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ACQUISITION OF IN-FORCE BLOCKS

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Many companies are putting in-force blocks of business out to bid via reinsurance. The panel will explore the rationale involved in selling these blocks, the rationale involved in other companies acquiring these blocks, and the mechanics involved in completing these transactions.

MR. CHARLES CARROLL: I am a partner with Ernst & Young, LLP in New York and I head up our insurance corporate finance group. Tom Kabele is senior vice president of reinsurance and taxes at The Guardian. Tom is one of those people who you can truly say needs no introduction. He is the founder of Guardian's reinsurance profit center and has been there since 1979.

Steve Eldridge and I were partners at one time at Ernst & Whinney. Steve has spent part of his career as an "honorary actuary," as he says, at Tillinghast. In addition, he did work at American Skandia Life Reinsurance Company as senior vice president and CFO and at American Risk Consultants Corporation (a Swiss Re subsidiary) as vice chairperson. Currently he is a practicing lawyer, CPA, and consultant.

I would first like to give an overview of what we are going to cover in this session. I will start with a market overview. Tom will then speak about the legal, regulatory, and valuation issues involved in making acquisitions of blocks of business. Steve will talk about some of the tax and legal issues that are very crucial in this area in terms of financial results. Then we will have time at the end for discussion and questions from the floor.

As I was preparing for this session, I started looking around for some data on block acquisitions. Following our Society's motto of substituting facts for appearances and demonstrations for impressions, I went looking for some facts. At least in the area of acquisitions of insurance companies, there are good data that you can derive just from reading the weekly *Best's Insurance Management Reports.* That publication is faithful in reporting all transactions involving the change in control of an insurance company. So I naturally went to that source to look for data on acquisition of blocks of business. Looking over the 1994 issues, I did come across 21 reported deals that involved blocks of business as opposed to companies. I expected that there would have been more reported deals. Of the 21 reported deals, eight of them, probably the largest single identifiable group, dealt with acquisitions of group life and health insurance blocks of business, primarily indemnity health insurance. Two involving Canadian blocks of business were being sold by

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non-Canadian companies to Canadian companies, which has been a trend that has continued recently. Three deals involved sales of blocks of business from failed companies or insolvent companies to healthy companies. One involved the sale of a reinsurance book of business, as opposed to a directly written book of business. Seven deals were difficult to categorize. Some of them were sales of individual life insurance policy blocks.

One of the frustrating things about this search, in addition to the fact that I didn't find as much activity as I would have expected, is that there are very little data reported in Best's. For example, the reports do not indicate how much the ceding commission was or even what the reserves were on these blocks of business. Given this situation, it is very difficult to tell what the real level of activity was.

Looking for other sources of data, there is a section of the annual statement in the Exhibit of Life Insurance that purportedly ought to contain only transactions involving in-force blocks of business. For those of you who want to look it up, I am referring to line 17 of the Exhibit of Life Insurance. Using a database, we calculated the total amount of insurance and number of policies reported on line 17 for all life insurance companies for 1992, 1993, and 1994. The following table shows the results:

TABLE 1
LINE 17 OF THE EXHIBIT OF LIFE INSURANCE

Year	Amount of Insurance ($ Billions)	Number of Policies
1992	84.5	1,506,000
1993	48.9	984,000
1994	25.3	1,454,000

If you look a little bit closer at these numbers, some unusual facts emerge. For example, several of the 21 deals that were reported in *Best's* were not reported on line 17 by the ceding company. Similarly, some very significant activity reported on line 17 was not reported in *Best's*. In summary, it is difficult to set a fix on what's happening in this field. However, those who practice in the field of acquisitions would say that transactions of this type have increased recently and that there is an accelerating amount of activity. I believe there is a lot of activity and the fact that we have this session on the topic of acquisition of blocks of business is one indication of that.

Another observation that many practitioners have made is that there are a greater number of buyers than sellers in the block acquisition market today. You can observe this by looking at sales, by looking at how many companies are seeking to acquire blocks of business, and looking at the activity for auctions. As I go around the industry, I encounter the question, "Do you know of any blocks of business for sale?" much more often than "Do you know somebody who wants to buy a block of business?"

A number of factors are driving this buyer mentality, and the most important one is the need to build critical mass and reduce unit costs. One of the industry's most nagging and persistent problems is efficiency and difficulty with expense control. Spreading fixed costs over a larger number of units by making large block acquisitions is a strategy that many companies are trying to adopt.

Another observation you hear from buyers is that it is significantly cheaper to buy business through a block acquisition than to actually issue it through the existing distribution system. Another way of saying this is that the rate of return on equity for block acquisitions is greater.

Another factor driving the urge to acquire is the need to put excess capital to use in a situation in which a company is unable to generate business internally fast enough to use that capital effectively. Block acquisitions are a good way to put capital to use quickly, rather than return it to shareholders or policyholders through dividends.

Another factor driving the increased focus on block acquisitions is the decline in surplus relief reinsurance. The decline of reinsurance in general has driven companies that are in the reinsurance business of any type to look at other opportunities to replace some of the lost volume. Many of the same skills and strategic needs involved in reinsurance serve the buyer well in an assumption reinsurance transaction.

A somewhat less important factor driving block acquisitions is the desire to enter a new line of business. I mentioned a number of group health insurance acquisitions occurring in 1994. This was driven, to a large extent, by Blue Cross/Blue Shield plans and health maintenance organizations that are trying to get into the indemnity health insurance business or to increase their number of covered lives.

I believe that one of the reasons that there is an oversupply of buyers is that not enough companies are pruning their existing businesses. I think the market and these companies would be better off if they took a closer look at their in-force blocks for blocks of business that do not fit and are causing excess expense problems, particularly blocks of business that in and of themselves require the maintenance of an entirely separate data processing system. If the company was able to divest itself of such a block and completely do away with the need for an entire system, the effect on the company's expense profile would be dramatic. Many companies that are under rating agency pressure and that are trying to increase their risk-based capital ratios would be well advised to allocate capital away from lines of business that are not producing significant growth or profitability. Most companies need to be very careful about the use of scarce capital. For such companies a divestiture could improve their use of capital.

Assuming that a divestiture makes sense, there a number of important steps in preparing for a sale. It is important to define approximately what's being sold. When you're selling a line of business, there may be ancillary connected functions that have to be looked at carefully to make sure that you're selling everything that the buyer needs (such as administrative systems, relationships with distribution systems that might have produced the block of business, or underwriting or claims expertise that might be needed to operate the block) to make it a successful acquisition for the buyer. If these functions are resident in your company and they're needed to make the block successful, they should be included with the sale.

To the extent possible, match what you're selling with what's in demand in the marketplace. The blocks most in demand are ordinary and universal life or interest-sensitive life insurance. To the extent possible, define what you're selling to be in accordance with that market demand. For most significant block acquisitions, the preparation of an actuarial

appraisal is a standard and well-accepted method of starting the negotiation process over price. I think a seller is well advised to commission his or her own actuarial appraisal and supply it to buyers who can then analyze it.

Next, decide on a sales strategy that is designed to drive the price to the highest level. And, lastly, make sure you're ready for due diligence. Make sure that you know at least as much about the block of business, if not more, than your acquirer does and avoid surprises. Anticipate buyers' concerns in this area with material and analysis up front.

From the point of view of those looking to be an acquirer, there are a number of things to be aware of. I think with the number of people competing for blocks of business, those seeking to make block acquisitions are well advised to take an active-versus-a-passive approach. In other words, pursue your targets rather than just review transactions that come in over the transom. Develop a strategic plan and an idea of what you're trying to achieve by acquisitions and stick to it. Have a profile of the type of business that you're looking for. Of course you can't be overly rigid in this regard, but people who start off in the acquisition mode and get frustrated after losing a few auctions will often depart from their original plan out of frustration. It is important, in the acquisition market, to be decisive and act quickly. Don't pursue transactions that don't have some reasonable probability for your company. For those that do, pursue them aggressively and act quickly. And finally, do a thorough job of due diligence. Of course, this is like mom and apple pie, but many mistakes can be avoided through a thorough due diligence on the front end.

