.....CPS BULLETIN.....

The Newsletter of CPS Actuaries and Computer Programming & Systems, Inc.

Volume 2, Issue 4 April, 2002

Introduction

This issue of **CPS Bulletin** begins with an article about assets. It is the first of a two-part article (the second part will appear in our June, 2002 bulletin) and it describes some of the issues a fraternal benefit society should consider when investing its assets to support its liabilities.

Our second article in this issue relates to getting the most out of your e-mail software. In particular, it will describe ways to filter out many of the junk e-mails that you receive so that you do not have to sort through them just to find the one or two e-mails that matter to you.

We have also provided an update on recent state and NAIC activity, including the NAIC's adoption of a Model Act related to small face amount policies. An article about small face amount policies appeared in our June, 2001 issue of **CPS Bulletin**, which can be obtained by visiting our company web site at **www.cpsincorp.com**.

We also have a plug for our new illustration software that was developed in conjunction with a leading provider of software programs. If you are interested in seeing a demo of the software, please let us know and we can provide you with a demo CD. ❖

INSIDE THIS ISSUE

Asset/Liability Matching

This is the first of a two-part article dealing with assets and an appropriate portfolio of assets for a fraternal benefit society. In this issue we will address the theoretical considerations involved in building a suitable asset portfolio for a fraternal. In the second part, which will appear in the June issue of **CPS Bulletin**, we shall look at more practical aspects of investments, such as whether U.S. treasury bonds and notes or corporate bonds or preferred stocks are appropriate for a fraternal's portfolio.

One of the new filing requirements this year (which was due April 1st) was the Supplemental Investment Risks Interrogatories. At first glance, the Interrogatories do not seem excessively onerous. They provide a summary of the assets owned as of December 31st, and show the percentage of total assets each asset group accounts for. It also requires you to list the 10 largest exposures your society has to a single issuer/borrower/investment. These new Interrogatories, coupled with the requirement for calculating the Risk Based Capital (RBC) figures (which some states were requiring for the first time this year and which also consider your asset make-up) lead to an interesting question: Why do regulators appear to be increasingly concerned with investment matters?

While regulators have always had some interest in assets, these new tools allow them to see at a glance a picture of the society's assets. Their concern seems to be driven by the fact that inappropriate investments are one of the problems that can render a Society insolvent.

When most people are asked about investment risk, the first notion that normally comes to mind is the security of capital (i.e., how likely is it that the investor will lose some or all of his or her capital). This view of investment risk does not capture the entire definition of investment risk. If, for instance, you are investing with a

*See **Assets** on page 2*

Assets, *continued from page 1*

view of meeting inflation related obligations (such as a pension fund or college tuition), investing the capital in cash will certainly preserve capital, but it is unlikely to meet the objective.

For this reason, investment risk should not only be thought of in terms of preservation of capital, but principally should consider the likelihood that one will fail to meet one's investment objectives. For an insurance company, this translates into examining the projected cash outgo (such as payments of death benefits, maturities and surrenders, as well as expenses of management and administration) and ensuring that the assets are sufficient to meet these obligations.

For most small-to-medium sized fraternals, this is an easier task than for other insurers because surrenders and lapses are so much more predictable from year-to-year, in part because they are relatively insensitive to the general level of interest rates. In particular, where the bulk of the liabilities are for traditional rather than interest-sensitive liability contracts, the vast majority of the liabilities (dividends aside) are relatively fixed.

In this framework, a fraternal's natural investments would be bonds because bonds produce fixed investment returns. One can theoretically design a bond portfolio that will meet the expected cash outflow pattern. This construction is called "matching". The beauty of matching is that it is independent of the general pattern of interest rates. If interest rates were to rise dramatically (and thus bond prices fall), the actual income from the bond portfolio will still be able to meet the obligations.

In practice, it is very difficult, if not impossible, to construct a portfolio that exactly matches a complex set of obligations.

