THE X0575 MISSION

The purpose of this paper is to serve as an update to Research Report X0515 which was originally written in 1983. At that time net payoff (NPO) coverage was a fairly new concept and a limited number of computational methods were applied. Since that time NPO plans have become both more commonplace and more complex. The Carleton software library alone has over 45 NPO plans on file.

The focus of this report is on premium calculation and it relation to the corresponding death benefit. We are not trying to reconcile actual pay-out practices upon death but work from the standpoint of computing premiums that are integrated into the loan (or sales) origination process. **For the purpose of credit contract origination, we will work solely with the concept of scheduled dates, balances, and payment amounts.**

The goal is to highlight the similarities and differences between gross payoff and net payoff coverage. The report will also look at some of the concepts that form the basis of many NPO plans in use today across the United States.

To promote a clearer understanding of the concepts we will emphasize Carleton terminology and definitions as the base to work from. Many labels in the credit insurance industry are used with varying, and sometimes vague, meanings. Rather than add to the confusion, we will attempt to step outside of the everyday "real world" commotion to conduct a clear, concise academic discussion.

We encourage comments and feedback from the industry. As with all Carleton Research Department publications, our goal is to promote informed discussion and debate in order to achieve a better understanding of the industry in which we work.

Premium Computation

Premium Charge Commensurate with Exposure

Credit Life insurance involves a myriad of issues ranging from underwriting concerns to claims administration. The focus of this paper is limited to the computation of the premium value for single premium credit life insurance. We will explore the computation of a premium and what makes that value commensurate with the coverage being provided.

Credit Life

Computing a proper credit life premium revolves around the concept of protecting the total "exposure" during the term of the life coverage. The concept of "month dollars of coverage" is explained in detail later in this report, but, simply put, a month dollar is one dollar at risk for one month. To compute the proper premium, an actuarially sound monthly rate is multiplied by the month dollars of coverage, or exposure. This equates the premium charge to the coverage provided.

Historically, credit insurance premiums were computed based on monthly intervals. However, the types of financing available today are varied and range from weekly repayment schedules to customized "farm plans" and "teacher plans" with such features as scheduled skipped payment cycles and repayment schedules that are multiples of a month (i.e. quarterly, semi-annual, annual).

In order to accommodate the flexibility of today's financing and provide corresponding credit life coverage, the concept of "month dollars" becomes "periodic dollars" and the traditional "monthly rate" becomes a "periodic rate". The key computational concept is to keep the units consistent with the scheduled repayment periods.

The two basic types of reducing life coverage are uniformly decreasing where the death benefit decreases in equal increments and non-uniformly decreasing where the death benefit decreases in unequal increments. Uniformly decreasing usually takes the form of gross payoff insurance and the death benefit decreases by the amount of a monthly payment. However, uniformly decreasing is used on occasion in net payoff situations.

Non-uniformly decreasing coverage most often takes the form of decreasing a death benefit balance according to the allocation of the payment to interest and then principal. When the allocation to interest is determined by applying a simple interest rate to an outstanding balance, we reference it as an "actuarial" amortization of the balance. While actuarial is by far the most common method to determine decreasing balances, historically non-uniform balances have also been determined by allocation methods such as the sum of the digits (Rule of 78ths).

Credit Insurance
Important Terms & Definitions

Death Benefit
The dollar amount to be paid at any point in time should the insured die while the credit contract is still outstanding and the credit life coverage still in force.

Original Amount of Insurance (OAI)
The dollar amount initially covered at the inception of the credit contract. This can also be termed the "Original Death Benefit".

Gross Payoff Coverage (GPO)
Credit life coverage where, when the coverage is full term, the OAI is the disclosed total of payments. The death benefit decreases uniformly by the amount of the periodic payment due. The death benefit at any point in time includes the scheduled outstanding principal amount **plus** scheduled unearned interest.

Net Payoff Coverage (NPO)
In its simplest form it is "any coverage that is not gross payoff coverage". More specifically, it is any coverage that does not insure the entire amount of unearned accrued interest or finance charge. The most basic form of net payoff coverage insures the scheduled balances of the amount financed as they are amortized on an actuarial basis.

Other forms of NPO coverage insure the outstanding balances of the amount financed plus varying amounts of scheduled interest and/or payments. The presumed amortization method to determine the scheduled insured balances (death benefit) may also change to, for example, Sum of the Digits (Rule of 78ths) or Pro-rata.