Now Tom will talk about some of the pricing, regulatory, and legal aspects of block acquisitions.

MR. THOMAS G. KABELE: I'm going to discuss pricing blocks of business, including the actuarial aspects and some of the contractual problems.

TYPES OF CONTRACTS

The following list shows the types of contracts that are used for reinsurance or for the purchase of blocks:

1. Acquire whole company
2. Novation: "Newco" becomes directly liable to policyholders, and "Oldco" is released.
3. Delegation: "Newco" becomes liable to policyholders, but "Oldco" remains liable if "Newco" doesn't perform.
4. Beneficiary relationship: "Oldco" remains primarily liable to policyholders, but the reinsurer is also liable. This includes a cut-through endorsement or a surety agreement.
5. Indemnity reinsurance: "Oldco" remains solely liable to policyholders. The reinsurer has no privity with policyholders. The reinsurer reimburses the ceder for any excess of claims over premiums.

The subject of this talk is primarily the second contract, or a novation. Many people in the industry call this assumption reinsurance, but contract lawyers call it novation. In the *Colonial American* case, 491 U.S. 244 (1989), the counsel for the industry referred to assumption reinsurance as a novation. In some recent texts, the NAIC has referred to

assumption reinsurance as a novation. Thus, assumption reinsurance is a synonym for a novation.

However, several assumption reinsurance transactions were done without informed policyholder approval, and the courts have taken a negative viewpoint on some of these agreements. In particular, in the 10th circuit, there was the *Resolution Trust Corporation* (RTC) case, 804 F.Supp. 217 (D. KS, 1992). The court held that a novation can never be presumed without specific policyholder approval to release the original insurer. Ms. Carolyn Cobb, an attorney at the ACLI, has done some legal research on assumption reinsurance (January 1993 ACLI memo). When the selling company became insolvent, the assumption reinsurance was usually deemed to be a novation. But when the buyer became insolvent, the novation was not presumed, even if the policyholder paid premiums to the new carrier.

Ms. Cobb found one court held that the insured had agreed to a novation with the insolvent buyer: *Home Life v Arnold* 120 SW2d 1012 (Ark, 1938). The beneficiary sued to avoid the assumption reinsurance, but the novation was presumed because the insured was a major officer, director, and stockholder of the selling company, and he negotiated the reinsurance agreement.

The NAIC has responded to these problems by writing a regulation that requires detailed disclosure. It says that a novation is presumed if the policyholder pays a premium, unless he or she checks a box saying that he does not agree to the novation. It's unclear if the NAIC model will hold up in the courts if the policyholder merely forgets to check the box, because it's unconstitutional for states to impair contracts. (U.S. Constitution, Art 1. Section 10.)

Some assumption reinsurance agreements can be described as a delegation. (In contract law, you can assign rights and you can delegate duties, see Uniform Commercial Code 2-210.) Under a delegation, the new company becomes directly liable to the policyholder, but the old company remains contingently liable. So if you sell business by assumption reinsurance, which is not a novation, and the new company goes bankrupt, you may get back all the liabilities with none of the cash. This is very unpleasant.

Sometimes the guaranty funds for the new company will cover the transferred policies, but they will not cover the amounts over their limits. Other cases winding their way through the courts right now involve whether the assumption reinsurance was a novation or just a delegation.

In some cases, however, a delegation might be preferred to a novation. I believe we need new terminology; in place of assumption reinsurance we might use novation reinsurance and delegation reinsurance.

An alternative, however, to novation is acquiring the whole company. You generally do not need specific policyholder approval to acquire the whole company. You just need the approval of the insurance department. So if you don't need specific policyholder approval to acquire the whole company, why do you need policyholder approval to acquire just part of the company?

The fourth type of contract establishes a beneficiary-creditor relationship. The old company remains primarily liable, but the reinsurer is also liable. I sometimes call this contract surety reinsurance and it includes a cut-through endorsement. A few states seem to allow cut-through endorsements, but some courts do not allow them. The NAIC tried to outlaw cut-through endorsements.

The final type of contract is indemnity reinsurance, in which the old company remains primarily liable and the reinsurer has no privity (no connection with the policyholder). If the ceding company goes bankrupt, the proceeds go to the insolvent estate and not to the policy reinsured. I've heard of cases in which an insured will call up a company or an agent and say, "I want to protect myself; reinsure a portion of my insurance policy." I tell agents that indemnity reinsurance will not protect a specific policy, except to the extent that reinsurance helps protect the solvency of the ceding insurer for all policyholders.

PRICING STEPS

There are four different steps to pricing blocks of business. First, you have to choose a pricing method. Second, you have to define your model, including the model cells. Third, you verify your model by comparing modeled in-force premium, face, and policy count with the actual values. Fourth, you calculate both year-by-year values, income and balance sheet items, and the present value of future profits.

Pricing Methods

I've identified three different pricing methods: (1) prospective gross premium reserve; (2) Anderson's 1959 generalization of prospective gross premium reserve, using book values; and (3) scenario testing, using book values.

Prospective Gross Premium Reserve

The oldest method used to price blocks is described in 19th century literature and is called the prospective gross premium reserve (PGPR). Under this method the seller gives the buyer assets having a market value equal to the prospective gross premium reserve. The PGPR is the present value of future benefits less the present value of future gross premiums, where the present values are computed by using realistic assumptions.

Alternatively, the price of the block is: Price = Liability Adjustment + Asset Adjustment. The asset adjustment is the market value less the book value of assets. The liability adjustment is the historical reserve less the PGPR. The policy reserve used to be called the reserve for reinsurance. It is the reserve that you needed to pay somebody to take over the block of business. That old definition of the reserves was implied in the original paper that defined the whole life insurance plan by James Dodson, Fellow of the Royal Society, in 1756.

In place of marking all assets to market, one could use the existing assets to be transferred to the reinsurer as the starting point to determine yields. The yield rate is then used to compute the prospective gross premium reserve.

Anderson's Method

In 1959, James C.H. Anderson's important paper showed the generalization of the prospective gross premium reserve. Instead of discounting the future cash flow at the earned rate, he discounted book profits at 15%. One can view the book profits as shareholder

contributions or dividends, and the 15% is the shareholder's return on equity. The earned rates then were only about 5%. The 15% rate is 10% over the earned rate, while today the spread is 5–6%. So I guess business was more profitable in those days. But for many, many years, people were using 15% discount rates just because it was used in Anderson's paper.

Scenarios

A more recent generalization of Anderson's method is scenario testing. Again, it is based on book profits, but the earned interest rates vary by calendar year according to various scenarios. The New York set of seven scenarios is a good place to start. One can also use randomly generated scenarios for business that are quite interest-sensitive.

Sample Block

To illustrate various concepts I defined a model portfolio. Some plans were 20-pay life, some were whole life, some were paid-up additions, and one was a term plan that converted to whole life. I used two model software packages, one written by myself and one written by Tillinghast. (I reduced the dividends in the Tillinghast model by about 20% in conjunction with some other studies.) The aggregates of the models are seen in Table 2:

TABLE 2
MODEL PORTFOLIO*

Item	Tillinghast software (in 000s)	My Model (in 000s)
Reserves	$ 50,500	$ 50,578
Dividend Provision	840	991
Cash Values	50,150	50,214
Face Amount	234,000	234,291
Units of Coverage	133,000	133,691
Policy Loans	8,000	8,000

*Policy Count—Tillinghast software 22,000, my model 21,895.

To illustrate different interest environments and different interest hedging techniques, I developed two cases: in the first case, the block was purchased in early 1987 and the buyer also bought the assets at book value. The assets were marked to market at the end of 1985 and by 1987 had unrealized gains. In the second case: the block was purchased on 1/1/1995 by using the then current interest rates.

Hedging Interest Rates

One of the biggest problems in pricing a block is to hedge the earned interest rates. For example you might price a block today and the transaction might not close for three or four months. Interest rates could fall or rise. In fact, sometimes it takes longer to close, so you want to hedge for changes in interest rates.

