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MULTIPLE LIFE PLANS

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Last-to-die and joint life plans have been increasing in popularity. This session will discuss these plans with respect to:

- Plan design
- Regulatory issues
- Administration
- Tax
- Policy splitting provisions
- Markets

MS. ANNE M. KATCHER: The market for Multiple Life Plans is growing in leaps and bounds. The estimated market size from a recent survey, based on new premiums written, showed that premiums have grown from about $100 million in 1988 to more than $450 million in 1990. Although 60% of the market share is still controlled by the top five companies, new companies are entering the market at a very rapid pace. First-to-die products have only recently started to gain sales interest and emerge (or reemerge in some cases) in many companies' product portfolios.

For this session, we have three speakers who have broad experience in the survivorship market. Our first speaker will be John O'Connell who will speak about the market for survivorship products and share examples of sales techniques in estate planning. Our second speaker will be Carol Marler who will talk about last survivor products, including some reinsurance aspects. Finally, Phil Polkinghorn will share his thoughts on first-to-die products.

MR. JOHN J. O'CONNELL: I'm going to talk about the marketing aspects of second-to-die products, which are developed mostly because your top agents demand it. They work in the market where second-to-die is important, where estates of more than $1 million need estate tax planning. This is only about 1% of the country. Therefore, unless you're getting into $1 million or more of net worth, you don't need the second-to-die policy.

Estate taxes can run up to 50% of the total estate at death for a $2.5 million estate. This compares to 37% for a $1 million estate. Thus, the insurance is primarily used to offset these estate taxes.

The primary sales thrust with a second-to-die policy is the irrevocable life insurance trust, a trust that is set up by the attorney so that the insurance policy owned by that trust is kept out of the estate. The insurance should not be part of the estate

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since the policy purpose is to pay the taxes. The trustees apply for, pay for, and are the beneficiary of the policy, and the beneficiary of the trust may be the children of the insureds.

Note that the insureds are making a gift every time they pay a premium into that trust. Under the present gift tax rules, a tax-free gift of about $20,000 per year is allowed for husband and wife together, per beneficiary, who are usually children; $20,000 a year is a pretty good exclusion, and can buy a significant amount of life insurance. As we'll see toward the end of my discussion, one of the techniques used to leverage up the amount of insurance in the trust is a split-dollar plan.

About 95% of the sales are probably done for estate tax planning purposes and usually use an irrevocable trust.

The second area of potential sales for the second-to-die policy is in the business insurance market, in the form of the buy-sell agreement, or key person insurance. The buy-sell area could be mom and dad who own a company and are going to pass it on to their daughters and sons. They will buy the second-to-die policy so that taxes can be paid at the death of mom and dad, or a second-to-die policy payable to one of the children so they can buy out mom and dad's interest in the business at death.

It also can be used in key man situations, where you have more than one key person in a corporation. Perhaps the corporation could absorb the death of one of the key people, but not more than one. A second-to-die policy will cover that situation.

Another use for the policy is in the charitable bequest area, particularly in the charitable remainder trust area. A second-to-die policy can be used in what is known as a wealth replacement arrangement, where basically the insureds will use a second-to-die policy to replace money that they had given to a charity for income tax purposes. And finally, there is a market, theoretically anyway, for dual-income families. With both spouses working, the family could absorb the loss of income that would come at the death of the first, but obviously if both parents die, the children have to be protected, so a second-to- die policy could be used. The greater market for this will be the first-to-die policy. But the second-to-die policy does have some application in the dual income market.

Let's take a look at a couple of marketing ideas. The first thing I mentioned is this $20,000 a year annual exclusion gift. That's how much a husband and wife are allowed to give away to each child. So for three children, it could be $60,000 a year. Table 1A shows the amount of insurance that could be bought by one $20,000 annual exclusion, in the form of taking the premium and using it to buy an insurance policy; a second-to-die insurance policy. For example, at age 65, that for $20,000 a year the parents can buy $1.5 million of insurance; $1.5 million of insurance is about enough to cover the estate taxes on a $4 million estate.

So, the second-to-die policies are a very economical way to cover the tax on the total estate at a relatively slight cost.

TABLE 1
Amount of 2nd-To-Die Insurance

A.		B.	
$20,000 Annual Exclusion Gift		$600,000 Annual Exemption	
Age*	Amount of 2nd-To-Die Insurance ('000s)**	Age*	Amount of 2nd-To-Die Insurance ('000s)**
50	$4,300	50	$10,100
55	3,040	55	7,380
60	2,090	60	5,100
65	1,540	65	3,860
70	1,040	70	2,800
75	680	75	2,000

* Male and female, nonsmokers
** Endow at age 100, assuming 8% interest

Many people talk about making gifts of property, but very few people actually make gifts of property, and giving away $20,000 a year in stocks, bonds, cash or whatever accomplishes very little estate tax savings. Actual savings may be $10,000 a year in estate tax on that $20,000 gift. By putting the $20,000 into a second-to-die policy, however, you can pay the tax on the total estate with the policy proceeds.

Another method being used is single premium-type arrangements, taking advantage of the $600,000 exemption as shown in Table 1B above. There is no tax on the first $600,000, whether it's a gift or whether you die with it. And with husband and wife, it's $1.2 million. So, the $600,000 exemption could be used as a single premium. By placing the $600,000 into an irrevocable trust, there will not be any gift tax or estate tax. Plus, the $600,000 is dumped into a second-to-die policy. And as indicated here, for example, at age 65, that one $600,000 transfer could be used to buy almost $4 million worth of insurance. It could be used, basically, to buy enough insurance to cover the taxes, in round figures, on about a $7 or $8 million estate. Again, a very effective leveraged use of insurance.