It has also been shown that if one were to build a bond portfolio where the present value of the asset cash flows will equal or exceed the present value of the liability cash flows at all interest rates, then this portfolio will be able to meet the obligations, regardless of the movement of interest rates. This would be true even though this portfolio does not quite match each liability stream with an asset stream. This portfolio construction can be expressed as a portfolio with an asset stream where the spread of the assets is "longer" than that of the liabilities. In this construction, if interest rates were to rise dramatically, leading to a steep fall in bond prices, one will still be able to adjust the portfolio by appropriate reinvestment of income and maturities to meet the obligations, regardless of the movement of interest rates. This process is called "immunization".

It is important to note that the immunization process immunizes the society against profit as well as against losses. Also, matching or immunized portfolios are so difficult to attain in practice, that realistically, their principal function is to measure to what extent the actual portfolio differs from the ideal portfolio and thus provide us with a measure of investment risk.

If a society wishes to depart from the ideal matched or immunized portfolios, then this decision should be made with the full knowledge of the mismatch risk involved. A market-timing strategy may be appropriate under certain circumstances. An error in such a timing strategy (e.g., investing short-term in the expectation that interest rates will rise) may, however, impact a society for many years to come.

In practice, an ideal portfolio may be approximated by using the steps below. Accordingly, the difficult part is the cash flow projection. Once that is available, the remaining steps are relatively simple. The cash flow projection should provide an approximate liability outgo pattern. From that pattern, certain characteristics of the distribution can be determined.

The steps for determining an ideal portfolio are as follow:

1. Ladder the assets in such a way that the maturities span the bulk of the cash flow outgo. It will be very difficult to obtain suitable maturities for outgo expected 30 or more years away.
2. Test the sensitivity of the assets to movements in interest rates by comparing the statistical characteristics of the asset distribution with the liability characteristics brought out in step 1.
3. Reconfigure the portfolio and repeat steps 1-2 until satisfied.

In Part Two we shall look at the selection of investments in order to maximize the return on the portfolio.

Dealing with Junk e-Mail

We've probably all heard by now that postal rates are set to increase. There is also legislation pending in Congress to create a central Federal location for consumers to contact in order to have their name removed from telemarketing lists. This is making e-mail communication a preferred choice of reaching consumers since it presents a relatively cheap and unregulated alternative. A study conducted by Pitney Bowes showed that the average office worker received a cocktail of some 200 faxes, emails, voicemail, mail, courier items and telephone message slips each working day. E-mail messages now account for about 20% of these items, or 40 a day. Most people are unlikely to escape a significant influx of e-mail, even in their private life.

How do the senders of e-mail get your address?
They get it primarily from the following sources:

- You gave it to them when you visited a web site or purchased an item over the Internet
- Your e-mail address was harvested from a Newsgroup or Internet Bulletin Board.
- When visiting a site, you chose the *opt-in* option thinking that you would only get e-mails from that site.
- An on-line business sold your address when they were purchased by another company.

Dealing with unwanted e-mails (often known as Spam) requires the efforts of the Internet community, your Internet Service Provider and yourself. In this article, we'll provide some simple steps you can take to limit the amount of Spam you receive.

One way to limit Spam is to have two e-mail addresses. One address would be given to friends and family and business associates who, in all likelihood, would not be sending Spam to you. The other address would be used when surfing the Internet. This address would be used, for example, as your e-mail address whenever you made a purchase over the Internet. On the face of it, this will require you to constantly check two e-mail addresses. However, in practice, you will only need to examine the secondary address whenever you expect a message from a vendor. Free e-mail addresses are available from many Internet sites, including Yahoo.

You should avoid chain letters, virus warnings and other e-mail messages that urge you to forward copies to all of your friends. Many of the "prize packages" and "virus warnings" touted in these e-mail messages are frauds. The objective is to circulate these "snowballs" to thousands of e-mail addresses and these e-mail addresses are then sold to senders of Spam.

Also, since spammers sometimes get you specifically to "unsubscribe" in order to validate a randomly generated e-mail address, do so only in response to messages from companies you recognize and trust.

One of the best ways to sort through your junk e-mail is to filter them out using your e-mail program (such as Microsoft Outlook or Netscape Navigator). The following steps can be taken in Microsoft Outlook to filter your e-mails:

- Under the menu item Tools, select Rules Wizard, then click the New button.
- The Rules Wizard will now walk you through the steps for creating filters to sort your incoming e-mail.

