned by GICs over the 1-1 to-5 year part of the Treasury curve is commensurate with the excess return that can be earned by market valuebased spread product. And lastly, any consistent alpha that an active manager can earn is left out of the analysis as well. In the interests of space and time. we will leave these topics for future issues of this periodical.

DEADLINE FOR ARTICLE SUEMISSION FEB. 11

If' you're interested in submitting article for this newsletter, our editorial timetable calls for draft copy to be submitted by February 1. If you are interested, please call Allan Fen, Fidelity Managed Income Group, 617-563-5651.

OPAM Exemption

(Continued from page 13)

mined to focus on these four as those most relevant for due diligence and structuring purposes in putting together a stable value transaction.) The Exemption conditions are:

- The issuer, or its affiliate, must not have, and during the past year must not have exercised, the authority to hire or fire the QPAM with respect to any of the plan's assets, or to negotiate the terms of the QPAM's management agreement. For this purpose. 'affiliate' includes persons directly or indirectly controlling, controlled by, or under common control with the issuer, directors and certain key employees of the issuer, and named fiduciaries of the issuer's benefit plans.
- The **terms** of the transaction must be negotiated on behalf of the plan by, or under the authority and general direction of, the **QPAM**, and either the **QPAM** or a property

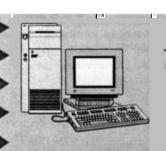
manager acting in accordance with written guidelines established and administered by the QPAM, must make the decision to enter into the transaction. In all cases, the QPAM must retain full fiduciary responsibility for the transaction.

- The party in interest must not be the QPAM or a person related to the QPAM. For this purpose, two persons are "related" if either of them (or a person controlling or controlled by either of them) owns 5% or more of the other.
- The assets of the plan in the transaction must not, when combined with the assets of other plans of the same employer and managed by the QPAM represent more than 20% of the total client assets managed by the QPAM.

The above may seem like a load to digest. But to step back a bit, both the entity requirements and the Exemption conditions make a great deal of sense when considered in

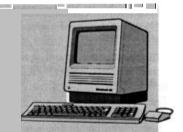
light of the objectives of the OPAM Exemption. The entity requirements are meant to ensure that the outside manager truly is a "qualified professional" when it comes to investment management. The Exemption conditions address the issues of: (i) the outside manager's independence from the party in interest (by requiring the absence of corporate affiliation and the absence of any power by the party in interest over the manager's appointment); (ii) the outside manager's independence from the plan sponsor (by capping the percentage of the manager's business that can come from the same plan sponsor); and (iii) the outside manager's really being the one in control of, and accountable for, the transaction.

The significance and implications of the above requirements and conditions with respect to stable value transactions are numerous. We will examine the terms of the QPAM Exemption in greater depth in Part Two of this series, to be published at a future date.



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It's full of late-breaking news about what's happening in the stable value indiustry as well as downloadable text of monographs and newsletters.



SVIA JOB CLASSIFIED

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Large international bank looking for individual to be responsible for maintaining, updating and monitoring all Stable Value Limits and systems. In addition, will backup client phone communication for two Stable Value contact personnel and assist with letter agreement and confirmation creation.

Individual must have an understanding of financial instruments and solid bowled e of quantitative techniques such as discount and compounding. Responsibilities melude: client analysis confirmation and letter agreement creation, spreadhsheet maintenance and operations systems liaison. Ability to be a self-starter and team player. Ability to handle multiple tasks.

Please fax resumes to: 212-916-7993, attention "SVI Products."

SVIA has created this newsletter section as a networking service to members searching for employees or positions in the stable value industry. If you are interested in posting a job classified please submit to SVIA Stable Times editor as a blind and with point of contact either a PO box or a phone/fax number.

Portfolio Perspectives

Stile Value Fund Durations:

The Manager Makes a Difference

by: Judy Markland, President, Landmark Strategies

The recently published **SVIA** 1996 Investment Policy Survey provides much-needed insight into the investment characteristics of stable value funds. The Association's Data and Research Committee undertook the survey to satisfy a critical need for reliable information on the makeup of stable value portfolios and their investment policy characteristics. The product of their efforts covers \$177 billion in stable value assets under management by four distinct manager groups: stable value managers, stable value pools, individual plans, and life company full-service single issuer plans.

One of the survey's more interesting findings is the disparity in average asset durations depending on the type of fund manager. The average for all funds was 2.6 years, but there is a wide range depending on the manager type. The typical SV pool

had an estimated duration of only 2.0 years, SV manager funds averaged 2.2 years, individual plans 2.9 years, and life company bundled full-service funds a full 3.5 years.

Today's fund durations are much **shorter** than they **were** historically. In the early **1980's**, a typical GIC contract had a full year window period and then accumulated interest for another 5 or 6 years. Fund durations then were typically about 3 to 4 years, which seemed very short to a market only recently weaned from traditional IPG contracts **with** no maturity and full participa tion in very long fixed income portfolios. Interestingly, the shortening since the early 1980's occurred as the level of interest rates declined. **Often** investors lengthen their durations as rates fall, hoping to maintain yield levels.