In very large estates, for example, if someone needed $10 or $20 million of insurance regardless of the leverage, the premiums can be pretty substantial. And the premiums can be high enough so that you cannot get that much money into the irrevocable life insurance trust without running into gift tax complications. In this situation, a split-dollar arrangement is often used, with a corporation to pay the premiums. By the way, people who have a lot of money usually have it because they do own their own businesses or have it in real estate.

The measure of the value of the income to the insured in a split-dollar plan and the measure of the value of the gift to an irrevocable trust in a split-dollar plan is based on the so-called PS38 rates per current IRS rules. PS38 rates are basically a joint mortality table. These rates are much less than the rates on a single-life case

(Table 2). Note that at age 50, the joint mortality table, or second-to-die mortality table, is .05 of the single life tables.

TABLE 2
Split Dollar Term Rates

Age	Single	Joint/Survivor
50	1.85	0.09
55	2.46	0.19
60	3.32	0.44
65	4.57	1.02
70	7.08	2.37
75	10.68	5.50
80	16.35	12.64
85	35.01	28.51

Gradually, the rates come together at older ages. But the point is that by using these very low joint mortality tables as the measure of the value of the gift in a split-dollar type of case, you can buy an awful lot of insurance without having to worry about gift taxes.

Table 3 is a simplified illustration of insurance on a couple on a split-dollar basis. Note that the cash values are really immaterial in most cases. What people are concerned about is how much insurance for how much premium.

TABLE 3
Split Dollar Plan
$10,000,000 2nd-To-Die Insurance

	A.		B.	
Year	Insured's Cost (PS "38")	Company Cost	Insured's Cost (Single Life)	Company Cost
1	$10,170	$203,830	$45,700	$168,300
2	12,040	201,960	49,600	164,400
3	14,260	199,740	54,100	159,900
4	16,880	197,120	58,800	155,200
5	19,990	194,010	64,500	149,500
10	46,460	167,540	98,700	115,300
15	107,130	−107,130	148,700	−148,700
Sum	$2,140,000	$0	$2,140,000	$0

Males and females at age 65, nonsmokers
$214,000 premium for 10 years

In this example, a husband and wife, aged 65, nonsmokers, have paid a premium of $214,000 a year for 10 years. By the way, it's become standard practice for agents to sell on the basis of a limited-pay. That is, rather than paying premiums for life,

premiums are paid for 10 years, 7 years, whatever the case might be. So, $214,000 premium for 10 years would carry the policy on to age 100 at current rates.

The insured's cost is shown in the first column. This is what the insureds would either be paying on a split-dollar basis or how much they would be reporting in income, and it's the measure of the gift-tax value. So on $10 million, it's very little cost in the early years and it's well under the annual exclusion. You get a lot of insurance into that irrevocable life insurance trust without worrying about gift taxes. However, the cost does build up. If you look down Table 3 at the later years, some costs are going to run way above the $20,000 or $40,000 or $60,000 allowance. Depending on how many kids you have, you're going to run into gift tax situations. That's assuming, by the way, that both parties are still alive. The difficulty, as demonstrated in Table 3B, is that if, in fact, one of the insureds dies, you have to switch to the single life table.

This means that you have to use a higher reportable amount for both income and gift-tax purposes. For example, in the first year, there is a $45,000 cost rather than $10,000. Thus, the second-to-die, joint-survivor tables are extremely effective for split-dollar cases, in terms of leveraging amount of insurance into an irrevocable trust. But there is a limit, since when one of the parties dies, you must switch to the single life rates. It still can be pretty attractive.

One way that has been developed to get out from under the increasing term insurance cost and the increasing gift tax exposure is to end up with a policy in which you pay off the corporation, so there is no more continuing split-dollar reportable income. This can be accomplished by putting a lot more money into that policy, building up more cash value. For example, putting $655,000 of premium into the policy builds up enough cash value in the policy so that the corporation can make a withdrawal equal to all of its premium payments. After the payoff, there is still enough cash value left in the policy to carry it to age 100 with no more premium payments by the insured (Table 4). So they pay heavy premiums for 10 years but the corporation gets back all of its money and the insureds have enough money in that policy owned by the irrevocable trust to carry the policy with no more outlay.

This is a technique that's been developed to basically leverage up those low reportable term rates in the early years and eliminate them altogether in the later years when they might become a gift-tax problem. That's the way a lot of very large sales are being made simply because of the leverage of how much insurance you can get into the irrevocable life insurance trust.

One other idea I wanted to cover is the idea of the charitable remainder trust. This is a growing technique, even though charitable remainder trust ideas have been in the books for a number of years. It's something that agents now are getting more and more into, and we see more and more discussion about it in the trade journals.

Let's assume you have a person with $1 million worth of unproductive real estate, or perhaps low-basis stocks, which were bought a number of years ago. Assume it has a $100,000 income tax basis. It may or may not be producing income.