The Rules Wizard provides a number of ways to filter out the junk e-mail, including (1) by sender, (2) by specific words in the subject line, and (3) by specific words in the body of the e-mail.

In order to separate the Spam from the e-mails you receive from those names in your address book, we would suggest creating a new folder (e.g., Good E-mails). Using the Rules Wizard, you could then create a filter that would send e-mail received from people in your address book directly into this Good E-mails folder with the Spam continuing to go into your Inbox folder.

The Rules Wizard will also enable you to identify key words that may be included in the title or body of an e-mail and automatically delete it or send it to the Trash folder. For example, if you have been inundated with e-mail advertising a "Free Offer", you can use the Rules Wizard to move to the Trash folder all messages with the words "Free Offer" in the subject line or the body of the e-mail.

If you are really concerned about not wanting others to find out about your e-mail address, then you can use web sites that are known as "annonymizers". These web sites (such as sneakemail.com or

See **Junk e-Mail** *on page 4*

Junk e-Mail, *continued from page 3*

www.annonymizer.com) allow you to visit web sites with your address hidden from the site. For some of these services, each time you log-on a unique e-mail address is created. Any e-mail sent to this anonymous address may then forwarded to your real address. If you begin to receive Spam at this address, then you will know the sender who sold you down the river and can avoid them in the future.

More and more Spam e-mail will be heading to your e-mail address in the near future. You should experiment with different ways to sort through it so that you efficiently eliminate the junk. CPS would be happy to assist you with the Rules Wizard in Outlook if you have any problems establishing the filters.❖

Interest Rate Monitor

The following are some key interest rate benchmarks:

Benchmark	*Current*	*3 Months Ago*	*1 Year Ago*
Fed Funds	1.75%	1.56%	5.00%
Prime Rate	4.75%	4.75%	8.00%
30 yr mortg	6.55%	6.67%	6.70%

Source: www.bloomberg.com as of April 8, 2002.

Illustration Software

CPS has teamed up with a leading insurance company software provider to develop an NAIC compliant illustration software product. The software runs on all Windows platforms, including ’95, ’98, 2000, NT and XP. A demo of the software is available on a CD-ROM for anyone interested it testing it out.

About CPS

CPS Actuaries and Computer Programming & Systems, Inc.

CPS is an independent company with over 35 years of service to our clients. We offer a wide range of computer and actuarial services. For information regarding our services, please call us at **203-324-9203**, or visit our web site at **www.cpsincorp.com**. ❖

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Regulation Update

The following is an update on a couple of issues of note with regard to the NAIC.

Small Amount Policies: The NAIC has adopted a model act to require a disclosure document for small face amount policies whenever the premiums paid will exceed the face amount at any time during the life of a policy. The disclosure can be given just to the affected people or to all policyholders.

We may now see State Insurance Departments following up with various laws and regulations supporting the concept. For example, Illinois is discussing an Insurance Department Bill that will limit the premium that may be collected over the life of a policy under $20,000 to 2½ times the face amount.

The Gramm-Leach-Bliley Act (GLBA): In our March 2001 issue we featured GLBA, which requires annual delivery (to each member) of the Company’s Privacy Policy. Fraternals should note that postal rates will be increased on June 30th and you might therefore wish to mail the notices before the increase goes into effect. Also, the Pennsylvania Department has confirmed that notification via the Society’s official publication is an acceptable notification method.

Long Term Care Insurance (LTC): As a result of LTC becoming more popular, the NAIC issued in 2001 an LTC Model Regulation. Following that lead, Pennsylvania finalized regulations this March requiring insurers to be more forthcoming about the possibility of future rate increases in order to protect consumers against rate spirals for LTC policies (which typically have no non-forfeiture values). Also, New Jersey has published on its web site a very good introduction to LTC issues (www.state.nj.us/dobi/ltcguide.htm).

Eschewing The Escheat: A Useful Web Site

Those Fraternals battling to trace unreachable policyholders may wish to visit Ancestry.com’s database. The database contains the records of 70 million deceased persons who had Social Security numbers and whose deaths have been reported to the Social Security Administration. The address is www.ancestry.com/search/rectype/vital/ssdi/main.htm