I have three methods of handling changes in interest rates: no specific hedge—but choose a closing date; price the block using an index; and buy into a specific portfolio.

If you don't hedge for changes in rates, you should clearly specify the closing date (which should not be too far into the future) and the interest rate you will be credited in any "gap period" between the time the purchase is effective and the date the cash is received.

In the index method, you might choose a current rate when you start the negotiation process. For example, in late 1985 the rates might be 11.8% on 20-year BBBs. If rates on 20-year BBBs drop, the seller should credit the buyer with the value of the capital gain.

In the third method you buy not only the policy liabilities, but also a particular pool of assets. If interest rates rise, the assets needed to cover the liabilities (the prospective gross premium reserve) decrease, but the value of the fixed portfolio of assets also decreases. Therefore, you are in a hedge-positive, similar to buying a company. You can use the interest rates earned on the assets to compute the Anderson value or prospective gross premium reserve.

Investment Expenses and Default Ratios

Table 3 shows investment expenses and default costs. The investment expense costs are similar to those charged by some investment management firms. Various actuarial firms, such as Tillinghast, Chalke, and Milliman and Robertson, have developed ratios that are similar to these for bonds and mortgages.

TABLE 3
INVESTMENT EXPENSES AND DEFAULT COSTS

Type	Investment Expense (in bp)	Default Cost (in bp)
Treasury	10	0
AAA Bonds	10	5
AA	11	10
A	12	15
BBB	13	30
BB	25	100
B	25	300
GNMA	15	0
Policy Loans	5	1

The actuarial consultant firms have also developed some asset default ratios. For example, AAA may be 5 basis points, BBB may be 30, and junk, depending on quality, may be 100–300 points.

I listed five basis points for policy loan expenses, based on an experience study. It used to be thought that policy loans were expensive to administer; we used to see rules of thumb of 30–50 basis points. But today the process has been mechanized and the cost may be little more than the cost of writing a check, and repayment activity may be low. Many customers never bother to pay back the loans. The low cost seems reasonable; it should be as cheap as handling an active managed bond portfolio. The default ratio for policy loans is very low; in a few cases the interest on the loan might exceed the cash value before the policy is terminated, but there are devices available to prevent overborrowing.

Interest rates on bonds should be adjusted for compounding. Thus a 10% bond pays 5% every six months. The compound rate is (1.05)(1.05)-1 = 10.25%. Most investment returns are paid out the same day the funds are due, or within a day. This is in contrast to reinsurance treaties in which payments are often delayed two to three months.

Interest Rate Scenarios

The New York seven scenarios are a good place to start. Table 4 uses a "short name" for each scenario.

TABLE 4
NEW YORK SEVEN INTEREST RATE SCENARIOS*

New York Seven Scenario	Description
1. Level	Level
2. Increase (up)	Increase 50 bp for 10 years, then level
3. Cap	Increase 100 bp for 5 years, then decrease to the start
4. Pop Up	Pop up 300 bp, then level
5. Decrease (down)	Decrease 50 bp for 10 years, then level
6. Cup	Decrease 100 bp for 5 years, then increase to the start
7. Pop Down	Pop down 300 bp, then level

*Minimum is one-half starting rate.

Base Assumptions

Tables 5A and 5B show the base assumptions. The investment assumptions are listed for both 1987 (we assumed we bought into a 1985 portfolio), and 1995 (we assumed we received the then current January 1, 1995 interest rates). The mortality assumptions are reasonable for the 1985–87 period. When using scenario testing, it is necessary to choose some assumptions for the new investments (or for borrowing if the cash flow is not sufficient to cover claims, etc.). In this case we assumed new money would be invested in 10-year BBB bonds. This particular block was well immunized and we didn't need to worry too much about either positive or negative cash flow. The other assumptions involve lapse, mortality, and expenses. The percentage of premiums included 4% for commissions and 2.1% for premium tax.

TABLE 5A
BASE ASSUMPTIONS*

Percentage	Type 1/1/87 (or 1/1/95)
75%	20-year BBB at 11.88% (8.8% on 1/1/95)
15%	10-year BBB at 11.00% (8.45% on 1/1/95)
10%	5-year BBB at 10.25% (7.7% on 1/1/95)
	(Policy loan rate at 6%)

*Interest on the portfolio is subject to reductions for default and investment expense.

TABLE 5B
BASE ASSUMPTIONS

Item	Assumption
Interest on New Cash Flow	10-year BBB at time funds needed
Lapse	6–12% varying by plan, duration
Mortality	1965–70 Select and Ultimate male
Expense (% premium)	6.1%
Expense (policy)	$20 premium paying, $12 paid up

VALUES

By using the assumptions we produced various charts, showing for the base assumption, the year-by-year cash flow and the present value of book profits (or values).

Table 6 is useful for monitoring purposes after the purchase is completed. One can compare the cash flow, item by item, and potentially spot troubles. The term PVFP means present value of future profits, in this case at a 15% discount rate. The number of deaths and lapses are useful and sometimes are easier to use than the aggregate dollar amounts.

Table 7 is useful for sensitivity testing. What happens if dividends or nonvested commissions are reduced? What happens if mortality doubles?

Table 8 is useful if you are trying to estimate your return on equity or if you are trying to hedge for interest rate changes. For example, if you price the book by using a 15% return on equity in an 11% interest environment, the price is $15,975; but if rates drop to 10% before the transaction closes, the price should be reduced to $13,693. The selling company receives a capital gain to offset the reduced purchase price.

The use of a discount rate greater than the earned rate provides a security margin for the buyer. Suppose a buyer prices the block by using a 10% interest assumption and a 15% discount rate for $13,693. Suppose the buyer's investment turn sour, and it earns about 8%. Because the present value of book profits at 8% is $13,171, the buyer will come out almost even. The buyer will not enjoy the 15% return on equity; only an 8% return on equity.

Sample Pretax Values—Various Lapse Scenarios

Table 9 shows the pretax values for varying lapse scenarios. For simplicity we show only the case in which the discount rate equals the earned rate. Case 1 was the base case, and case 2 reflected the experience on one of the blocks we reinsured. Cases 3–6 reflected experience that was not quite as bad as the number 2 experience case.

TABLE 6
CASH-FLOW BASE ASSUMPTION
($ IN 000; 1/1/87 DATA)

Item	DURATION					
	1	2	3	4	5	6
Units	$133,691	$117,477	$104,045	$92,653	$83,093	$74,847
Premium	2,563	1,941	1,242	866	650	504
Interest	4,881	4,531	4,211	3,934	3,703	3,498
Death	597	531	504	488	479	473
Dividends	861	772	696	632	583	538
Surrenders	6,085	5,258	4,494	3,583	3,070	2,745
Increase in Reserve	(3,633)	(3,243)	(3,035)	(2,443)	(2,128)	(1,947)
Increase in Dividend Reserve	-103	-88	-73	-57	-53	-43
Commission	103	78	50	35	26	20
Home Office Expense	353	303	255	222	197	177
Premium tax	54	41	26	18	14	11
Net Gain	3,127	2,820	2,536	2,321	2,164	2,029
PVFP	13,693	12,621	11,694	10,912	10,228	9,598
Beginning Reserve	50,578	46,944	43,702	40,667	38,225	36,097
Beginning Cash Value	50,214	46,657	43,466	40,473	38,064	35,965
Beginning Dividend Reserve	991	888	800	727	671	618
Face	$234,291	$183,514	$159,799	$142,463	$128,556	$116,750
# Policies	21,895	19,316	17,201	15,437	14,007	12,788
# Lapses	2,511	2,049	1,700	1,368	1,157	1,005
# Deaths	69	66	64	62	61	61

TABLE 7
PRESENT VALUES—BASE ASSUMPTIONS
($000—1/1/87 DATA)

Item	10% Discount	15% Discount
Premium	$ 6,994	$ 6,091
Interest @ 10%	29,552	22,815
Death	4,209	3,112
Dividends	4,664	3,655
Surrenders	28,419	22,278
Increase in Reserve	-19,943	-15,136
Increase in Dividend Reserve	-454	-360
Commission	280	244
Home Office Expense	1,605	1,293
Premium Tax	147	128
Gain	$17,621	$13,693

