

....CPS BULLETIN....

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

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Introduction

Because of the acceleration in merger activity among fraternal benefit societies, we started a discussion in the last **CPS Bulletin** of the financial considerations that should be part of the merger process. In Part I (which is available by clicking on Newsletters at our web site) we showed that the Annual Statement basis is not always the most appropriate to evaluate the interest of two sets of policyholders. In Part II, we expand upon the discussion of the EV concept - the "embedded value" (or "economic value") by reviewing a practical example of how this concept would work.

We have introduced a new section in the Bulletin this quarter. This new section will highlight some of the new CPS services we offer that you may wish to consider.

Finally, our computer article advises readers of a very useful service available in the market place, which works in a way similar to the way that LoJack™ works for cars. This is a piece of software that will greatly enhance the probability that you will be reunited with your mislaid or stolen computer, thus preventing much angst.

If you have any comments or suggestions on how we can improve **CPS Bulletin**, please contact us by visiting us at www.cpsincorp.com. ❖

Would you be my Partner (Part II)?

In the last **CPS Bulletin** we commenced a two-part article discussing merger considerations for fraternal benefit societies. We reviewed some of the potential problems inherent in an Annual Statement balance sheet approach and discussed EV - the "embedded value" (or "economic value") approach prevalent in Europe and Canada.

The EV approach values the projected future net income of an insurance company and will usually give a value that differs from the current annual statement surplus figure. The EV approach may be used by a fraternal that is thinking of merging to see what value they can bring to a buyer if certain changes can be effected (such as expense reduction or the sale of their home office building). It may also be employed by a fraternal seeking to take over a fraternal through a merger to see how the results of the combined societies will differ from the results of the two separate entities.

In this article we shall demonstrate how the EV method would work in practice. The best way to understand this approach is through a numerical example (please bear with us through the complex arithmetic).

The table at the top of page 2 shows a society with an existing line of life insurance business (LOB) generating premiums of 1000 in the current year, 980 next year, 950 in the following year and so on. The investment income expected from the portfolio is shown on line 2. Total income is premiums plus investment income. Total outflow consist of benefits, reserve changes, expenses and any taxes due. The difference between total income and total outflow is book profit.

The analysis spans 7 years because of space limitations. In practice, however, the projections will span 20 or more years.

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Item	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
a. Premiums	1000	980	950	930	905	875	850
b. Investment Income	380	390	400	390	380	365	350
c. Total Income	1380	1370	1350	1320	1285	1240	1200
d. Benefit & Reserve changes	780	775	780	785	770	765	760
e. Expenses	500	540	580	620	660	700	740
f. Total Outgo	1280	1315	1360	1405	1430	1465	1500
g. Book Profits	100	55	-10	-85	-145	-225	-300
h. Surplus (end of year)	5100	5155	5145	5060	4915	4690	4390
i. Present Value of book profits @ 4½%	98	51	-9	-73	-119	-177	-225

The book profits (line g) are discounted at 4½% to give a present value of the future book profits resulting from this LOB.

We start with a 4½% discount rate since this is consistent with the current yield on 10-year treasury notes. We shall also test the value using a 5% rate, which is consistent with the current yield on 30-year treasury bonds as well as 6%, which allows some risk premium and is consistent with the yield of high quality, longer-term corporate bonds.

The total value of this LOB is given by the surplus at the beginning of the current year of 5,000 plus the sum of the Present Value of Book Profits (line i) of -454 for a total EV of 4,546. This compares with the annual statement surplus figure of 5,000. When the discount rate is changed to 5%, the EV increases to 4,562, and at 6% to 4,589. These may not seem to be significant variations but when the projection is extended to 20, 30 or 40 years, the weight of the present value of book profits will rise compared to the current surplus and the differences will be much more significant.

While the above is a simplified example, it is not very far removed from the business model of a number of small fraternal. The main missing ingredient in this analysis is the value of a society's future new business capacity and goodwill. If a Society has an active agency force or branch/lodge system that can generate new business after a merger, then this is worth something to The Acquirer and should be considered in the analysis. The valuation of those elements is very subjective. For the purpose of further discussion, let us assume that the value of new business capacity and goodwill is equal to 20% of the value of the current LOB.

Thus, assuming a discount rate of 6%, the EV of the current business model would increase to 5,507 (4,589 times 1.2). Please note that for a society with a small or no sales organization that writes comparatively little in the way of new business, the factor would be near or at zero.

What would happen if a society merges with another society and this results in savings of 400 a year in expenses? The present value of book profits using 6% is now 1,888, which together with a surplus of 5,000 gives a total EV of 6,888. If new business and goodwill (factor in 20%) are considered, then the EV grows to 8,266. The merger has thus increased the Society's value by 2,758 (8,266-5,507), which is an increase of 40%. Thus the members of the society could conceivably claim some sort of increase in the value of their certificates of up to 40%.

What are the practical implications of this train of thought? First it seems that in a merger situation the best approach is to do a full EV analysis for both the company being merged and also The Acquirer. This will enable you to get complete before and after (merger) pictures and a truer estimate of the benefits of the merger to both groups of members. Obviously there will still be no unique result because there will be a number of possible "after" scenarios (even when the same rate of discount is employed) but there will be a better awareness of what The Acquirer can and may offer the members of the merging society.

We at CPS have for many years specialized in M&A activity and would be happy to advise you if you find yourself in a potential merger situation ❖

Locating Lost Laptops

Laptops are in. Laptop sales now surpass those of desktops and many of us are carrying them with us almost everywhere.