TABLE 4
Employer Pay-Off Split Dollar Plan
$10,000,000 2nd-To-Die Insurance

Year	Insured's Cost	Cash Value	Company Cost	Cash Value
1	$10,170	-	$654,030	$333,300
2	12,040	-	652,160	1,045,000
3	14,260	-	649,940	1,814,400
4	16,880	$40,300	647,320	2,603,500
5	19,990	290,500	644,210	3,247,700
6	23,670	631,900	640,530	3,888,200
7	28,020	1,054,400	636,180	4,524,400
8	33,170	1,562,800	631,030	5,155,400
9	39,260	2,163,800	624,940	5,780,300
10	46,460	2,865,000	617,740	6,398,080
	243,920		6,398,080	
				-6,398,080
				0
15	0	4,165,800	0	0
20	0	5,439,000	0	0

Males and females at age 65, nonsmokers
$664,200 premium for 10 years

The problem is if it sold, in order to make it more productive for income, there would be capital gains of $900,000 and a tax of $252,000. There would be $648,000 left to invest in the bond market or mutual fund or whatever for income. Assuming a 7% annual return, there would be $45,360 a year of income. Assuming they die with that property, and they're in the 50% tax bracket, the children end up with $324,000.

Another technique would be not to sell that property off, but to hold it until death. If you hold property until death, then there's the increase in the basis, and you only have to worry about the estate tax. In this example, the parents simply hang onto that million dollar property until death. They have to face only the $500,000 estate taxes, but no income tax, and the kids end up with $500,000. This is not as good for the parents since they don't receive any income.

With the charitable remainder trust technique, the $100,000 piece of property is put into a charitable remainder trust (Table 5). The trust sells the property and there's no capital gains tax to either the trust or to the parents. As a matter of fact, the parents get a $404,000 income tax deduction by doing this. They then have $1 million in their trust. At 7% interest, they're going to get more income ($70,000 a year) than by selling and investing in mutuals or bonds. The kicker is that by having this greater amount of income provided for the parents (generated by the full $1 million as spread out over a period of five years), there's enough money to cover the cost of a million dollar second-to-die policy, which could be owned by the kids or a trust. So by replacing the $1 million in the charitable remainder trust with a policy owned by the children, the parents receive an income tax deduction, plus more income, and no

estate tax to worry about. In addition, the kids have $1 million tax free. That's the charitable remainder trust idea.

TABLE 5
Planning With a "CRAT"

Current Property Value	$1,000,000
Tax Basis	100,000
Income	?
If Sold Now	
Capital Gain	$900,000
Tax at 28%	252,000
Net	648,000
Income at 7%	45,360
Estate Tax at 50%	324,000
Net to Children	324,000
If Retained Until Death	
Step-up in Basis	$1,000,000
Estate Tax at 50%	500,000
Capital Gains Tax	0
Net to Children	500,000
If Transferred to a CRAT	
Capital Gain	$0
Charitable Deduction*	404,000
Income at 7%**	70,000
Estate Tax at 50%	0
Net to Children	1,000,000

* Deductible up to 30% of aggregate five-year carry-over, based on males and females at age 62.

** From wealth replacement trust funded by $1,000,000 of second-to-die benefits. The annual premium could be covered by the tax savings from the CRAT tax deduction or from income.

The aspects of the second-to-die policy deal with a very small segment of the population, perhaps 1% or so, although it is a growing segment. The average issue age of the insureds on these policies is probably close to 60 years. The amounts of insurance are usually $1 million or more. It's a big premium sale, and it's the type of sale that appeals to your bigger and better agents.

MS. CAROL A. MARLER: The marketing folks usually call a multiple life policy something like "Survivor Life." And in the home office, the underwriters and actuaries call it second-to-die or last-to-die. This product is getting a lot of attention because it meets a specific insurance need, as John pointed out, and it has a very attractive premium. Agents like it because of the potential volume, and the life insurers are happy to have something new to offer, and they're very happy, too, with the projected volume of business.

However, the marketplace is becoming very competitive and consumers are doing a lot of shopping. Because of the nature of the product, underwriters are seeing larger amounts, at higher ages, and this substantially increases the work involved in evaluating insurability. Reinsurers want to support their clients on these products. But the concerns that reinsurers have relate to the underwriting issues and to the question of available capacity. And, of course, they also have an interest in the design of the product, its features, and how the reinsurance is to be administered.

The first question to be addressed in product design is the cash value. There are two common structures for policy cash values. In the original design, the cash value depended on whether both were alive or whether one had died. This design produces a discontinuity in cash value on the first death. The difference is the result of a prospective calculation which is conditional on the states of the two lives.

For Universal Life, it's impractical to use that prospective calculation for the cash value. Partly for this reason, the "Frasierized" version of the joint life plan was developed, whereby there's no change in cash value at the first death.

Everything is based on the status of a joint life, and that joint life is either considered to be still in existence or the second death has occurred.

The two products are handled quite differently for reinsurance purposes. For the Frasierized version, the single life that the reinsurer would look at is replaced by a joint life status, but from that point forward, everything looks exactly the same. There are different rates, of course, but the calculation of net amount at risk is going to be the face amount less the cash value, just as for a single life plan.

For the version with the cash value jump there are two cessions. One is put on each life, and the amount at risk before the first death is the amount that the cash value would change when the first death occurs. Then, upon the first death, one cession is terminated, and the net amount at risk on the surviving life switches over to the face amount less cash value.