TABLE 8
PRESENT VALUE OF BOOK PROFITS—BASE ASSUMPTIONS
VARIOUS DISCOUNT RATES, 1/1/87 DATA, ($000)

	Discount Rate Earned			
Investment Rate	Earned	13%	14%	15%
7%	$10,470	$ 7,505	$ 7,162	$ 6,849
8	13,171	10,018	9,554	9,130
9	15,537	12,531	11,946	11,412
10	17,621	15,044	14,338	13,693
11	19,467	17,557	16,730	15,975
12	21,111	20,070	19,122	18,256

TABLE 9
PRETAX PRESENT VALUE OF BOOK PROFITS ($ IN 000)
1/1/87 VALUATION DATE

	Various Lapse Scenarios					
Earned Rate*	1 = base	2	3	4	5	6
7%	$10,470	$2,651	$3,551	$3,753	$4,499	$ 5,429
8	**13,171**	3,272	4,441	4,685	5,629	6,802
9	15,537	3,855	5,276	5,554	6,669	8,050
10	**17,621**	4,404	6,063	6,367	7,630	9,191
11	19,467	4,923	6,805	7,132	8,524	10,239
12	21,111	5,416	7,507	7,853	9,357	11,206

*Discount rate = Earned rate

At a 10% earned rate, the value at the base assumption is $17.621 million. At an 8% earned rate, the value is $13.171 million. The lapse rates by calendar year were:

1: Base
2: 70%, 50%, 25%, 15%
3: 50%, 40%, 30%, 20%
4: 45%, 40%, 35%, 30%, 25%, 20%, 15%, 10%
5: 40%, 35%, 30%, 25%, 20%, 15%, 10%
6: 35%, 30%, 25%, 20%, 15%, 10%

The last lapse rate is the ultimate rate.

Note that the values for the "bad experience" study were about one-fourth the values of the base case. Lapse rates are an important parameter in computing the value of the block. I am familiar with a few cases in which the lapse rates for a particular block were virtually 100% over one to two years, or even worse than the "bad experience" case. The 100% lapse scenario is not rare with a block that has been produced by only one to two agents.

After-Tax Values

Table 10 shows after-tax values. The tax ratios are in the right-hand corner. This was calculated by a complicated formula, described below.

TABLE 10
AFTER-TAX PRESENT VALUE OF BOOK PROFITS ($ IN $000)
1/1/87 VALUATION DATE

Earned Rate*	Various Lapsed Scenarios					
	1 = base	2	3	4	6	Tax Ratio
7%	$ 9,390	$2,377	$3,185	$3,365	$4,869	89.68%
8	11,621	2,887	3,919	4,133	6,002	88.23
9	13,506	3,351	4,587	4,828	6,998	86.93
10	15,109	3,776	5,199	5,459	7,881	85.74
11	16,482	4,168	5,761	6,038	8,669	84.67
12	17,666	4,532	6,282	6,571	9,377	83.68

* Discount rate = Earned rate

Computation of "tax ratios"

Notation:

r = tax rate
PVFP = present value of pretax profits (from Table 9)
i = interest rate
$v = 1/(1+i)$ interest discount factor.
Annuity = $(v^1 + v^2 + \ldots + v^{10})$

If we assume a ten-year amortization of price, then:
tax = r PVFP - r (Price/10) Annuity; Price = PVFP - tax.

Price(1 - r Annuity/10) = PVFP (1 - r) and
Tax-Ratio = Price/PVFP = (1 - r)/(1 - rAnnuity/10).

As the discount rate increases, the tax ratio decreases. The tax ratio would be 65% if there was no amortization of the purchase price and be 100% if there is an immediate deduction; and the buyer can use the deduction. If the purchase price is amortized, the tax ratio is between 65% and 100%. The amortization is basically an IRS-imposed "toll charge," because the selling company must pay immediate tax on the ceding commission.

Dynamic Assumptions

I wrote my own modeling program to compute values by using "dynamic" lapse assumptions (that is, assumptions that vary by calendar year). The program also can compute the mortality antiselection for high lapse rates. I used the Jeffery Dukes and Andrew MacDonald model 1980 *Transactions of the Society of Actuaries* (Volume XXXII) 547, which is based on conservation of deaths. On some blocks, several years of excess lapses can produce mortality rates of several hundred percent. This particular block covered a young age group, and the mortality antiselection did not have a horrible effect.

Scenario Testing

To compute values based on reinvestment rates, I used a program developed by Tillinghast. There are other good programs by M&R and Chalke as well.

To produce the values one also has to make assumptions concerning the types of investments used for "new money" and an assumption on the payment "shareholder dividends." Recall that the Anderson book value can be thought of as the present value of shareholder dividends less capital contributions. If the dividends are paid in cash, the cash flow available for reinvestment is reduced, which is not undesirable if interest rates have decreased. The treatment of federal income tax (FIT) also affects cash flow, and therefore values. For our model portfolio (Table 11), we produced the following values ($ in 000):

TABLE 11
PRESENT VALUE OF BOOK PROFITS ($000)—1995 ASSUMPTIONS

New York Scenario	95.1.12	95.2.12	95.3.12	95.4.12
1. Level	$10,984	$11,262	$9,172	$ 9,392
2. Up	11,796	9,915	9,763	8,347
3. Cap	10,925	9,875	9,123	8,237
4. Pop-up	11,163	**9,221**	9,271	7,729
5. Down	10,432	12,362	8,768	10,258
6. Cup	10,989	12,502	9,178	10,425
7. Pop Down	10,728	13,219	9,009	10,990
Pay Shareholder Dividend	No	Yes	No	Yes
Pay FIT	No	No	Yes	Yes
Discount Rate	12%	12%	12%	12%

Note that the 95.2.12 model produced a $9.221 million value for the pop-up scenario. This value was lower than all the other scenarios. I believe that high borrowing costs caused by the pop up in interest rates affected the values. We ran a few scenarios in which we changed the reinvestment security. If you assumed that you invested new funds in the 90-day Treasury, you would get slightly different results.

Overall, however, the results weren't terribly sensitive to the different scenarios. We have run some annuity valuations with dynamic lapse rates (lapse rates that fluctuated with interest rates) and found that the values for certain scenarios were very large, and some values were negative.

I also ran some values before and after tax, but the payment of tax did not seem to have much impact on the ordering of the results. Taxes just reduced all values by 15–20%.

In Table 12 we compare the 1995 values with the 1987 values; the differences are due to changes in the interest rates.

TABLE 12
PRESENT VALUE OF PRETAX BOOK PROFITS ($000)
1995 AND 1987 COMPARED

NY Scenario	95.1.12	95.2.12	87.1.12	87.2.12
1. Level	$10,984	$11,262	$15,595	$18,704
2. Up	11,796	9,915	17,290	17,458
3. Cap	10,925	9,875	16,347	17,357
4. Pop-up	11,163	9,221	16,836	16,750
5. Down	10,432	12,362	14,383	19,727
6. Cup	10,989	12,502	14,972	19,905
7. Pop Down	10,728	13,219	14,459	20,574
Average Investment Rate	8.64%	8.64%	11.34%	11.34%
Pay Shareholder Dividend	No	Yes	No	Yes
Pay FIT	No	No	No	No
Discount Rate	12%	12%	12%	12%

ASSUMPTIONS AND INDUSTRY DATA

Next I'm going to discuss assumptions. When you buy a block of business, you must look at the company's rates of interest, lapse and mortality, and you must do due diligence for the particular target. Examine its underwriting manuals and past experience. You must be careful in using industry lapse and mortality experience. The companies that submit data to intercompany studies often have better-than-average results.

I will give you some industry results. I have obtained data on CD-ROMs from the NAIC through OneSource in the Boston area. I have both the life and health database and the property and casualty database. On the 12/31/92 disk, which was published in January 1994, there were 1,793 life-health insurers with positive assets.