But did you know that in the past 6 months alone, just in taxicabs, 11,000 of those charming machines have been left behind? And according to Safeware, an Insurance Agency specializing in laptop computers, 600,000 laptops are stolen every year.

Laptops are no longer that expensive (a straightforward system retails for as little as \$500) but many of us have many aspects of our lives memorialized in our computers and some of us are not religious about backing up all our data. So while the cost to replace a system may not be overwhelming, the loss of our personal data could be very expensive.

What are the chances of locating a missing laptop? Is there some kind of insurance that one can purchase to put your mind at rest?

Well, it turns out that there is software available that will help locate your laptop much like a LoJack™ system works for cars. This software also offers data protection and intrusion detection.

One company who markets that type of software claims that 85% of all laptops using its software are recovered and that recovery takes place usually between 1 and 2 weeks from the date of loss or theft. This company states that their recovery rate of 85% compares with a 3% recovery rate for laptops that do not have that type of protection.

How is the machine recovered if the software is installed? The user is able to choose whether to have one or two levels of password protection on the computer. Once the incorrect password is entered 3 times, the next time the laptop is connected to the internet, the software sends a signal to central monitoring that identifies the location from which that computer is calling. The software also has the capability to send an e-mail to your tech support group (e.g. CPS). The "unauthorized user" is unaware that an alert is being transmitted. This information is provided to law enforcement together with an affidavit, which, they say, is sufficient to be used for a search warrant. Of course, if the computer is stolen from your car or

briefcase the software may help in recovering those items also. The two-level password system enables the user to choose whether to allow office colleagues, for instance, to use the computer or to stop anyone from unauthorized use.

As part of the protection package, the software creates a virtual secure drive for sensitive information. Once an unauthorized attempt to use the computer has taken place, the contents of that secure drive are encrypted and hidden from view. This means that anyone looking at your directories will not see your files. Simultaneously, access to the remote server and other online services is terminated and communication with PDAs, phones and similar devices is prohibited. Neat, eh?

Laptops equipped with this software will help in certifying compliance with HIPAA, Gramm Leach Bliley (see *CPS Bulletin* of March 2001) and Sarbanes Oxley (see *CPS Bulletin* of July 2004) requirements.

The cost of the software is in the region of \$50 for one user for one year. The cost is reduced with an increase in the number of users under one license and for multiyear contracts.

Other hints to help in preserving and recovering your laptop and data:

- Make regular backups and keep them in separate addresses. There are many simple ways to make these backups and CPS would be happy to help you choose a method that will work for you.
- Make a note of all serial numbers for hardware and software. It gives the police something to work with.
- Mark your machine with invisible ink with a phone number in case it is recovered from the thief.
- Carry your laptop in a case which does not look like a laptop case. Otherwise, it may attract the attention of organized gangs that work certain notorious locations and may also result in the loss of your wallet.

If you think you would like to investigate how such a system can benefit your laptops, please give CPS a call and we would be happy to help you choose the best system for your specifications. ❖

New CPS Services

Pension Plan Services

CPS is in the process of expanding its pension consulting services. These services include (a) the valuation of pension liabilities, (b) preparing 5500 forms, (c) plan design and (d) performing individual pension calculations. Please give us a call if you would like a quote for our services.

Printing Services

For those clients who do not have their own printing facilities, we can design and distribute printed products ranging from booklets and brochures to Multi-Part Forms and Checks. CPS would be able to assist fraternal in putting together any forms whether it be policy forms, new bylaws, news or other announcements. We hope that this will provide an integrated and comprehensive service to our clients. ❖

About CPS

CPS Actuaries and Computer Programming & Systems, Inc.

CPS is an independent company with over 35 years of client service. We offer a wide range of computer and actuarial services, including the following:

- Actuarial valuations
- Annual and quarterly statement preparation
- Policy administration software
- NAIC compliant illustration software
- Web site hosting, instant messaging and e-mail
- Design, install and maintain local and wide area networks
- Hardware & software installation and upgrades

For more information regarding our services, please call us at **203-324-9203**, or visit our web site at **www.cpsincorp.com**

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Regulatory Update

Pennsylvania Insurance Department Updates Record Retention Rules:

PA Insurance Department has issued Bulletin number 2005-09 which details the guidelines for record retention by insurers. That notice states that, in general, records should be saved for a period of 5 years from the date of the last financial examination or until the next financial examination, whichever is the longer period. The Department mentions that this will comply with its own requirements but there may be other entities (such as the IRS) that may require longer retention periods, which the society must comply with. Notable exceptions to the five-year period are unclaimed property, reserve calculation documentation including actuarial opinions (10 years) and checks for important payments such as taxes and property purchase (permanently). The Department states that records need not be kept in a specific format and, for example, totally paperless records or downloading electronic records onto paper are satisfactory.

NY Replacement Regulation

To facilitate application of Regulation 60, the NY Department is creating a database that will enumerate the person designated by each insurer to handle replacement matters. Agents and home office personnel will therefore know where to send documents such as the replacement notification and completed disclosure statement, by logging on to the database.

All insurers must therefore notify the Department forthwith of the designated contact person by completing the form found at the address below and notifying the bureau of any change in this information. www.ins.state.ny.us/reg60/rg60form.htm. ❖

Interest Rate Monitor

The following are some key interest rate benchmarks:

<i>Benchmark</i>	<i>Current</i>	<i>3 Months Ago</i>	<i>1 Year</i>
Fed Funds	3.75%	3.25%	1.75
Prime Rate	6.75%	6.25%	4.75
30 yr mortgage	5.66%	5.28%	5.27

Source: www.bloomberg.com as of October 21, 2005.