This procedure does minimize the ceded amount in early years. The premium scale may cover the simultaneous death contingency implicitly or there may be a separate explicit charge for that. With this approach, the pattern of net amount at risk is unpredictable though, since it depends on who dies first and when. Problems arise when a policy suddenly changes from being within retention to being over it.

Another situation that can cause the net amount at risk to switch from being within retention to being over it is a paid-up additions rider. This rider is sometimes available with participating plans. It allows gross premiums to be combined with policy dividends to purchase a combination of term and paid-up benefits.

Because of the low mortality in the early years, there's a substantial leveraging effect. Over a period of 20 years, the amount of insurance could easily double under this option, or even more than double, depending on the relationship between the basic premium and the paid-up additions amount. This increasing pattern of benefits, especially with a large initial amount, can lead to capacity problems when looking for reinsurance support.

On the other hand, many participating plans are structured with a term rider. This term rider helps to level out the benefit. Generally, the term rider coverage will decrease to match the amount of paid-up additions purchased with dividends. This makes the amount of insurance remain more level during the policy life, and also helps to make the gross premium more competitive with nonpar plans.

Turning to the question of premium levels, most buyers are looking for low annual premiums. However, there are those who want the policy paid up as rapidly as possible. In addition, the product design is occasionally used as a tool to maximize the investment character of the insurance policy while simultaneously avoiding classification as a modified endowment contract.

Another design feature for the second-to-die plan is the policy split option. This popular feature allows the joint life policy to be exchanged for two, one on each life, in the event that the inheritance tax laws are changed or if there is a divorce. Within a stated time, this exchange can be made without evidence of insurability. Of course, the option cannot be offered if one of the lives is uninsurable.

For administrative simplicity, many companies use a simple formula or table to produce a joint-equal age. Depending on the sophistication of the method used and the difference in the two ages, the equivalents may be a very rough approximation. Unfortunately, some state insurance departments have been reluctant to endorse the joint-equal age approach. Extensive evidence must be supplied to show that the results are at least as favorable to the policyholder as would be obtained by using an exact calculation based on the two separate ages.

As a result, more complex schemes for joint-equal ages are evolving, and also companies are offering products that do not use the joint-equal age approach, but rather calculate the premium based on the two actual ages. The number of entries in a rate book, under this product design, would be absolutely impossible to deal with, which makes laptop computers indispensable.

There are a great many issues to consider when designing a joint product. First, of course, is mortality. The formulas for the second-death in a two-life status are covered in *Life Contingencies* by C. W. Jordan. The formulas assume independence in the mortality of the two lives. Since the marketplace focuses on married couples or business partners, the assumption of independence is not quite correct. The so-called "lonely hearts syndrome" is of concern, and also, there is the risk of a common accident. The common accident risk is going to be the more significant of the two.

Because the product is so new, there is very little information about persistency. For example, when the product design includes a substantial cash value increase on the first death, there is an opportunity for antiselection. Surviving lives may opt for cash surrenders.

Expenses are another key issue. The product is a complex one and requires special administrative handling. Systems have to be modified or adapted so that the information that's needed on the two separate lives can be retained. Illustration systems become more complex, particularly if the product has the jump in cash values.

Special procedures are needed for the case when one life in uninsurable. Underwriting costs are going to be significant because there are the larger face amounts and older ages.

Paperwork increases. Claims information has to be reviewed on both insured lives. Hopefully, the information on the first death will be received in a timely manner rather than being deferred until the second death occurs. This is particularly important if the first death occurs during the contestable period. Premium levels, on the other hand, are comparatively low. Also, the competitive marketplace is not going to be kind to high-expense providers.

Another question that needs to be faced in developing these products is retention. Some companies believe that a higher retention for the product is appropriate, up to as much as two times their normal retention. However, the key issue is one of total risk levels. This product has low premiums, low incidence of claims, especially in the early years, but the total potential amount of claims is high. An argument could be made that this risk profile calls for lower retention, not higher. Fewer policies, but larger ones, will certainly affect the way the law of large numbers works for insurers and reinsurers.

Ongoing administration expense must be controlled starting at the product design stage. Some administrative issues have been touched on earlier. For example, regulatory compliance that has affected the joint-equal age formula. Regulators have not really addressed the issue of the proper valuation mortality for second-to-die products. There seems to be a conceptual flaw in applying a joint mortality formula to a table that has substantial margins of conservatism. It seems it would be better to apply the joint-life formula to the basic mortality table and then add in appropriate loadings.

Also, there is the contagion factor, which is not taken into account in the formula, and which affects the assumed independence.

Administration in life insurance companies relies on large, complex computer systems that are very difficult to change. The system's needs affect our expense assumptions and they may limit a company's flexibility in designing a product or in bringing it to market quickly.

Also, the underwriters are working with higher issue ages than has been common under single life coverages. Will the mortality experience match our expectations? There is always the strong desire to liberalize requirements and, especially on this product, to accept borderline cases because the day of reckoning is deferred until the second death.

Reinsurance support is a key element in the success of this product. The large amounts and underwriting complexity will make facultative business very important. Because of the steep slope in mortality rates and the comparatively high level of expenses, the reinsurance quote may be structured with net costs in a reverse select and ultimate pattern. The reinsurer with the lowest initial rates may not be the best buy in the long run. And the service and support issues suggest that the low-cost provider may not always be the best choice.

Many companies are developing joint life plans, and some have even begun the process of revising and revamping their designs to meet competition.