Month Dollars of Coverage (MDOC)
The month dollars of coverage represent the total dollar amount at risk throughout the insurance term of the credit contract. MDOC can also be viewed as the sum of the balances of scheduled death benefit. A "month dollar" is $1 at risk for one month. For transactions that are non-monthly (i.e. weekly, bi-weekly, quarterly etc.), the concept of "periodic dollars" is employed. For a weekly transaction the "week dollars of coverage" would illustrate the total exposure.

If the coverage is basic net payoff life, MDOC is equal to the sum of the scheduled outstanding balances of the amount financed.

If the coverage is gross payoff, MDOC is equal to the sum of the scheduled outstanding total of payments balances.

Insurance Term

The number of months the insurance coverage is in force. In some circumstances, the term of insurance may be less than the term of the credit transaction. In that instance, coverage is often called "**truncated term"** as in truncated life coverage.

Amount Financed

In this report, amount financed is used as defined in Section 226.18(b) of Regulation Z; "the amount of credit provided to you or on your behalf". It is assumed for the purpose of illustration that no "other charges" are included that would be excluded from the amount financed and included in the finance charge.

If such "other charges" were included in a transaction, and the financed fee is an insurable item, substitute "principal" (the amount interest is computed on) for "amount financed" in the exhibits.

Credit Life Rates

The basis for understanding premiums

Pro-rates (aka "Linear Rates")

The pro-rate is the traditional rate per $100 per year of coverage used in the industry. A typical rate would be $.50/$100/yr which represents the annual rate (rate at 12 months) and multiples would be computed according to the linear nature of the rate structure, (i.e. 24 months would be $1.00/$100, 36 months $1.50/$100, 48 months $2.00/$100 etc.).

The life rate per $100 of coverage is called a **term rate** and can be determined by multiplying the annual rate by N/12 where N is equal to the number of months of coverage. The 37 month term rate for $.50/$100/yr would be the following:

$.50 x 37/12 = $1.54166666 per $100 of coverage at 37 months

The above 37 month rate example illustrates the rounding dilemma that faces programmers of software and other quoting tools in computing credit life premiums. What is the correct rate to use?

This rate structure is sometimes referred to as a "single premium rate". However, such a label is inaccurate and leads to confusion since the type of rate structure has no bearing on whether the resulting premium value is a single premium or outstanding balance product.

Uniform Monthly Rate (UMR)

The uniform monthly rate is generally expressed as a value per month per $1000 of coverage. The State of Ohio, for example, has a UMR of $.769/$1000/mo as the published prima facie rate. The UMR is a constant value and the "rate" is $.769/$1000/mo regardless of the term of the coverage.

These rates are often referred to as "monthly outstanding balance" or "M.O.B." rates. Once again, this widely used label contributes to industry confusion since the UMR is used to compute net payoff single premium values. In fact, the issue is not limited to net payoff coverage. Gross payoff premiums are computed in Ohio for terms up to 60 months using a UMR, or "M.O.B." rate. The "M.O.B." label often leads to the mistaken perception that monthly rates are used exclusively for outstanding balance non-financed premiums. That is not the case.

Credit life rates are generally displayed as rate tables showing term rates per $100 of coverage. In states where the underlying prima facie rate is a rate per month per $1000 of coverage, the UMR is the basis for displayed "term rates". The conversion process is detailed later in this report.

Effective Monthly Rate (EMR)

The Effective Monthly Rate is also expressed as a value per month per $1000 of coverage. However, this value may be either constant or variable. The EMR in its purest form is the rate derived from dividing the credit life premium by the month dollars of coverage. However, keep in mind that such a "backout" approach is a tremendous tool for analysis but is not an aid in the origination process.

The EMR can also be defined as the actuarial equivalent of a specified term rate per $100 of coverage. The conversion of a rate from a value that is per $100 of coverage to an equivalent monthly rate is necessary when the coverage decreases in a non-uniform fashion.

When converting a rate per $100 per year to an actuarially equivalent EMR, the value of the EMR will change with each term. Understanding the relationship between the different rate types is a key to understanding the difference between gross payoff and net payoff coverage.