There were more companies on the data disk, but many were inactive companies, companies in rehabilitation, or companies that have been purchased and have changed their NAIC identification numbers. When a company goes into rehabilitation, its usually doesn't file annual statement data anymore. You won't find Mutual Benefit in the 1992 data. It disappeared from the database, which means certain industry statistics, such as aggregate assets, are distorted. The ACLI has tried to make provision for this in some of its statistics. Also, a few companies in Texas apparently don't have to file with the NAIC. I've seen one

or two cases in which a company just sort of appeared out of nowhere in the database. It was an old company and didn't previously report to the NAIC or A.M. Best.

Industry Lapse Results

Of 1,793 companies in 12/31/92, I limited the study to companies that had ordinary life insurance in force, and that was about 1,200. Statisticians frequently make tests or use the top .50%, the top 1%, and the top 5%. With 1,200 companies, the top 1% would be the 12th highest, and the top 2% the 24th highest. I used the SOA exposure formula, which is slightly different than the A.M. Best formula and different than the NAIC formula. The lapse rates are lower than the NAIC formula.

As you can see in Table 13, the top half of 1% lost most of its book of business. At the 5th percentile, about 30% of the entire book lapsed. Of course, on a given block of business you might have a company with 100% on one block and lower percentages on other blocks and they may not even make the 5th percentile. The above data are for the entire book of business.

TABLE 13
INDUSTRY LAPSE STUDY—USING EXPOSURE FORMULA

Place	1993	1992	1991	1990
6th = 0.5%	86.5%	78.2%	69.9%	74.5%
12th = 1%	65.5	60.9	57.0	62.7
24th	49.7	47.4	44.0	42.3
36th	43.9	37.3	37.3	37.6
48th	36.9	33.5	34.3	33.1
60th = 5%	32.7	30.8	31.8	30.0
72nd	29.7	28.6	29.7	28.3

Much of the lapse data that are reported to the Society of Actuaries and Life Insurance Marketing and Research Association (LIMRA) are from companies that have good lapse experience. The companies with bad experience might be too embarrassed to report. Also there is a weighing effect. The companies with good rates have higher in-force business, because continued high lapse rates reduce exposure. If the study is a weighted average, then the companies with good rates will bias the data.

Duff & Phelps, at a 1994 National Organization of Life and Health Guaranty Associations (NOLHGA) meeting, said that it is using a 100% lapse scenario to test the viability of companies. In view of my results, this seems to be a reasonable assumption.

Industry Mortality Results

I did a couple of studies on mortality ratios. Table 14 shows some of the results for a study of about 150 stock companies that had a significant amount of ordinary life business. The mortality ratio is the annual statement ratio:

$$(\text{Actual Deaths} - VD)/C$$

where "*VD*" is the reserves released on death, and "*C*" is tabular cost. I excluded one company with a 600% ratio. Nine of the 150 companies had ratios of more than 100%. The study uses tabular mortality, which includes American Experience, American Men, 1941 CSO, 1958 CSO, 1958 CET, 1941 CET, or many tables with very high tabular mortality rates. But they were still mortality rates of more than 100%. I looked at some of the companies near the top, and some of them had the word *burial* or *funeral* in the name, but some of them were reinsurers or just regular companies.

TABLE 14
STOCK LIFE MORTALITY STUDY—SELECTED COMPANIES ($000)

Company	Tabular Cost	Deaths	Reserve Released	Mortality Ratio
All	$12,667,438	7,098,703	1,229,032	46.3%
1	102,301	177,603	5,328	168.4
2	141,392	124,208	154	87.7
3	168,524	164,126	39,615	73.9
4	147,869	119,264	12,059	72.5
5	28,425	40,158	2,928	131.0
6	25,789	30,820	3,551	105.7

I did another mortality study based on the entire database of life insurance companies with tabular costs of more than $1 million. There were approximately 550 companies. The results are shown below in Table 15. The 1% results are the average of the 5–6th company on the list. The mortality ratios are net of reinsurance, and we still get some very high mortality ratios.

TABLE 15
MORTALITY DATA FOR LIFE INSURANCE
WITH ORDINARY LIFE TABULAR COST > $1 MILLION

Percentile	1993	1992	1991	1990
1%	210%	228%	222%	210%
2	153	179	177	153
3	140	134	150	140
4	125	121	130	125
5	116	115	119	116
6	112	104	114	112
7	106	100	109	106
Weighted Average	40.78%	41.46%	40.07%	47.70%
Number of Companies	552	548	561	582

A few of the larger stock or mutual companies with tight underwriting have mortality ratios around 25%. Thus, the best companies have mortality that is about one-eighth of the worst companies. Some of the reinsurers have high ratios, and the industrial and burial companies have high ratios. Some companies that have had financial difficulties have high mortality ratios.

When you buy a block of business, you must be very careful to make sure that the model assumptions are consistent with the company's actual mortality. I like to compare the

projection of next year's death claims with the most recent actual claims. If they're not in sync, I would increase the assumed mortality rates. The major risk in mortality is not random fluctuations from expected, but rather that expected is not known or could change (due to plagues, economic conditions). There is also significant risk from antiselection on lapse.

Exhibit 2 Interest Rates

Measuring investment performance is important. Until 1987 the annual statement had a portfolio yield rate in Exhibit 2. The formula is inaccurate and misleading, and the NAIC removed it. The formula is:

$$i = I / 0.5(A+B-I),$$

where A and B are invested assets less borrowed money at the beginning and the end of the year, and I is the net investment income.

Several organizations compute portfolio yield rates, partly based on the Exhibit 2 formula. The ACLI shows a portfolio rate in its fact book, but it also calculates other data, such as separate yield rates for bonds and mortgages. The ACLI now makes adjustments for the interest maintenance reserve (IMR). A.M. Best shows the Exhibit 2 rate for each company. However, A.M. Best sometimes makes adjustments to eliminate some double-counting of assets, or at least noted some problems. Now it also publishes total rates of return, which includes capital gains.

The Exhibit 2 formula had three major problems. First, certain assets were included that should have been studied separately, including, home office real estate, affiliated common stock, and policy loans.

The yields on these assets do not reflect the investment abilities of the companies. In fact, the dividends on affiliated investments are often zero. Policy loan rates are fixed by contract (and even state law) and many companies have a 5–6% policy loan rate.

Second, the numerator (I) is understated. Thus,

1. Realized capital gains on investments are ignored.
2. Unrealized gains on common stocks are ignored.
3. The tax advantages of tax-exempt bonds, mortgages and school real estate, and employee stock option plans (ESOP) are ignored.
4. The tax advantages of the dividends-received deduction on common and preferred stock are ignored.
5. The benefits of convertible bonds are ignored.
6. The tax advantages of market discount are ignored. (The market discount is taxed at maturity.)
7. Investment expense allocations may be overstated.

Third, the denominator is often overstated. Thus,

8. The unearned interest, especially on policy loans, is not subtracted.
9. The liability for amounts due security brokers is not subtracted.

The result of low-earning assets and understatement in the numerator and overstatement in the denominator produces artificially low Exhibit 2 yield rates. For certain companies with sizable asset acquisitions, the 50% factor in the denominator causes errors.

One can make certain changes in the formula to eliminate some of the problems. In fact, for reinsurance purposes, the NAIC has proposed a modification of the old Exhibit 2 formula. The *I* term includes realized and unrealized capital gains. There are still problems, however. The "amounts-due-broker" liability is a write-in, and write-in items are not identified on the Onesource (or NAIC) database. Also, the NAIC removed the tax-exempt bond interest from Exhibits 2–3 after 1990. Also, the NAIC Exhibits 2–3 have never shown tax-exempt mortgages or tax-exempt school real estate.

A Modification of Exhibit 2—Total Return Rates

To give you some idea of what companies are actually earning, I calculated a bond yield rate on a total return basis including capital gains. I restricted the study to mutual life companies just because there were fewer of them, and the program took a long while to run. I did some studies with stocks, and life subsidiaries of mutual P&C companies, Blue Cross franchise companies, and they were earning about the same. The industry was earning double-digit rates from 1985 to 1993. My Onesource-NAIC data were not available prior to 1989, so I computed the results by using Guardian numbers (Table 16). Note that the 1986 yield rate was more than 20%.