Bringing your reinsurer into the picture at an early stage is particularly important for this kind of complex product, where developments continue at a rapid pace. Reinsurers like to work closely with their clients so that the product design will meet the needs of both client and reinsurer and will provide value to both partners in the transaction.

MR. PHILIP K. POLKINGHORN: First-to-die plans are generating quite a bit more press lately, but the sales potential is difficult to gauge. Some sales surveys are being done and the last-survivor market is being tracked fairly closely, but all we really know about the first-to-die market right now is that the product development efforts are very, very high and the interest around the industry varies substantially. I'll talk mainly about product design issues and less about markets, except to the extent that they influence the design.

The key first-to-die markets are the business market and the family market. Within these markets you need to differentiate between the up-market sale and the middle-market sale. The middle-market sale is the old-fashioned first-to-die. The sales process goes something like this:

> The agent comes in and he sits down at the kitchen table, and he pulls out a $50,000 policy for Mr. Smith and a $50,000 policy for Mrs. Smith, and they say, "We can't afford it." So he says, "Well, hang on." And he pulls out a $50,000 first-to-die policy that costs less than the total cost that he was talking about before, and he says, "Why don't you buy this. When the first one dies, you're taken care of."

In more up-market sales, that sort of sales process is not going to work. In the business market, you have a number of partnerships in which they're trying to fund buy-sell agreements. Probably what really got things rolling was the development of first-to-die riders in the second-to-die market. And they have a number of applications there. They can be used to fund the roll-out on a split-dollar case if the first death should occur prematurely, they can be used to help pay up the policy at the first death, or they can be used to pay some estate taxes at the first death. Even though you have an unlimited deduction, it sometimes makes a lot of sense to pay estate taxes at the first death since the rates are graduated. Thus you can pay some estate taxes at lower rates.

I'd like to introduce a number of approaches that different companies have taken to design the first-to-die product, and then talk about each one in a little bit more detail, and go into some of the pros and cons.

The first approach that some companies take is very simple; the other-insured term rider is based on a desire to insure life A as well as life B. There are some reasons why you wouldn't just follow that approach. But if you're looking for something very simple, you can package this option, and it fits existing administrative systems. One of the key problems with this option is that the amount at risk is level.

Other options include true joint and first-to-die plans that pay only on the first death out of a specified group of lives.

Just adding an other-insured rider is simple to administer. However, it's more expensive in the long run, because the net amount at risk on the additional insured stays level. Also, you may encounter 7702 stumbling blocks to some of the funding patterns that you want to use. However, it does have an advantage in that it can handle varying amounts on each life, and it can handle multiple lives fairly easily. It also has the advantage that it anticipates continuation of coverage on the first death. The term riders would usually be convertible, and upon the first death, additional continuation of coverage could be purchased. The disadvantage is that it doesn't have the sizzle; it isn't what the field forces are asking for.

The second approach would be to have an other-insured rider, but design it so that the net amount at risk for the other-insured rider goes down as the cash value of the base policy went up. There are companies who have tried this. It does reduce the cost, over the long haul, to the policyholders, because they're buying a decreasing amount of coverage on the second life. And it can generally be done with relatively quick systems changes. It should also provide for some limited continuation of coverage. The term rider, even though it's decreasing term, should still be convertible. So the remaining life does have some guaranteed insurability.

A true joint-life policy would be one that pays only at the first death, and then the game is over. Or is it? In designing this product, there are a few questions to answer. Should it be a fixed- or a flexible-premium product? The last-to-die market is currently dominated by participating contracts. However, all the participating contracts have the paid-up-additions rider and the term option, which allow a great deal of flexibility in premium and face amount combinations. If the target market is the middle-income family market, a fixed-premium design could actually be an advantage when a comparison is made. Two times the standard, single-life, fixed-premium product premium is more than the joint and first-to-die premium. This process is a bit more cumbersome if you're doing this simple, package sale with the flexible premium product, since the premium can be varied all over the place. It can be done, but it's a little bit more cumbersome.

Finally, in the business market, more flexibility is needed. Whether you offer a flexible-premium universal life design, an excess-interest life design, or a participating policy as the basic chassis, you're going to need the flexibility to have flexible premium/face amount combinations. This design seems to have more sales sizzle and is attracting more attention in the marketplace.

How many lives you need to have will depend on the marketing focus. If the focus is on that family sale, probably only two lives are needed. A number of the products seem to concentrate on two lives. If the focus is the business market, it would be useful to have four to six lives; possibly even up to eight lives. But if there are several lives, say in a business situation, and the policy is designed to fund a buy-sell agreement, you have to account for the varying levels of interests in the business. Should the policy provide for equal amounts or should you have a policy that's flexible enough that you could have different amounts of coverage should "life C" die first, as opposed to if "life A" dies first? One approach to this would be to have a base policy

that offered an equal amount on the first death of all the lives covered under the policy, and then use the other-insured term rider to add insurance on those who might have a more substantial interest in the business.

One of the problems to look out for in designing a joint and first-to-die policy is the surrender charge limitations. The expense allowance caps, which vary depending on what state you're in and what type of product you're selling, are generally $60 a thousand. Exceptions include $60 per thousand amortized one year in Indiana and $50 per thousand for universal life in New York. These caps are reached more quickly when you have two- and three- and four- and eight-life cases, since these are absolute caps.

