1988 CASUALTY LOSS RESERVE SEMINAR

4A-2: SALVAGE AND SUBROGATION

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(Slide 1 - Opening Title)

Michael McCarter:

Good afternoon. My name is Mike McCarter. I'm Chief Financial Officer and Actuary of the Harleysville Insurance Companies. This is Mini-Session 4A-2, "Salvage and Subrogation". There are handouts available at the entrance to the room which include copies of my slide material. I've been asked to let you know that the views I express are my own and are not necessarily those of the American Academy of Actuaries, the Casualty Actuarial Society, or the Harleysville Insurance Companies. In addition, although I will be talking about taxes to some extent, you should consult with your tax advisers on any tax questions. We will have time for questions after my presentation.

Why are we all here today?

This is the first time the Casualty Loss Reserve Seminar has offered a presentation on Salvage and Subrogation. Actually, other sessions have probably mentioned salvage and subrogation as a potential distorter of loss development patterns. Generally accepted accounting principles have required the booking of salvage and subrogation recoverable for years. This has not changed. Statutory accounting for salvage and subrogation which generally disallows such a recoverable has not changed.

One significant factor has changed. As a result of the Tax Reform Act of 1986, the Internal Revenue Service has issued Temporary and Proposed Regulations for the 1988 tax year requiring recognition of salvage and subrogation recoverable in the determination of taxable income. On that pleasant note, we begin.

(Slide 2 - Outline Talk)

Today, I want to do three things:

I want to help you better understand the historical factors that frame the current debate between the IRS and the insurance industry on the subject of salvage and subrogation recoverable.

I want to give you some feeling for the financial impact of the salvage and subrogation recoverable estimate as well as for some of the key factors that you should bear in mind as you make your estimates.

Finally, I will review a method of estimating salvage and subrogation recoverable and discuss some other methods that you may wish to consider.

As you can tell from my outline, I'm going to be talking about what we want to do, why we're doing it, and what problems we may encounter. I'm not going to talk a great deal about the detailed calculations of the estimation process. Once you have the framework set up, the detailed calculations are very similar to those of the other estimation problems being discussed at the Casualty Loss Reserve Seminar.

First, here are some definitions to clarify what we are talking about.

(Slide 3 - Definitions)

Salvage is the sale of damaged goods for which the insured has been indemnified by the insurance company. The most typical example of salvage is when the insurance company sells the remains of a car to which it has taken title after indemnifying the insured for the total pre-crash value of the car.

Subrogation is the collection by the insurance company of the amount of a paid claim from a negligent third party or his insurer. Although subrogation is a liability concept, you may well find that subrogation actually outweighs salvage even in your company's auto physical damage experience. That's because to speed claim settlement, your company has paid for the physical damage of your not-at-fault insureds and then collected subrogation from the insurance companies of the at-fault drivers.

Salvage Recoverable is the estimated salvage and subrogation (net of expenses) to be recovered on all claims incurred to date, whether reported or unreported. For the rest of my talk, when I speak of salvage or salvage recoverable, you should understand me to be including subrogation unless I specifically say otherwise. Also, I'd like to underline that our salvage recoverable estimate is net of the expenses incurred in collecting the salvage.

So, how much money are we talking about here?

(Slide 4 - Insurance Industry Impact)

The 1988 Best's Aggregates and Averages reported almost $3 billion of salvage recovered in Schedule O lines which is over 8% of paid losses for those lines. If we drop the A & H, Reinsurance, and Write-in lines, salvage collected is over 11% of paid losses in the remaining Schedule O lines.

86% of the salvage collected was in auto physical damage, both personal and commercial. 6% was in surety. Schedule P doesn't currently break out salvage (it will soon), but it is generally agreed that Workers' Compensation and Package Property are the lines with significant salvage. One estimate is that subrogation alone amounts to 2% of paid losses for those two lines.

Based on the Schedule O data, one rough estimate is that the industry's auto physical damage salvage recoverable should be about 50% of its outstanding losses. If that's true, then the 1987 change in auto physical damage loss reserves would have generated enough additional salvage recoverable to add $50 million to the industry's federal income tax bill at a 34% tax rate. In addition, the six year phase-in of the 12/31/87 initial salvage recoverable balance will cost another $100 million per year. The total of $150 million per year is 1/2 point of 1987 auto physical damage earned premium. We would probably need almost a point of rate increase to break even on profitability after tax. This rate increase is just to cover the additional tax due to recognizing salvage recoverable, not to recognize other impacts of the 1986 Tax Reform Act.