Conversion Techniques for Credit Life Rates

1) TO FIND A TERM RATE PER $100 OF COVERAGE

If the starting point is a pro-rate (per $100 per year): **Rate per $100 per year x (N/12)**

Example: $.65/$100/yr = $.65/$100 x (60/12) = $3.25/$100 @ 60 months

If the starting point is a rate per month per $1000 of coverage (UMR): **EMR x [N+1/20]**

Example: $.769/$1000/mo = $.769/$1000 x (61/20) = $2.34545/$100 @ 60 months

2) TO FIND A MONTHLY RATE PER $1000 OF COVERAGE (EMR)

To find the EMR: **Term Rate per $100 x [2/(N+1)] x 10**

Example: $2.35/$100 = $2.35/$100 x (2/61) x 10 = .770491/$1000/mo*

*Note that the $2.35 value is the rounded $2.34545 derived from $.769/$1000/mo. The rounded term rate produces a larger EMR. It is evident that rounding is an important issue to reconcile in doing credit insurance computations.

Gross Payoff Life Coverage

The Traditional Standard

Gross Payoff Credit Life Coverage (GPO) has long been the standard in the industry for computing credit life premiums. Years ago the vast majority of consumer credit contracts were pre-computed. The consumer contracted to repay the total of payments. Since that was the extent of the creditor's exposure, GPO covered the exposure. If the consumer paid the contract off early, a refund of interest and insurance premiums was computed.

GPO is easy from the sense that it usually combines a linear rate structure and a coverage that decreases in a uniform fashion. This allows for a simple "shortcut" in computing the premium by simply multiplying the term rate by the total of payments. In actuality, the premium is derived in the same manner as all other credit life computations by finding the actuarial equivalent monthly (or periodic) rate and multiplying that value by the month dollars (or periodic) of coverage.

To illustrate we will use a simple example of 12 payments of $100 with single credit life included at a rate of $.65/$100/yr. The premium is computed as follows:

Gross Coverage Example

(Death Benefit) TOP Balance		**Monthly Rate/$1000**	**Earned Premium**	**Payment Amount**
$1200.00	**x**	**.001**	**$1.20**	**$100**
$1100.00	**x**	**.001**	**$1.10**	**$100**
$1000.00	**x**	**.001**	**$1.00**	**$100**
$ 900.00	**x**	**.001**	**$ .90**	**$100**
$ 800.00	**x**	**.001**	**$ .80**	**$100**
$ 700.00	**x**	**.001**	**$ .70**	**$100**
$ 600.00	**x**	**.001**	**$ .60**	**$100**
$ 500.00	**x**	**.001**	**$ .50**	**$100**
$ 400.00	**x**	**.001**	**$ .40**	**$100**
$ 300.00	**x**	**.001**	**$ .30**	**$100**
$ 200.00	**x**	**.001**	**$ .20**	**$100**
$ 100.00	**x**	**.001**	**$ .10**	**$100**
$7800.00			**$7.80**	

Month Dollars Of Coverage — **Premium Amount**

Traditional Gross Calculation = .0065 x $1200 = $7.80

$1.00/$1000/mo is actuarial equivalent of $.65/$100/yr = .65 x (2/13) x 10 = $1.00

Net Payoff Life Coverage

NPO (02) - Amount Financed
Actuarial Amortization

Starting in the early 1980's, more and more consumer credit transactions were being originated as interest bearing rather than pre-computed contracts. New advances in technology that allowed originating and processing systems to easily compute daily interest played a big part in the predominance of what are frequently called "simple interest" contracts. (*We have always disliked that label since pre-computed transactions can employ a simple interest rate to arrive at the amount of pre-computed interest and thus inadvertently leave the impression that all pre-computed transactions employ add-on interest. But…that is another topic for another report at another time*).

With more interest bearing contracts being written, the focus of credit life insurance shifted to insuring the amount financed and not insuring unearned interest and/or finance charge. Carleton's NPO (02) represents the most basic of net payoff life coverage plans. The NPO methods are numbered in our library and currently stop at NPO (47).

NPO (02) assumes the original death benefit is the amount financed. The death benefit declines according to actuarial amortization at the stated interest rate. Unlike GPO coverage, the death benefit declines non-uniformly due to the allocation of the scheduled payment between interest and principal. However, the concept of premium computation is the same. The appropriate EMR is multiplied by the month dollars of coverage to arrive at the premium.