Until you reach the cap, the limit is a function of a net premium, which will vary based on the number of lives. But when you hit the cap, it doesn't vary just because you've got a 12-life, first-to-die case. Note that the premium's going to get bigger with more lives. Chart 1 demonstrates the magnitude of the savings of a two-life versus a combination of single life policies. Note that it ranges anywhere from 30-40%. At some of the younger ages, there doesn't seem to be much of a savings, but there's a great deal of cost sensitivity there. If there is a 25% cost differential, not many companies can afford to have rates be 25% different than competition at these ages. And at some of the older ages, the cost differential is a bit more substantial.

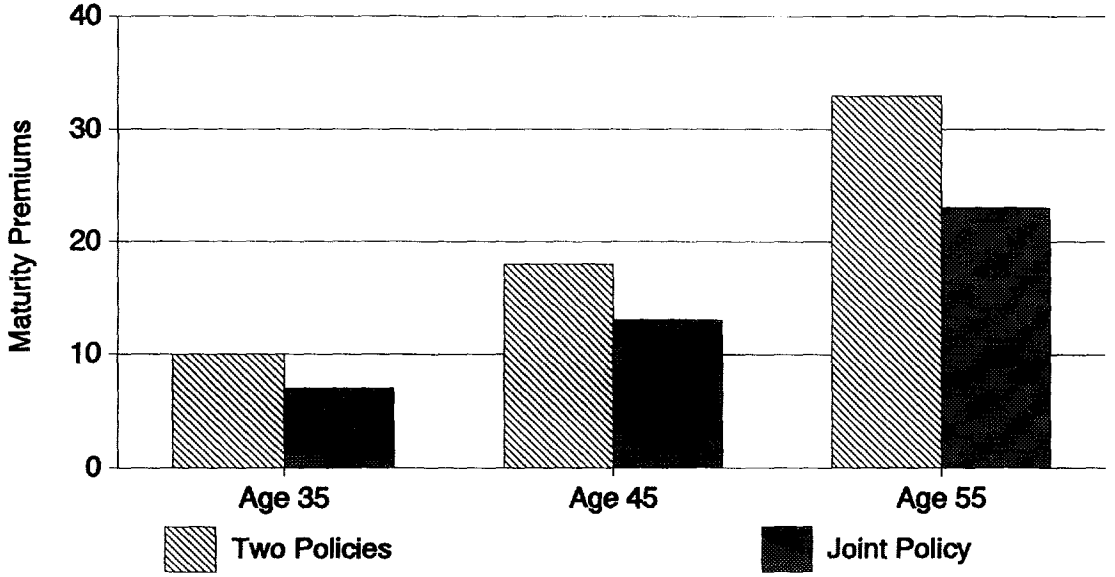
The pure, basic first-to-die plan offers coverage at the first death, and then the contract is over. There are a number of riders designed to add additional benefits. Guaranteed insurability riders state that the remaining lives have guaranteed insurability. There could be substitution of insured lives. Suppose you have a five-life case, and all of a sudden the business adds a sixth partner. Can you add somebody and just reconstitute the policy? Suppose you have a five-life case and one partner decides to leave, and they buy him out, but don't use the policy. Can you take a five-life down to a four-life and reconstitute the policy? What kind of continuation of coverage can you provide to the remaining insureds? There are a number of issues surrounding the reconstituting of benefits for the remaining lives. What type of commissions are to be paid on the reconstituted policy. Will the continuation of the policy be a point in scale continuation, or will there be some original age factors used? To repeat, there are number of issues to decide.

Some of the people in the last-to-die market, rather than go to first principles and calculate rates based on the actual ages and risk classifications of the insureds, will use joint-equal-age rules. For example, a person 57 and another person 52 have essentially the same mortality characteristics as two people who are exactly 54. There are a number of states, namely Texas, New Jersey, and Pennsylvania, that have requirements on the values that would have been produced had first principles been used. In second-to-die policies, however, there is a trend toward using first principles for that reason.

For first-to-die plans, there has not been the same degree of sensitivity on the part of the states to joint-equal-age rules. There also is an advantage for first-to-die plans in that when the committee that developed monetary values for the 1980 CSO

Joint Life Cost Advantage

Comparison of 8% Maturity Premiums



developed their report, they did address joint and first-to-die plans. Thus, there is a published joint-equal-age table for first-to-die plans.

It is inadvisable to use the joint-equal-age rules that were used to develop the last-survivor life plans for the first-to-die plans. The risk characteristics are very, very different and the rules for a first-to-die plan will be totally inappropriate for a last-to-die plan, and vice versa. Talking about five or six years difference in age probably doesn't make much of a difference, since the margin for error is small. But with larger differences in ages, the rules should be much different.

An additional concern is substandard ratings. Substandard rates are easier to handle for a formula-driven universal life plan than some other types of plans. Plus, substandard rates are a little bit more complicated on fixed-premium plans if you're contemplating more than two lives.

And finally, there is reinsurance. Some of the reinsurers on first-to-die plans have been adding single-life reinsurance rates together. For example, for three lives, aged 47, 42, and 50, a Yearly Renewable Term table is used to determine a rate for each of the three, and then all three are owned. Others are developing customized rates by product. Probably the greater reinsurance issues, though, are on these postissue changes, when a life is added, dropped, or when issuing guaranteed insurability.