How did we get to where we are today?

(Slide 5 - History)

In the dawn of time, regulators were concerned that insurance companies would understate reserves by anticipating salvage recoverables, so Schedule O was originally designed to allow separate tracking of salvage on claims closed as of the prior year-end. It's a little hard for me to imagine salvage recoverable as the big reserve adequacy concern. However, that accounting treatment established the separate treatment of salvage on closed claims from other salvage. The IRS attempted to force companies to consider salvage recoverable in determining taxable income, but the Continental and Allstate decisions in the 1970's confirmed that Annual Statement accounting controlled tax accounting. Since Illinois and Maryland and possibly other states had regulations prohibiting recognition of salvage recoverables, the courts held that the IRS could not force such recognition.

In 1976 and 1978 changes were made to Schedule O that gave it the accident year orientation it has today and then brought the salvage treatment in line as well. The insurance industry was no longer required to report salvage on paid claims separately, and many companies scrapped their ability to do so, but the distinction did not die for the IRS.

The Tax Reform Act of 1986 considerably weakened the Annual Statement as a controlling factor for tax accounting. The Treasury was directed to study and issue regulations on the treatment of salvage. At the beginning of 1988 the Treasury issued Temporary and Proposed regulations.

The 1966 Industry Audit Guide for P & C Companies was silent on recognition of salvage recoverables under GAAP. The AICPA's Statement of Position 78-6 issued in 1978 required recognition of salvage recoverable. Since statutory and tax accounting did not recognize salvage recoverable, the GAAP treatment accelerated the recognition of income and thus contributed to a deferred tax liability on the GAAP balance sheet.

Those of you reporting on a GAAP basis must implement Statement of Financial Accounting Standards #96 by 1989 at the latest.

(Subsequent to the talk, the required implementation date was moved to 1990). This statement changed the calculation of deferred tax assets or liabilities and has become extremely controversial because of the interactions between it and the Tax Reform Act of 1986 as that act impacts insurance company taxation. Booking salvage recoverable for tax accounting will eliminate a timing difference that in the past tended to generate deferred tax liabilities. Actually, the timing difference will not be completely eliminated if the tax salvage recoverable is discounted.

I need to say a little more about salvage and the Tax Reform Act of 1986.

<u>(Slide 6 - Tax Reform Act of 1986)</u>

The first thing to note is that the IRS methodology for calculating discount factors for loss reserves uses payment patterns net of salvage for both Schedule O and Schedule P. Thus, to be consistent, the salvage recoverable estimate should be netted against the loss and loss expense reserve by line of business by accident year and the net reserve discounted. Equivalently, the salvage recoverable should be discounted for tax purposes using the existing discount factors.

The Temporary and Proposed Regulations concerning salvage issued at the beginning of 1988 are being disputed by the insurance industry as exceeding the Treasury's authority under law.

The Treasury proposes that the change be treated as a change in accounting. What that means in English is that we would not get a Fresh Start benefit on the 12/31/87 balance. For most companies that balance would be brought into taxable income evenly over the next 6 years. The associated GAAP deferred tax liability would come down over the same period. Adding salvage recoverable to taxable income would tend to reduce the book-tax differential preference item and so slightly reduce the Alternative Minimum tax. This would be a small consolation.

The Temporary and Proposed Regulations discuss separately salvage recoverable attributable to paid losses from that attributable to unpaid losses, and cite different authorities for the inclusion of each into taxable income. Some have concluded that this means that our salvage recoverable estimate will need to be in two pieces with the salvage recoverable attributable to paid losses presumably not subject to discount. If that is the correct interpretation, we will have some data problems that I will discuss shortly.

Others, including a representative of the Treasury Department who spoke at last week's National Association of Independent Insurer's Federal Income Tax seminar, feel that one salvage recoverable estimate will be required and that the Paid vs. Unpaid language is left over from prior history.

The Temporary and Proposed Regulations do not settle the question of exactly how the salvage recoverable will be discounted. For discussion, I will assume that the logically consistent method of discounting the entire salvage recoverable using the existing discount factors will prevail. By the way, you are probably making estimated 1988 tax payments using your GAAP salvage recoverable as an estimate.

Now, what must we consider as we set up the framework for our estimation of salvage recoverable?

(Slide 7 - Estimating Recoverable)

We will need to make estimates by line of business and accident year in order to apply the IRS discount factors.