Using the same example that illustrated GPO coverage, the NPO (02) premium can be illustrated as follows:

Net Payoff Coverage Example

(Death Benefit) Amt. Fin. Balance		**Monthly Rate/$1000**	**Earned Premium***	**Earned Interest**
$1,000.00	**x**	**.001**	**$1.00**	**$29.23**
$ 929.23	**x**	**.001**	**$ .93**	**$27.16**
$ 856.39	**x**	**.001**	**$ .86**	**$25.04**
$ 781.42	**x**	**.001**	**$ .78**	**$22.84**
$ 704.26	**x**	**.001**	**$ .70**	**$20.59**
$ 624.84	**x**	**.001**	**$ .62**	**$18.27**
$ 543.11	**x**	**.001**	**$ .54**	**$15.88**
$ 458.98	**x**	**.001**	**$ .46**	**$13.42**
$ 372.40	**x**	**.001**	**$ .37**	**$10.89**
$ 283.28	**x**	**.001**	**$ .28**	**$ 8.28**
$ 191.56	**x**	**.001**	**$ .19**	**$ 5.60**
$ 97.16	**x**	**.001**	**$ .10**	**$ 2.84**
$6842.63			**$6.84**	
Month Dollars Of Coverage			**Premium Amount**	

$1.00/$1000/month is actuarial equivalent of $.65/$100/yr @ 12 months
Interest Rate = 35.0742% ***disguised precision. Full precision values shown as two place.**

Net Payoff – NPO (02) (cont'd)

The complete amortization schedule proof of the $6.84 premium is included below as Exhibit A:

Exhibit A

Effective Monthly Rate Per $1000 - $1.00
Interest Rate – 35.0742%
Monthly Payment - $100
Amount Financed - $1,000.00
OAI - $1,000.00
Premium - $6.84

The month dollars of coverage represents the sum of the scheduled balances of the amount financed. By applying the monthly rate to the scheduled outstanding monthly balances, the premium charge is actuarially sound and commensurate with the exposure and amount being covered.

In its purest form, NPO (02) covers the scheduled outstanding balances but no other potential exposure. For instance, NPO (02) assumes the death benefit declines on the date of the scheduled payment due and does not recognize the interest that is accruing at the completion of the first 24 hour period following the last scheduled payment date. To combat this potential hazard, some carriers insure the principal balances plus some portion of the unearned interest. Two popular methods are NPO (04) and NPO (35).

Net Payoff Life Coverage

NPO (04) – Amount Financed plus Current Month Interest
Actuarial Amortization

The original death benefit under the NPO (04) method is the amount financed plus the current month's scheduled accrued interest. The death benefit declines according to actuarial amortization of the balance of the amount financed.

Exhibit B

Effective Monthly Rate Per $1000 - $1.00
Interest Rate – 35.0742%
Monthly Payment - $100
Amount Financed - $1,000.00
OAI - $1,029.23
Premium - $7.04

Net Payoff Life Coverage

NPO (35) – Amount Financed plus ½ Current Month Interest
Actuarial Amortization

The original death benefit under the NPO (35) method is the amount financed plus one-half the current month's scheduled accrued interest. The death benefit declines according to actuarial amortization of the balance of the amount financed.

Exhibit B1

Effective Monthly Rate Per $1000 - $1.00
Interest Rate – 35.0742%
Monthly Payment - $100
Amount Financed - $1,000.00
OAI - $1,014.61
Premium - $6.94

This method has gained much support because it is a reasonable compromise between the traditional NPO (02) that covers only the principal balance and other NPO's that cover a whole month's, or multiple thereof, interest. NPO (35) makes the general assumption that while debtors cannot be expected to die on scheduled due dates, on average half will die in the first half of a month and the other half in the second half of the month. This method is an equitable way to provide coverage for the added exposure of accrued interest between scheduled due dates.

Net Payoff Life Coverage

NPO (06) – Amount Financed
Pro-rata Amortization

The original death benefit under the NPO (06) method is the amount financed. However, the death benefit declines assuming pro-rata amortization of the balance of the amount financed. This method provides for an easy premium computation. Since the premium is computed on the original death benefit, the premium is the product of the term rate per $100 and the amount financed. In this case, $.65/$100 x $1,000 = $6.50.

Exhibit C

Effective Monthly Rate Per $1000 - $1.00
Interest Rate – 35.0742%
Monthly Payment - $100
Amount Financed - $1,000.00
OAI - $1,000.00
Premium - $6.50

Payoff = Death Benefit

Notice the disparity between the death benefit and the scheduled principal balance in the columns following the first interval. At any point in time the death benefit will not pay off the entire scheduled balance. The presumed pro-rata death benefit makes it easy to compute the premium, but does not provide for complete retirement of the debt which is amortized on an actuarial basis.