TABLE 16
EXHIBIT 2 BOND YIELDS
ON TOTAL RETURN BASIS

Year	All Mutual Life	Guardian Life
1993	10.27%	12.07%
1992	10.21	10.97
1991	10.85	11.78
1990	10.11	9.91
1989	12.02	12.07
1988	NA	13.59
1987	NA	11.23
1986	NA	**23.73**
1985	NA	13.85

The program ignored amounts due brokers and tax-exempt bond interest. The yield rates would have been even higher had we been able to include these data. I also ran "mortgage" yield rates, and they were sometimes higher than the bond yield rates.

The high earnings rates were reflected in high crediting rates. The interest-crediting rates on annuities, universal life, and whole life were in the double-digit range in the 1980s.

Valuation Interest Rates

Valuation interest rates on immediate annuities were more than 11% for 1982–85 (Table 17). These rates are based on the 36-month Moody's monthly average yield rates, less a

margin. The Plan A-Change-in-Fund valuation rates were even higher than the single-premium immediate annuity (SPIA) rates.

TABLE 17
VALUATION INTEREST RATES AND MOODY'S RATE

Year	SPIA, Life Income Option	Plan A, Change Fund	Moody's Yield 36 month average
1981			11.57%
1982	13.25%	15.75%	13.64
1983	11.25	13.50	14.26
1984	11.25	13.25	14.10
1985	11.00	13.00	13.21
1986	9.25	10.75	12.23
1987	8.00	9.50	11.05
1988	8.75	10.25	10.15
1989	8.75	10.00	9.93
1990	8.25	9.50	9.97
1991	8.25	9.75	9.74
1992	7.75	9.00	9.34

If the products were immunized by long-term investments, the companies should be able to maintain their profitability on these products. But if the book is sold in a lower interest rate environment, the purchase price is negative. (From the seller's perspective, the negative price should be offset by realized capital gains.) Steve will now talk to you about taxes.

MR. STEPHEN C. ELDRIDGE: What we've tried to illustrate in Table 18 are the effective tax rates under a number of different scenarios. Some of those scenarios are no longer in effect (because the tax laws have changed); they simply illustrate what the effective rates were historically.

TABLE 18
EFFECTIVE TAX RATES

Code Section	Method	Approximate Effective Tax Rate
—	Full Deduction	0– 5%
1.817 Regulation (1958-89)	Sum Digits 7–10 years	7–10
Section 848 (1990)	Straight Line 10 years	10–15
Section 197 (1991)	Straight Line 15 years	15–20
—	No Deduction	35

These are the effective rates of taxation based on the present values of the cash flows. A tax person might wonder why the effective tax rate is 0–5%, with a full deduction of the ceding commission. The rate is 0% if the insurer can use the deduction in the current year; otherwise the ceding commission must be carried forward.

The second line is Section 817; we assume 7–10-year amortization, similar to the sum-digits method. That produces a 7–10% effective rate. Section 848 contains the current

deferred acquisition cost (DAC) rules, in which you get a straight-line ten-year amortization with a half-year convention in the first year. So the effective rate of tax would be between 10% and 15%. Section 197 is the amortization of intangibles. The rules say that to the extent the purchase price exceeds the Section 848-DAC amount, the excess has to be amortized over 15 years straight line, with a half-year convention. Prior to Section 197 (amortization of intangibles), if you acquired a block of business by means of assumption reinsurance, all you had to deal with was DAC. Now you have to deal with DAC and amortization of intangibles. The combination of the two have simply made the tax cost of buying a block of business through assumption reinsurance a little bit more expensive. And finally we illustrate that if there's no deduction, the effective tax rate is 35%.

Table 19 is a chart by duration, illustrating the amortization of the net gain for the seven-year amortization. In this calculation we assumed that the initial ceding commission (assumed to be $11.377 million) was amortized in proportion to the net gain.

TABLE 19
ILLUSTRATION OF SEVEN-YEAR AMORTIZATION—LAW PRIOR TO 1990
($ IN THOUSANDS)

Duration	Net Gain	Cumulative Gain	Amortization	Taxable Income	Tax @ 35%
1	$ 3,127	$ 3,127	$ 2,104	$ 1,023	$ 358
2	2,820	5,947	1,898	922	323
3	2,536	8,483	1,707	829	290
4	2,321	10,804	1,562	759	266
5	2,164	12,968	1,456	708	248
6	2,029	14,997	1,365	664	232
7	1,910	16,907	1,285	625	219
Total	$16,907		$11,377	$5,530	$1,936

In the first column, Tom has illustrated the net gain on the transaction and column two is the cumulative gain reported. The next column is the amortization of issue costs. The final column is the tax. (To simplify comparisons we used the current corporate rate of 35%.)

The amortization column is computed as: (Net Gain) × (11,377/16,907). Thus, $2,104 = 3,127 × (11,377/16,907). The taxable income is the net gain less amortization. The tax was computed at a level rate of 35% (the actual rates have varied over the years).

Note the (Table 20) statutory reserves are $50,578,000, and there is a dividend provision of $991,000. The total reserve is $51,569,000 and the purchase price is $11,378,000. Net assets transferred are $40,191,000 of which $8 million is policy loans and $32,191,000 is cash (or bonds and mortgages).

Let's take a look at the tax chart. We have assumed that the tax reserves are $50,214,000, which are slightly less than statutory reserves of $50,578,000. We don't have a policy-holder dividend provision because it is not a tax reserve. The ceding commission, I'm sorry to say, is done on a tax basis. The tax rules do not mirror the statutory rules. The IRS wants its own set of rules. So for tax purposes we're using a different basis. We use lower tax reserves and because the dividend provision is not a tax reserve, we don't use that.

TABLE 20
FINANCIAL COMPONENTS
OF SAMPLE ASSUMPTION REINSURANCE

Item	Amounts in (000s)
Statutory Reserve	$50,578
Dividend Provision	991
= Total Reserves	51,569
-Assumed Price	(11,378)
= Net Assets to be Transferred	40,191
Policy Loans	8,000
Cash (Bonds, Mortgages)	32,191
848 DAC @7.7% of Assets	3,095
Tax Reserve	50,214
Assets Transferred	40,191
= Taxable Ceding Commission	10,023
Section 848 (see above)	3,095
Section 197	6,928

Tax reserves of $50.214 million less $40.191 million of assets leaves a tax ceding commission of $10.023 million, which compares to the price on a statutory basis of $11.378 million. We have a different ceding commission for tax and for statutory. Don't let that upset you. Everyone has to make a living.

Next, we calculate the (Section 848) DAC, which equals the assets transferred of $40.191 million times 7.7%, or $3.095 million. Subtract from the $10.023 million the Section 848 amount, and the remainder of $6.928 million is called the Section 197 intangible, which is amortized over 15 years, using the straight line method. Are there any questions before we go on?

MR. KABELE: There's a problem with policy loans in computing Section 848 amounts. I believe the 7.7% should be based on the assets transferred less the policy loans. I would use the $32.191 million to compute the Section 848-DAC.

MR. ELDRIDGE: There is some question, but I think that it includes the loans. I've used $40.191 million, which includes the cash and the policy loans. This is important. It is the overview and it gives you the big picture.

Table 21 illustrates pretax values at a 15% discount. The pretax value of the block of business (shown in column one) is $13.694 million. The present values of the taxes using a 35% tax rate are in column two. With full deduction, or no toll charge, the tax is zero. Go down to the line that says No Deduction; the tax is $4.793 million. But you will see from the last table the various components. For example, a portion, the $3.095 million, was going to be amortized at ten years straight line and a portion at 15 years. You would combine these two tables, take the actual calculation, the $3.095 million at 10 years and the

$6.928 million at 15 years, and come up with a present value of tax. The final column is the after-tax price, or at least its target price, that the assuming company can afford to pay for the block of business. That's how the assuming company would incorporate taxes in coming up with its purchase price for the block of business.