Remember that we're estimating an asset, not a liability. If your estimate of salvage recoverable is too high, your loss reserves net of salvage recoverable will develop unfavorably. From a solvency point of view, a high estimate is not conservative as it is for loss reserves. The reserve development schedules required in the 10-K for SEC Reporting are shown on a statutory basis by most companies. If the salvage recoverable estimates by accident year are now carefully done, it will be possible to do a true reserve development on a GAAP basis.

Do you have the data you need?

(Slide 8 - Estimating Recoverable - Data Considerations)

If salvage recoverable is netted against loss reserves for tax purposes, then the following data considerations will not be significant for tax purposes. The most common potential problem will be incorrect or inconsistent classification of salvage or salvage expense as a loss or loss expense. If all of these have the same tax treatment, re-classification will not matter.

Negative paid losses, such as Second Injury Fund recoveries or recoveries from other state funds, may be classified as salvage, causing you to over-estimate salvage recoverables.

Salvage expenses are expenditures in the course of obtaining salvage or subrogation. Some of your salvage is obtained on a commission basis, so the salvage you record is already net of salvage expense. Your direct payments of salvage expense may be recorded as (and are sometimes difficult to distinguish from) losses or claim expenses. If salvage expense is recorded as something else, the net salvage will be overstated.

Collected salvage on losses that have hit your excess treaties will go to the reinsurer. Increased salvage will be offset by reduced ceded losses.

Your available reports may be those needed for Schedule O and those needed by your Claims Departments Salvage Unit. As these units are often measured by the amount of gross salvage they bring in, there may be little information available on salvage expense. Again, this may all be meaningless for tax purposes, but may cost you tax dollars if the artificial distinction between salvage on closed claims and other salvage is maintained for tax purposes.

What sorts of estimation techniques should be considered?

(Slide 9 - Estimating Recoverable - Principles)

Formally, estimating salvage recoverable is the same problem as estimating allocated claim expense reserves. Salvage collected should receive the same statistical coding as the loss it is associated with. Therefore, we should have accident year and line of business information. Salvage develops later than loss payments, as does allocated claim expense, so that the ratio of incremental salvage collected to incremental losses paid tends to rise in each subsequent development period of an accident period. No case estimates are usually available. Salvage overall has a shorter tail than allocated claim expense because it is not much associated with General Liability. Therefore, almost any technique that works for allocated claim expense reserves can be considered for salvage recoverable. However, because of the differing patterns involved, the techniques you prefer for salvage recoverable may not be the same as those you prefer for allocated claim expenses.

And now, the moment you've been waiting for - the birth of a new standard actuarial methodology (if only because of a prior vacuum on the subject).

(Slide 10 - Estimating Recoverable - Step 1)

The approach that has worked well for us is to estimate salvage recoverable using projections based on salvage collected to date. Of course, to work well, this method needs enough volume of salvage to allow a fairly stable pattern to emerge. It is straightforward and easy to explain to anyone with a familiarity with loss reserving.

The first step is to set up the salvage collected triangle. I'm showing only the bottom portion on the slide. For each accident year, we see the amount of salvage collected after 12, 24, 36, etc. development months. For Schedule O lines we've seen some development as far as seven years or longer.

The second step is to calculate the age-to-age development factors.

(Slide 11 - Estimating Recoverable - Step 2)

This is still only the bottom of the triangle. Notice that we've dropped 87 accident year and picked up 84 accident year due to the need to take ratios. These are, of course, cumulative development factors, and the two triangles I've shown you should look very familiar to you if you've gotten this far into the Casualty Loss Reserve Seminar.

So, I'm not going to show you any more numbers, but I will describe the remaining steps in the estimation procedure.

(Slide 12 - Estimating Recoverable - Steps 3-6)

Select the projected age-to-age factors based on whichever of the numerous averaging techniques seems to best fit your data. Your data will tell you how long you have significant development and thus when to take the age-to-age factor to one.

Compound the selected age-to-age factors to develop age-to-ultimate factors.

Apply the age-to-ultimate factors to the salvage collected to date to determine ultimate salvage by accident year.

Back out salvage collected to date to determine the estimated salvage recoverable.

Now we have our estimate of salvage recoverable for year end. How do we get an estimate at interim reporting periods?

(Slide 13 - Estimating Recoverable - Interim Reporting)

As you know, calendar year financial results are determined by current accident year results plus changes in estimates of prior accident years. The method I recommend has the advantage of permitting you to understand and explain your results in this useful analytic framework.

At yearend, you've just calculated ultimate salvage for each accident year by line of business. You also have calculated ultimate losses by accident year. If you haven't, don't admit it to anyone. Calculate the ratios for recent accident years of ultimate salvage to ultimate losses.