Since nearly all transactions are processed on an actuarial basis, with the exceptions probably being creditors still keeping books on a Rule of 78's basis, the NPO (06) method does not represent a true "net payoff" situation.

Net Payoff Life Coverage

NPO (07) – Amount Financed

Sum of the Digits (Rule of 78) Amortization

The original death benefit under the NPO (07) method is the amount financed. . The death benefit declines according to sum of the digits amortization of the balance of the amount financed.

Exhibit D

Effective Monthly Rate Per $1000 - $1.00
Interest Rate – Sum of the Digits
Monthly Payment - $100
Amount Financed - $1,000.00
OAI - $1,000.00
Premium - $6.87

The amortization schedule allocates interest by the sum of the digits method. This would represent a traditional pre-computed transaction, perhaps utilizing an add-on interest rate, where accounts are posted “according to the Rule of 78’s”. In this case, the premium represents a proper “ net payoff” since the scheduled death benefit is identical to the scheduled principal balance.

Net Payoff Coverage Including Payment Amounts

The "Net Plus" Methodology

The late 1980's saw the introduction of a new net payoff methodology that incorporated monthly payment amounts into the Original Amount of Insurance. Originally incorporated into statutory language in Minnesota for transactions over 62 months, the idea of including monthly payments in the death benefit spread to North Carolina in approximately 1993 and was instituted across the board (all transaction terms).

The premise is that creditors, in particular auto dealers, have exposure due to delinquent payments that could be outstanding upon the death of the debtor. Including "three scheduled monthly payments, or the equivalent thereof" in the description of the maximum death benefit allows for premiums to be computed on a larger death benefit amount and, thus, a larger premium to compensate for the exposure of delinquent payments.

When a scheduled payment becomes delinquent the interest is not collected but the principal also becomes delinquent. This delinquent principal being carried forward is what makes the scheduled death benefit in traditional net payoff coverage plans inadequate to completely pay off the transaction if the debtor dies.

Insuring accrued interest has traditionally "softened the blow" of dealing with delinquent payments, but if the mission is to try and safeguard creditors against more than a single delinquency, traditional methods may not do the deed.

One of the caveats of "net plus" coverage is that in short term transactions the death benefit can exceed the total of payments and, thus, gross payoff coverage. Like the original Minnesota statute, recent regulations in South Carolina have allowed for a death benefit with an amount equal to six monthly payments but only on transaction over 60 months in duration. However, that condition does not apply in North Carolina (3 payments) and Alabama (1 payment).

The other issue to be recognized with "net plus" coverage is the need for a second beneficiary provision in the policy. Since a consumer who pays on time will have "extra" death benefit, it is important that a provision is included to reconcile the difference between the scheduled death benefit and the potential actual pay-out amount.

Net Payoff Life Coverage

Amount Financed Plus Three Payments
NPO (44) "Net + 3"
Actuarial Amortization

The original death benefit under the NPO (44) method is the amount financed plus three times the amount of the regularly scheduled monthly payment. The death benefit declines according to actuarial amortization of the balance of the amount financed. A second beneficiary column is necessary since the scheduled death benefit exceeds the scheduled net payoff balance at any point in time.

Exhibit E

Effective Monthly Rate Per $1000 - $1.00
Interest Rate –35.0742%
Monthly Payment - $100
Amount Financed - $1,000.00
OAI - $1,300.00
Premium - $10.45

This display is a bit different than the other exhibits. It allows the comparison of NPO (44) to Gross, NPO (02), and NPO (04) by comparing the designated columns that would constitute death benefit values for those plans. Note that the original death benefit also exceeds the original total of payments. One of the criticisms of this methodology is that the amount insured can be greater than the potential amount owed. That violates maximum amount provisions in many state statutes. (keep in mind that the short term nature of this transaction highlights that phenomenon.)

Net Payoff Life Coverage

Amount Financed Plus Three Delinquent Payments
Proposed NPO (48) "Net + 3 Delq Pmts"
Actuarial Amortization

This method is a proposed net payoff method that has yet to be implemented in other than case studies. **This approach provides for protection against delinquent payments while not allowing the OAI to exceed the total of payments.** The designated 2nd beneficiary amount remains constant once it reaches a value equal to the three monthly payments.