TABLE 21
AMORTIZATION OF PURCHASE PRICE ($ in 000)

Method	Pretax Value at 15% discount	Tax at 35%	Post-Tax Price (000)
No Toll Charge	$13,694	$ 0	$13,694
7-year Decline	13,694	2,316	11,378
10-year (848)	13,694	2,896	10,798
15-year (197)	13,694	3,386	10,308
40-Year	13,694	4,243	9,451
No deduction	13,694	4,793	8,901

FROM THE FLOOR: Did you illustrate 10–15 year amortization on the previous table?

MR. KABELE: Only the seven-year declining was illustrated.

MR. ELDRIDGE: Yes, we couldn't put ten years on one table. Don't try to relate these. These are just both conceptual, but the numbers from this table are not meant to tie to the numbers on the other table.

FROM THE FLOOR: In theory what would you need to do?

MR. KABELE: To do those calculations you need the initial ceding commission (on a tax basis) and you develop a straight-line amortization schedule over ten years (for Section 848-DAC) or 15 years (for Section 197-intangibles).

MR. ELDRIDGE: Before I go on to some other legal principles, I want to talk about DAC and other tax issues with respect to acquisitions.

DEFERRED ACQUISITION COSTS (DACS)

In doing an acquisition, you're concerned about the DAC and you're concerned about amortization of intangibles. In DAC, the big issue is the use of a negative. The ceding company normally has a large negative, and the assuming company has a large positive for DAC. So if I'm the assuming company, I have to calculate how much this positive is going to cost me and I'm going to price that in my acquisition. That is, I'm going to take that into account, and I'm going to pay the ceding company less money, so the ceding company bears the economic cost of the assuming company's large positive.

The ceding company is going to have a large negative, which we hope it can deduct, but you can't assume that. You must take that slowly. The first problem is the general deduction limitation. The amount of Section 848 DAC that must be capitalized by an insurance company is limited to that company's general deductions. Congress was concerned that companies might dump DAC into reinsurers with little or no general deductions, so they imposed a requirement that forces the ceding company to obtain a statement from the reinsurer that the latter will capitalize the DAC without regard to any

general deduction limitation, or else the ceding company may lose credit. It is unclear from the wording of the Section 848 regulations if this requirement is imposed on premiums ceded by a direct writer, but it plausibly is imposed. In addition, the ceding company receives no negative for business ceded to an alien reinsurer. Further, the reinsurer cannot use the five-year amortization for small companies but must use the ten years.

The next issue is whether the ceding company has sufficient positive DAC from other sources to utilize the negative it gets from ceding business out. Consider the $3.095 million DAC in the table. If the ceding company has more than $3.095 million in positive DAC from other business that wrote it that year, it gets a full deduction. If the ceding company didn't write enough business that year to absorb the negative, it can carry the negative back to prior years, until 1990 when it first capitalized DAC. If the ceding company uses up all its prior DAC, it can carry the unused amount forward, but if it is winding down there may be wasted deductions. If the selling company is going to buy other blocks of business, you should try to arrange it so the transactions happen in the same year, so that with a big negative going out, you have a big positive coming in. Instead of doing assumption reinsurance you may convert the agreement to a modified coinsurance (modco) deal that will lower the total amount of the DAC going out, but the ceding company remains directly liable to the policyholders. On indemnity reinsurance the death and surrender payments give rise to Section 848 income to the ceding company and deductions to the reinsurer. There is no Section 197 on indemnity reinsurance.

There's another issue on using negatives. There is an exception in the statute and in the regulations with respect to insolvent ceding companies. The Treasury took heart that those kinds of companies may not have sufficient DAC positives. If the ceding company is insolvent, or in liquidation, or in a state proceeding, then the ceding company's negative and the assuming company's positive are both reduced down to an amount that the insolvent ceding company can utilize. Therefore, the ceding company uses everything, and the assuming company picks up the smaller amount and therefore penalizes the ceding company to a lesser extent in computing its purchase price.

Section 845

One final point with respect to taxes is Section 845. I don't think that assumption reinsurance should be a problem under Section 845. Indemnity reinsurance is more of a problem. Under Section 845, the Internal Revenue Service might claim it has the right to do whatever it chooses to a reinsurance agreement no matter how much good intention the parties have. If there is "substantial tax-avoidance effect" (however you define that term), then the IRS claims the right to deny that tax benefit, if the IRS, in its wisdom, determines that tax benefits are somehow "out of proportion" (however you define that) to the "risks transferred" (however that is defined) in the reinsurance transaction.

I don't know how it makes its determinations, but the IRS has said that, generally assumption reinsurance does not give rise to a Section 845 adjustment. Congress stated in the preamble to the 845 Committee Reports that, normally speaking, assumption reinsurance involves substantial risk because of the fact that the assuming company takes on all the risks there are. But it doesn't mean that the tax savings aren't out of proportion to the risk.

Section 845 is this sword of Damocles that the government has that's always hanging over your head no matter what you do. You must always be aware that there is some potential

for damage. We're doing our best to undo that potential for damage. I'll find out tonight or tomorrow morning whether the first Section 845 case is going to court out on the West Coast. I'm supposed to testify as an expert witness, but the government's trying to keep me out of the case. This will be the first time the government has ever taken a taxpayer to court on Section 845. A similar case was just settled a few months ago. The IRS is trying to disallow a small life insurance company that assumed some life reserves to be sure it qualified as a "life" company for *tax* purposes. As I said, that case is going to be heard starting on Wednesday. I'll probably tell you about it at the next meeting.

Legal Principles

Tom and I thought it would be important to go over some legal principles that apply to reinsurance. These principles apply to coinsurance, but they also might apply to assumption reinsurance, which is what you think assumption reinsurance is, which the courts may interpret as coinsurance, not assumption reinsurance. These are defined as follows:

Set-off—Each party owes the other a prepetition independent and unconnected debt, and the debts are mutual (between the same parties, in the same right and same capacity). The smaller debt extinguishes part of the larger. A set-off is an inexpensive security device.

Recoupment—One party owes the other a debt that is reduced because of a prior overpayment or a failure of performance on the same contract. Recoupment is a "beneficial improvement on the old doctrine of failure of consideration." (See *Lufburrow v Henderson* (30 Geo R 482, 1859)).

Gain and Loss Defense—One debt is determined by pluses and minuses, such as an income tax debt for a specific year or buying goods at a discount. (This is sometimes included with recoupment. See Wood, *English and International Set-off*, Sweet and Maxwell, London, 1989, page 21.)

Cum Onere—One must accept both the benefits and burdens of a contract. [See Justice Rehnquist in *NLRB v Bildisco* (465 US 513, 1984), and Justice Douglas in *Thompson v Texas Mexican Railroad* (328 US 134, 1946)].

Executory Contract—is a bilateral contract unperformed on both sides to a significant extent. (See *Collier on Bankruptcy*, §365.)

Condition Precedent—is a condition that must happen before the liability of the other party attaches. (The payment of premium is a condition precedent for an insurer's promise to pay claims.)

Mutual Dependency of Promises Principles—On a bilateral contract, all the promises of each party are consideration for the return promises. (See *Kingston v Preston*, 1773; *Second Restatement of Contracts* Ch. 10).

Consider the first two items, set-off and recoupment. These are two different concepts and the distinction is quite important. In set-off, each party owes the other an independent and unconnected debt. Set-off is confined to unrelated debts. Right now I understand that California is looking at reinsurance transactions, especially assumed ceded reinsurance. Can you set off these unrelated transactions? Generally speaking you have the right of set-off, but the states have imposed certain limitations.

Set-off is to be distinguished from the concept of recoupment where one party owes another a debt that is reduced because of a prior overpayment or a failure of performance on the *same* contract. For example, within the same reinsurance contract there may be two quarterly settlements outstanding, say one settlement is owed to the ceding company, and

one is owed the reinsurer. The netting of those two obligations within the same contract is the legal doctrine of recoupment as opposed to set-off which is offsetting two independent and unrelated claims. I'll show you in the next table, the effect of denial of set-off or recoupment. Some of the results here can be dramatic.