Then, based on trends and averages of these ratios, select the expected ratio of salvage to losses for the current accident year. Again, a conservative ratio given solvency considerations would be lower rather than higher. The selected ratio is then applied to current accident year losses to generate the current accident year's increase in ultimate salvage. Collected salvage can then be backed out to develop the change in salvage recoverable.

Of course, you can take the yearend ratio of salvage recoverable to outstanding losses and apply that to interim period outstanding losses to develop interim period salvage recoverable.

There are other methods of estimating Salvage Recoverable you may wish to consider.

(Slide 14 - Estimating Recoverable - Other Methods)

The "collected-to-paid" ratio approaches use the relation between salvage collected and losses paid to determine a projected relationship between salvage recoverable and losses outstanding. The calendar year approach uses calendar year salvage recovered to calendar year losses paid and applies that ratio to outstanding losses. This method will underestimate salvage recoverable for the same reasons it underestimates allocated claim expense reserves and so this method cannot be recommended.

Modifying the calendar year method by knocking out current accident year salvage collected and paid losses results in improved results, but if you're doing that you may as well use the accident year collected-to-paid approach. Here you will estimate the expected collected-to-paid ratios for each incremental development period for the accident period and combine those ratios with an expected loss payout pattern to develop a ratio of ultimate salvage to ultimate losses. This ratio can be then applied to your separately derived ultimate loss estimate. This method derives from the one I find most successful for allocated claim expense, but at this time it seems unnecessarily complex for our salvage recoverable estimation problem.

If you have losses both gross and net of salvage, you may project each using your favorite methodology and then take the difference as an estimate of salvage recoverable. For statistical reasons, however, this is a very poor method as the likely error is very large relative to the quantity you're estimating.

Another approach is to use the developed salvage against prior calendar yearends. First, use a development factor approach to take the development to ultimate and then ratio the developed estimates to an historical exposure base such as paid losses or earned premium. Select a ratio to apply to the current year's exposure base. Although this method may give reasonable estimates of total salvage recoverable, you still will have the problem of allocating salvage recoverable to accident year for tax purposes. You could use outstanding losses for the allocation base to accident year but that base would tend to allocate too much salvage to the current accident year. This method was more appropriate before the changed tax law required discounting reserves by accident year.

To conclude, I will review some considerations that apply no matter which technique you choose.

(Slide 15 - Other Considerations)

First, you may find that salvage recoverable exceeds loss reserves for certain line of business and accident year combinations. In 1987, the industry collected three times as much in salvage as it paid in losses for the second and further prior accident years in auto physical damage. Thus, we would expect many companies to have negative loss reserves net of salvage for earlier accident years in the auto physical damage line of business.

Economically, there's nothing wrong with a negative loss reserve considering salvage other than its unfamiliarity to us. However, you should consult your tax adviser as to what to do in filing a tax return if such a situation occurs.

If you are attempting to set Schedule P loss and loss expense reserves so that ultimately Schedule P development is zero, then your Schedule P reserves are already net of salvage recoverable. Don't set up salvage recoverable on top of such reserves or you'll be double counting and costing your company a lot of money. If you're talking to a state regulator about such reserves, you may wish to point out that the Schedule P minimum reserves are computed net of salvage.

Finally, regulations are still uncertain on discounting and on salvage recoverable on paid vs. unpaid claims. Talk with your tax adviser for updates. If final regulations eliminate discount on all or part of salvage recoverable, you'll want to review your salvage and salvage expense coding procedures.

Are there any questions?

QUESTION: How can we split salvage recoverable between closed and other claims if that is required?

McCARTER: If you have data that separates salvage on paid from salvage on unpaid claims, then you should use it to investigate any differential between salvage ratios on early claims versus later claims in an accident year. If, for example, later claims generate more salvage, you'll want to recognize that fact. If you have no such data, then divide your ultimate salvage by accident year in the same proportion as paid losses for the accident year bear to ultimate incurred. The paid loss proportion is the ultimate salvage on paid claims. Back out all salvage collected to date on the accident year from the estimated ultimate salvage on paid claims to get the still recoverable on paid claims. The remaining ultimate salvage will be salvage recoverable on unpaid claims.

QUESTION: You used auto physical damage in your examples. My company writes a lot of Bonding business. How should we approach the salvage recoverable estimation problem?