Next year there will be a better picture of joint and first-to-die sales. When talking about the 1% or 1.5% of the current population that can really be thought of as serious prospects for second-to-die insurance, you are really talking about the dual-income family. They may not be very wealthy, but they're both making similar amounts of money, and they really need coverage at the first death. The 1950s type of family (where the husband works and the wife stays at home) will not need first-to-die coverage. But there's an increasing segment of the population with the characteristics that might be right for this type of product.

MR. G. THOMAS MITCHELL: Where would you go to try to develop some feeling for the simultaneous death or the lonely heart effect?

MS. MARLER: I have seen some formulas for the lonely-heart syndrome which assume basically an increased probability of death immediately after the first one dies. And the effect of that, when you calculate it out, is very, very small. I don't have any statistics for the simultaneous death. You could analyze it by looking at the probability of an accident, and also combine that with the contagion factor, that is, the probability that both of them will be there. But I don't really have any basis for how you would do that, except just reviewing experience.

MR. POLKINGHORN: There are nine or ten studies on mortality after bereavement. Some of them you can get through the SOA office. Most of them seem to indicate that the extra mortality after the death of a spouse is of greater significance for males than females, and tends to be heavily concentrated in the first six months following death, and then declines rapidly after that. I'm aware of one company that developed mortality factors by taking the data for married people versus single people, saying that as long as the two are together, they both have better-than-average mortality, and as soon as one goes, they have some other pattern of mortality. This is very

complicated, and you can spend a lot of time on it. I think there are a number of companies which are using a very small load, because as Carol says, the impact tends to be relatively small.

MR. MITCHELL: I have a second question: There's a recent IRS ruling, I think it was with respect to corporate-owned life insurance, saying that when you substitute an insured, it is such a basic change that it does not qualify as a tax-free exchange. And I'm wondering if that is seen as a threat to first-to-die or second-to-die policies.

MR. POLKINGHORN: I think there are a couple of first-to-die policies where some of the changes are being structured as a totally new issue, to comply with that.

MR. O'CONNELL: Actually, that revenue ruling was not unexpected. I don't think anyone ever thought that the substitution would qualify as a tax-free exchange. There are only a few insurance companies, to my knowledge, or a few agents that sell actively in the corporate-owned life insurance (COLI) marketplace, and use the idea of the transfer of insurance as a marketing ploy. It's such a negligible amount of agents, and negligible amount of sales, that it's not a factor. So from a marketing viewpoint, I don't even see the necessity to bother with it.

MR. ANTHONY WALTER BOSTON: There is one additional study which I did come across on the broken-heart syndrome, which is in the *British Medical Journal*, but that was about 10 years ago. I haven't seen anything more recent than that. Although that article was old, I did find it quite interesting, and the conclusions were much the same as was said earlier.

MR. CHARLES K. B. HAMILTON: Which is more popular in the marketplace, the joint-age calculation, for second-to-die, or the exact calculation?

MR. POLKINGHORN: Given that the top five companies in the last-survivor market control 60% of the market, and two of the top three are exact-age products, I would have to say that based on sales, the exact-age product is more popular in the marketplace. Although, there is at least one company in the top five with a joint-equal-age product.

MR. HAMILTON: Would you attribute the greater popularity to that group because of the timing difference of the charges? We were developing a joint-last-to-die, and used (this is the Canadian market) the equivalent-age calculation. Our U.S. counterparts developed their product with the exact-age calculation because the joint-age overcharges in the mortality charges in the first few years, and then it catches up later. This is tying in with what Carol mentioned, that some people are motivated by price versus these other things, or where they want cheap versus service and other benefits. Are the ones that are at the top going after people on a price basis, like a commodity product, as opposed to services and other benefits?

MR. POLKINGHORN: I don't agree that a joint-equal age necessarily overcharges in the early years and undercharges in the later years. When testing for all the differences in ages, for example, 0-10 years, one age will be a little below standard profit, but the next combination will be a little bit higher.

Since you have to pick integer joint-equal ages, you're always going to be charging a little bit too little or a little bit too much. But I don't think it's consistently too much in the early years, and too little in the later years.

MR. HAMILTON: Regarding the timely notice of the first death and the contestability of claims, is there anything built into the contracts that specifies when notification of the first person's death is within a certain time frame, or is the right to contest within some certain period reserved, regardless of when the death is reported?

MR. POLKINGHORN: Some companies put it in the contract that you're supposed to notify them of the first death. Suppose the first death occurs exactly one year after issue, and there's one year of the contestability period remaining.

Assume you don't receive notification of that first death until 15 years later. Those companies are maintaining that they still have one year left to investigate and contest.

MR. HAMILTON: Now, to take your 15-year example to an extreme. It could be 50 years, making it difficult to contest, regardless of how much time you had.

MS. KATCHER: Another thing that some companies, especially companies that have a lot of sales, are doing is sending out a notice to the policyholder before the end of the two-year time period, reminding policyholders that if they have had a death claim, they are required by the contract provisions to submit notification. It is better for the insurance company to have had that second notification.

MR. O'CONNELL: And there are also computerized ways to check up, to make sure people are still alive.

MR. HAMILTON: I had one last question, for Phil. You talked about published joint first-to-die values. Where is that published?

MR. POLKINGHORN: There's a report prepared by the committee to develop monetary values for the 1980 CSO, so it's an old report. One of the sections of it deals with joint products. And while it doesn't specifically say so, they're talking about joint and first-to-die products. There is a joint-equal-age table contained in that report.