In the *gain or loss* case there is single debt, which is determined by pluses and minuses, and there is no need to resort to either set-off or recoupment to determine the amount owing. For example, the tax calculation on a particular return has pluses and minuses, and the net due is the debt. Likewise, if you buy goods on credit with a list price of $100 and a discount of $20, the debt is $80. You don't have a payable of $100 and a receivable of $20. On a reinsurance treaty with quarterly settlements, the debt is the net of premiums and claims.

The doctrine of *cum onere* means with all benefits and burdens. Generally speaking, when a trustee in bankruptcy assumes an executory contract, he/she can't take the good parts and ignore the bad parts. Likewise you can't say to your landlord, "I have the right to occupy your apartment, but I don't have to pay you rent." You have to take the good and the bad. That relates to an executory contract, which is a contract in which both sides have continued performance in the future.

Other legal principles: a condition precedent is a condition that something has to happen before another party has an obligation to perform. "You must pay me premiums first before I pay you claims." That's a good-sounding general principle. Mutual dependency of promises, which is on a bilateral contract are where each party's promises are a consideration for the other party's promises. My point is that you should not have to be lawyers walking out of here, but these are just a few of the legal principles involved.

Take a look at to what might happen to you in reinsurance in Table 22. We have two different treaties (for simplicity we assume both are ceded treaties). Let's assume that at the end of the second quarter, the ceding company goes bankrupt, with two quarterly settlements outstanding on each treaty.

TABLE 22
REINSURANCE TREATIES

Quarter	Treaty #1			Treaty #2		
	Premium	Claims	Net	Premium	Claims	Net
1Q	$400	(300)	100	$400	(480)	(80)
2Q	400	(430)	(30)	400	(340)	60
Total	800	(730)	70	800	(820)	(20)

The moment before the bankruptcy, the reinsurer expects to receive a net $50, which is $70 from Treaty #1, less a $20 loss on Treaty #2 (Table 23). Now let's take a look at the third line in Table 23: No Set-Off. What would happen if the regulators say the reinsurer cannot set-off between these two unconnected contracts? If there is no set-off, the reinsurer must pay the $20 on Treaty #2 and it loses the $70 coming back. So if it cannot set off these two contracts, it loses $70; that is, a $50 profit becomes a $20 loss.

TABLE 23
REINSURANCE OUTCOMES

Event	Reinsurer's Loss
1. no bankruptcy	Gain $ 50
2. bankruptcy with set-off	0
3. no set-off	(20)
4. no recoupment	(110)
5. no *gain-loss* treatment	(1550)

FROM THE FLOOR: Are you only losing your profit?

MR. ELDRIDGE: I'm not going to collect the *net* $50 profit I was entitled to. I'm a bottom-line guy. Instead of getting $50, I lose $20, which is a difference of $70. This is $70 worse than the base case of a no-bankruptcy $50 net profit result.

Now let's take no recoupment. Recoupment applies to the same contract. Set-off applies if it is confined to multiple contracts and does not apply to the same contract. If recoupment of prepetition amounts is denied, I lose $110 plus the $50 as well, or a total of $160. Where am I getting the $110 from? If you notice in the first quarter on the second contract, there's a loss of $80, and in the first contract there's a loss of $30 in the second quarter. They might say you have to pay those two losses, $110, and you don't get your $50 profit. I would say that I'm now $160 worse than before the bankruptcy. Did everybody see that? They would say to take only those losses, the net losses for those two quarters, and I cannot net the profits from the first quarter.

Let's take Doomsday—and don't think the issue has never been raised. Doomsday means there is no gain or loss defense. The regulator says you have to pay all the claims, $730 of claims from the first treaty, plus $820 worth of claims from the second treaty, for a total of $1,550 and you get no premiums.

FROM THE FLOOR: Would the regulators or the bankruptcy courts be telling you to do that?

MR. ELDRIDGE: Both. It would be the regulator, in his or her status as receiver claiming so, and a local court saying so.

MR. KABELE: Not a U.S. bankruptcy court. Insurance is not in U.S. bankruptcy court, except for §304 proceedings involving alien insurers.

MR. ELDRIDGE: Domestic insurance receiverships are not handled in U.S. bankruptcy court. The reason I'm saying all this is this happened in a local court in the middle of the U.S. and the case is on appeal, but the lower court judge said $1,550. The insolvent company was the reinsurer of a profitable block of business, and it wants the retrocessionaire to pay it the $1,550.

I did not make up a theoretical doomsday scenario. Unfortunately, this is real life with the quality of the legal system and judges. It can happen. So it is important that you be able to protect yourself. Write treaties carefully. But then again with our court system, you may

not be able to protect yourself. This is rather dramatic, and we hope to get that $1,550 result overturned. But there are lawyers for the state guaranty funds who, in view of the $1,550 result, are saying, "You see? We have a new tool to get money from reinsurers." This is serious. This is not theoretical. Are there any other questions?

MR. KABELE: It could apply to assumption reinsurance, too.

MR. ELDRIDGE: Yes, if it fails.

MR. KABELE: Yes, or even if it succeeds (meaning you have a novation); you still have a contract. This applies to all contracts, not just reinsurance. It can apply to a contract of purchasing software, pencils, paper, or anything.

FROM THE FLOOR: In terms of that range of options, what determines which treatment you're going to get, and where is the industry generally on that continuum? What determines which treatment you get and what generally happens?

MR. KABELE: Local politics basically determines it, and the elimination of the "gain and loss defense" might not be the worst case. In the worst case the receiver might claim it is entitled to affirm, going forward, the benefits of a reinsurance contract without the burdens; although this is contrary to "black letter" contract law and numerous court decisions dating back hundreds of years. Then the loss is $1,550–1,600 on the date of the insolvency, plus $800 a quarter thereafter.

MR. ELDRIDGE: I would say that neither the $160 nor the $1,550 is the right result. If you talk to your local regulators as people are doing now, for example in California, where they are writing some of these rules, you should be able to convince regulators that neither $160 nor the $1,550 is the right answer. But when you go to court with complicated reinsurance matters, local judges don't understand it. You can easily get results that you and I would consider to be off the wall. We gave you that example, because it's there. It's a live one. I think at the end of the day, with proper attention and discussion with the NAIC, this should be minimized, but that's saying a lot in a couple of words. Proper attention means that the companies get together, lobby the NAIC, the regulators, and the ACLI to get this done properly. Make sure you pay attention to it. It shouldn't be the right answer.

MR. KABELE: Also, when you draft treaties, regular reinsurance treaties or assumption treaties, you should use the words *set-off* and *recoupment* very carefully. The payment of reinsurance premiums should be stated as a condition precedent to the payment of claims, and the amount owed on a quarterly settlement should be defined as the net of premiums less claims.

FROM THE FLOOR: Tom, going back to your lapses on assumption reinsurance, I'm assuming that some policyholders are going to see that they're being acquired from Guardian and you might get a lower lapse rate because of that. Some others might all of a sudden discover they had a policy that they had forgotten about. I'm wondering what you do about pricing for the point of assumption for lapse rates.

MR. KABELE: You're referring to shock lapse. Many people have forgotten about their policies and they won't do anything unless they're reminded or they remember. They put

them in a drawer and don't want to think about them. After all, we're insuring death and that's not very pleasant. But when you do send them assumption certificates, they may recognize it and they may decide to lapse. I've seen shock lapse scenarios of 10% to 20% as a fairly standard assumption.

FROM THE FLOOR: How about the reverse?

MR. KABELE: The reverse, meaning where you get better lapse rates? I guess it could happen. Some of the blocks I've seen that were purchased had very low lapse rates after the transaction. I wouldn't price it, however, by assuming that you're going to get better lapse rates. That's just something you bring to the table; you shouldn't give that away.

FROM THE FLOOR: I'm just wondering if you've seen the same thing on health. Have you looked at reinsuring health or buying blocks of health policies? What would you do in that instance? People may have forgotten their policies and all of a sudden they remember, and you're going to have shock claims.

MR. KABELE: I haven't thought about shock claims, but you absolutely might have some of those. Usually people don't die to collect on their life insurance, but certainly on disability income you might have some shock.

MR. ELDRIDGE: It's possible I guess.