Exhibit F

Effective Monthly Rate Per $1000 - $1.00
Interest Rate –35.0742%
Monthly Payment - $100
Amount Financed - $1,000.00
OAI - $1,104.26
Premium - $10.19

The OAI of $1,104.26 is the **potential** net payoff **if the first three monthly payments become delinquent.** The coverage remains the same through the fourth month and then declines in accordance with common statutory language to the effect that the death benefit at any point in time is "the scheduled amount of unpaid indebtedness , less any unearned interest or finance charges, plus an amount equal to the three monthly installments, or the equivalent thereof". This approach allows for an OAI that does not exceed the original total of payments.

Summary of NPO Methods in X0575

NPO (02) The original amount of insurance (OAI) is the amount financed. The death benefit after one month is the scheduled remaining balance of the amount financed. The scheduled balance of the amount financed decreases by actuarial amortization.

NPO (04) The OAI is the amount financed plus the scheduled current month's interest. The death benefit after one month is the scheduled remaining balance of the amount financed plus the current month's interest. The scheduled balance of the amount financed decreases by actuarial amortization.

NPO (06) The OAI is the amount financed. The death benefit after one month is the scheduled remaining balance of the amount financed. The scheduled balance of the death benefit decreases by pro-rata amortization.

NPO (07) The OAI is the amount financed. The death benefit after one month is the scheduled remaining balance of the amount financed. The scheduled balance of the amount financed decreases by sum of the digits (Rule of 78's) amortization.

NPO (35) The OAI is the amount financed plus one-half of the current month's interest. The death benefit after one month is the scheduled remaining balance of the amount financed plus one-half of the current month's interest. The scheduled balance of the amount financed decreases by actuarial amortization.

NPO (44) The OAI is the amount financed plus three times the regular monthly payment amount. The death benefit after one month is the scheduled remaining balance of the amount financed plus three times the regular payment amount. The scheduled balance of the amount financed decreases by actuarial amortization.

NPO (48) The OAI is the amount financed plus the current month's interest plus the next three month's scheduled interest. The death benefit continues to be that maximum amount through month four when the death benefit begins to decline by the amount of the scheduled payment allocated to the amount financed (principal) each month. The 2nd beneficiary account continues at 3 times the monthly payment amount once it reaches that value.

Note*: "amount financed" is used in its most basic sense in that it is assumed no "other charges" are included that accrue interest and are part of the finance charge. If such "other charges" are included in a transaction, substitute "principal" (amount financed plus fee) for "amount financed".*

Summary Table of Premium Computations

$1,000 Amount Financed
12 Monthly Payments
35.074% Simple Interest Rate

NPO No.	Exhibit	OAI	Premium
02	A	$1,000.00	$6.84
04	B	$1,029.23	$7.04
35	B1	$1,014.61	$6.94
06	C	$1,000.00	$6.50
07	D	$1,000.00	$6.87
44	E	$1,300.00	$10.44
48	F	$1,104.26	$10.19

For the sake of simplicity we limited our exhibits to 12 month, $1,000 amount financed examples. The following tables display premium values for more "real world" representative sets of data.

$10,000 Amount Financed
60 Monthly Payments
12.00% Simple Interest Rate

NPO No.	Exhibit	OAI	Premium
02	NA	$10,000.00	$334.68
04	NA	$10,100.00	$338.02
35	NA	$10,050.00	$336.35
06	NA	$10,000.00	$305.00
07	NA	$10,000.00	$337.91
44	NA	$10,667.32	$374.72
48	NA	$10,392.40	$367.23

Summary and Conclusions

The issue of proper "net payoff" premium calculations can get rather complicated depending upon the intent of the coverage and the type of credit transaction being covered. This analysis has stayed within rather generic guidelines by looking only at monthly transactions and only at equal installment payment transactions.

Gross Payoff premium calculations tend to be more straight forward but can get interesting when working with issues such as seasonal payment plans and limited coverage terms and amounts.

However, the concept of computing a premium that is commensurate with the exposure being covered remains the same; month dollars of coverage multiplied by an actuarially sound monthly rate per $1000 of coverage. While there may be many "shortcuts" to arrive at the same premium, this concept is the core of all proper premium calculations.

We have not even begun to scratch the surface dealing with more complex situations such as term and dollar amount limitations and payment plans other than monthly.

This paper is the first of a multi-part series that will look at each of those issues in detail and serve as the basic framework from which to understand premium computations.

Notes