Onc of the masons for today's shorter fund durations is the growing prevalence of **STIF** funds to serve as a buffer for withdrawal risk. The SV manager funds and the SV pools had cash positions of 8 and 12 percent respectively at year-end 1996. Individual plans and the life company full service funds

- with much higher average durations - also had significantly lower cash positions. (The individual funds sampled in the survey are jumbo plans which had historically had very stable cash flows. The life company funds are invested directly in the company's general account, where product diversification helps diversify liquidity risks.)

There are **other**l differences in investment style which help explain some of the disparity in average durations among manager groups. The individual plan **managers** have almost one-fourth of their SV funds invested in actively-managed, evergreen synthetics. Most evergreen funds are managed to bond market benchmarks with durations of 3-4l years or longer The SV managers **rely**l much more heavily on buy-and-hold synthetics, which generally have a similar duration when purchased but a far lower one over theil life in the portfo-

Another factor affecting a fund's optimal duration is the extent it participates in plan cash flow risks. The greater the risk participation, the more potential for volatility in the blended rate due to plan withdrawal activity. Short asset durations and large cash buffers mitigate this risk It's not surprising that the pools, with more than 60% of their contracts participating in plan cash flow risk, have the lowest asset durations and the highest cash positions of the four manager groups.

The life company full-service **funds** have two structural differences that have historically allowed longer portfolio durations. Many are class-year funds, where each period's contribution shares only in that period's new investments rather **than** buying a full share of an existing fund. Any rate lag in a rising interest rate market isn't as much of a deterrent to new deposits and new sales for this type of plan. Class-year plans do have greater withdrawal risk, but many of these funds also limit the amount which any participant may withdraw at book.

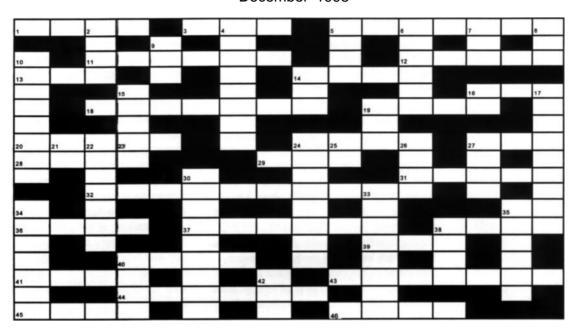
Interestingly the Association survey found little direct correlation overall between the various funds' durations and their crediting rates. In part this is due to the volatility of market rates in recent years. But it also reflects the complexity of stable value funds and the large number of factors which influence their yields.

12/31/96 SV Fund Characteristics by Manager Group

	s v	s v	Individual Life Co. Ful	
	Managers	Pools **	Plans	Service
Duration (\$ weighted average in years)	2.2	2.0 ^b	2.9	3.5
Straight average Low High	1.6 2.9	2.0 0.9 3.3	2.7 2.0 3.5	3.4 2.5 4.4
% of cash & short-terms	8.1	12.0	5.9	0.7
% evergreensynthetics	7.9	15.0	23.4	_
% participating in plan cash flow experience	6.0	63.0	29.4	36.3
Blended rate	6.49	6.43	6.70	6.48

^{*}Estimated *Straight avenge.
Source: SVIA 19% Investment Policy Survey

Stable Times Crossword Puzzle December 1998



Across

- 1. After death
- 3. Actuarial designation
- 5. Thousand million
- 11. Premium over Treasury
- 12. Rot
- 13. Arbitraoeur (slang)
- 14. Buy and
- 16. GIC quote/proposal
- 18. Mere _
- 19. Synthetic book value agreement
- 20. Purple flower
- 24. Bond prepayment
- 27. Housing agency (abbr.)
- 28. Adolescent

- 29. Heavy weight
- 31. Sticker
- 32. Investments
- 35. to exist
- 36. Famous garden
- 37. A hotel chain
- 38. Dispute
- 39. Computer network
- 40. PAC prepayment range
- 41. Swap Association (abbr.)
- 43. Actively or passively
- 44. Kind of madness
- 45. Profit
- 46. To exchange for money

Down

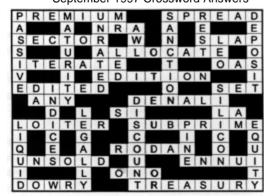
- 2. Accounting board (abbr.)
- 4. benchmark
- 5. Spanish Kiss
- 6. Maturity structure
- 7. Tax code (abbr.)
- 8. A negative vote
- 9. Tax-favored account (abbr.)
- 10. Property and
- 14. Not hers
- 15. Godzilla's winged rival
- 16. 0.01% (abbr.)
- 17. Failed securities
- 19. Years to maturity (abbr.)
- 21 That is (abbr.)

- 22. Tenants
- 24. Legal agreement
- 25. Article
- 26. Boys
- 27. Par
- 30. Promise to pay
- 33. Examine
- 34. Extending credit
- 35. Paying outside PAC bands
- 38. Fannie Mae (abbr.)
- 40. Farm building
- 42. Wager

Completed by: _____

Answers will be in the March issue along with names of the successful puzzlers. Fax solutions to SVIA @ (202) 463-7590.

September 1997 Crossword Answers



Successful Puzzlers:

Paul Reiz/Transamerica! Andy Apostol/PRIM(
Bid Desk/Diversified Financial Products; John Milberg/
Pacl Mutual: Robert Krebs/NISA:Staff! Jackson National Life.



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