McCARTER: I have spent a little time looking at bond development patterns for another company and I wish you luck in estimating Bonding salvage recoverable. You're going to have a problem. The development patterns are not going to be very stable. Salvage is a very significant item for bonding, especially for surety. I would think you're going to have to use a fairly long development period. The more data you can get, the better. I would try an accident year development approach. You may find that most all the losses you pay one year, you're collecting salvage on the next year. After all, they always say that Bonding is not really insurance because any losses should be covered by salvage. Thats the theory, anyway. Does anybody have any experience with that?

REPLY FROM THE AUDIENCE: (Inaudible)

McCARTER: The comment was that there is quite a long tail on salvage for surety. The tail may be as long as 10 to 15 years.

Another approach I've heard about for surety is to actually have the claims adjusters make case estimates of anticipated salvage on individual open and closed claims. Of course, to the extent these estimates become targets for collection of salvage, the natural tendency will be to bias the estimate downwards. If you have a history of both such estimates and the actual collections, it may be possible to correct for this bias if it exists.

Any other comments or questions?

Thank you very much.

SALVAGE AND SUBROGATION

Mini-Session 4A-2

1988 Casualty Loss Reserve Seminar

Hyatt Regency - Atlanta, Georgia

September 19, 1988

4:20 - 5:00 p.m.

Speaker: Michael G. McCarter
Harleysville Insurance Companies

Slide 1

Salvage and Subrogation Recoverable

- Historical Background
- Impact and Key Factors
- Estimation Techniques

Slide 2

Definitions

- Salvage: The sale of damaged goods for which the insured has been indemnified by the insurance company.
- Subrogation: Collection by the insurance company of the amount of a paid claim from a negligent third party or his insurer.
- Salvage Recoverable: Estimated salvage and subrogation (net of expenses) to be recovered on all claims incurred to date, whether reported or unreported.

Slide 3

Insurance Industry Impact

- $3.0 Billion recovered in 1987 in Schedule O lines
- Over 8% of paid losses
- Dominated by Auto Physical Damage and Surety
- Workers' Comp and Package Property

Slide 4

History

- Statutory: No Recoverable Estimates
- Tax: Continental, Allstate cases
- GAAP: A.I.C.P.A. S.O.P. 78-6
- Statutory: Schedule O Revised
- Tax: Tax Reform Act of 1986
- GAAP: S.F.A.S. 96

Slide 5

Tax Reform Act of 1986

- Loss Reserve Payment Patterns for Discount Factors
- Temporary and Proposed Regulations
- No Fresh Start - 6 Year Phase-in
- Outstanding Questions
    - Discounting
    - Paid vs. Unpaid

Slide 6

Estimating Recoverable

- Need by line of business and accident year
- Estimating an asset, not a liability
- Estimate too high implies unfavorable development

Slide 7

Estimating Recoverable: Data Considerations

- May not be significant for tax purposes
- Negative paid losses may be classified as salvage
- Salvage expenses may be classified as losses or claim expenses
- Collected salvage will benefit reinsurers under excess treaties
- Available reports

Slide 8

Estimating Recoverable: Principles

- Formally, same as allocated claim expense
- Salvage collected coded to claim
- Have accident year, line of business data
- Salvage develops later than loss payments
- No case estimates usually available
- Shorter tail than ALAE

Slide 9

Estimating Recoverable: Steps

1. Set up salvage collected triangle

	12	24	36
1985	2,844	5,835	6,362
1986	2,787	5,740	
1987	2,630		

Slide 10

Estimating Recoverable: Steps

2. Calculate age-to-age development factors

	12-24	24-36	36-48
1984	1.894	1.102	1.031
1985	2.052	1.090	
1986	2.060		

Slide 11

Estimating Recoverable: Steps

3. Select projected age-to-age factors
4. Calculate selected age-to-ultimate factors
5. Calculate ultimate salvage by accident year
6. Subtract collected to date

Slide 12

Estimating Recoverable: Interim Reporting

1. Ratio ultimate salvage to ultimate losses by accident year
2. Select expected ratio for current accident year
3. Apply selected ratio to current accident year losses
4. Back out collected in year to develop change in recoverable

Slide 13

Estimating Recoverable: Other Methods

1. "Collected-to-Paid" ratio approach

    a. Calendar year

    b. Accident Year

2. "Gross" Loss Projection minus "Net" Loss Projection

3. Calendar Year Development Approach

Slide 14

Other Considerations

- Salvage Recoverable may exceed Loss Reserve
- Loss Reserves may already be net of Salvage Recoverable. Don't double count.
- Regulations are still uncertain regarding:
    - Discount
    - Paid vs. Unpaid

Slide 15