MR. CRAIG C. CHUPP: On the risks for simultaneous death, our company did a rough study on the probability of both insureds being killed in a simultaneous accident. We looked mainly at automobile accidents, and came up with something on the order of five extra deaths per hundred thousand as being reasonable. But we thought that it was very conservative.

Also, I would like for anybody on the panel to comment on some of the riders for second-to-die policies, such as a split-option rider, and whether you've seen any success among companies selling a lot of that rider. Also, do the features of that rider include an option that would allow the policy to be split on first death, and into two single-life plans?

MS. MARLER: The trend I've seen on the policy split option is to make it a part of the policy, rather than an optional rider. And this is being driven by the competition, i.e., the other companies have it so we need it too.

MR. POLKINGHORN: And that's in direct opposition to the advice I've been giving all my clients. My advice has generally been to separate it out, have it be a separate rider, and charge for it. I'm not as concerned about the sales success, because I don't think you want to sell the rider. The purpose of the policy split option is to overcome an objection -- "What if this happens?" If the objection doesn't arise, I don't think you want it there. So, my advice has generally been to have it as a separate item and charge for it, rather than have it on every single policy. There are some companies who have it as an automatic part of the policy, but they require evidence of insurability for the split to take place, so it's sort of an innocuous benefit. It says that if you can qualify for new insurance, in this event, we'll sell it to you.

MS. MARLER: One other variation I've seen on it is, rather than having the policy be split 50-50, that the insured can choose, at issue, some other percentage split, 25-75, 40-60.

MR. CHUPP: Also, with term riders, our company has a par-type design, and we've wrestled with how to structure the term rider. There should be funds available to pay the term charges in the first year, assuming that dividends were being used to pay the term charges at the end of the year. We finally came up with a design that was similar to buying both term and paid-up additions, and those paid-up additions were used to pay for the term charges. I was just wondering what kind of designs that you have seen the term riders take; i.e., level or a term rider with cash values, and how has that been accomplished? How are the term costs being paid for in the first year?

MR. POLKINGHORN: I guess I've seen a pretty even mix between companies that have developed term riders that I would call premium-driven, which is what I would call yours, where the premium is a little bit higher, but it buys a combination of term and paid-up insurance; and those where the term is dividend driven, and in the dividend-driven term, you pay out-of-pocket premium for term for a short time until the dividends become large enough to pay for it. Those companies, generally, also have a paid-up additions rider, so they could build the premium-driven term if their agents wanted it.

MR. CHUPP: Many of the last-survivor policies have a vanish option, because it is very popular to get the smallest outlay of premiums. I was wondering if you could comment a little bit about before and after vanish option, where it would allow premiums to restart after vanish, or allow the insured to pour in an amount after vanish, say if they needed more money in the policy to keep their insurance from going down. Also, is that a conflict? If you have a fixed-premium design, is there a conflict with being a flexible-premium policy, and at what point do you become a flexible-premium policy?

MR. POLKINGHORN: First, there's a difference in company practice between the one-time pour-in and continuation of regular premiums. Suppose you've got a paid-up additions rider that calls for recurring premiums, and you've signed up to pay seven of

those because you're going to vanish in seven years. Then, eight years later, you want to dump some more in. I think most companies, at this point, would require evidence of insurability to do that, because it could increase their amount at risk. If you're talking about somebody who's vanished and just wants to pay the standard, rate-book premium again, I don't think there's a way you can actually stop them, on a true par whole life. But I think most people are pretty concerned about pour-ins after issue and evidence of insurability.

MR. CHUPP: Where do you draw the line between flexible and fixed? How about a policy that's filed as a fixed-premium contract, that has an option to pour-in an amount after vanish? Is that walking over the line of being a flexible premium contract? What if the insurer has the option of limiting how much can be poured in, or as long as the death benefit does not increase, for instance? On our plan, we're looking at letting the insureds pour in an amount that will allow their death benefit to stop decreasing, but they will not be able to pour in an amount that will allow their insurance to increase unless they provide evidence. I was just wondering if there are any problems with that being a flexible premium contract?

MR. POLKINGHORN: No, I haven't encountered any. I know that, for just all generic products with those types of features, New York, New Jersey, and Pennsylvania have special filing guidelines. But it's not unique to survivorship. It could be single-life products that have that type of flexibility as well.

MR. O'CONNELL: Note that a universal life policy doesn't really vanish. It's just a function of how close cash value is to the interest rate assumptions. There is a certain amount of flexibility there which would allow you, in later years, obviously, to dump in whatever amount is necessary to carry the policy. But, with universal life, I don't think anyone is going to use the word vanish, because there really is not a vanish. It's just a short pay, or a pay-up, or a dump-in type of a technique.

I think the most popular rider or a rider growing in popularity now with the second-to-die policies is the double-up rider or estate preservation rider. This provides that should the two insureds die within the first four years, 2.2 times the face amount of the policy would be paid. This covers the possibility that the policy would be included in the estate if the insureds die within the first three years.

But there are limitations of how much of this you can do. It's almost a form of malpractice insurance, if you will, in case the insurance is written before the trust is put into effect. Because if you do transfer a policy into a trust, then you face the three-year rule.

By having that double-up option you have given the agent and the attorney a mechanism where they can allow the insurance to be written first, and then write the trust and put the insurance in the trust. They can still be assured that the net amount of insurance that they need to cover the estate taxes will be there even if, in fact, the policy is included in the estate in the first three years.