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GROUP PENSIONS

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Non-Participating Annuities

1. What are the attractions of this route for a terminating plan? What are the alternatives?
2. What are the attractions for a continuing plan?
3. What is the current availability of this business? What is in prospect?

High Interest Guarantees

1. How significant has this business been?
2. What are the pros and cons for the buyer? For the carrier?
3. What is the regulatory treatment of this business? What is in prospect?
4. What is the future of this business?

MR. ROBERT M. CHMELY: One of the attractive characteristics of non-participating annuities today is the high interest rate included in the purchase price, currently ranging from 8% to 9%. I want to address the question of when a non-par annuity might be an attractive alternative for a terminated plan.

First, one must determine the value of the plan assets and the value of the non-forfeiture benefits to be provided. These valuations are based upon criteria supplied by the PBGC. If the value of assets is equal to or greater than the value of the liabilities, a state of "sufficiency" exists.

On a plan's voluntary termination, that is, one initiated by the plan trustees, and where assets are sufficient to provide non-forfeitable benefits, a non-par annuity is an alternative. In fact, the PBGC has indicated a preference for annuity options and may require that an annuity option be available. The plan administrator will be relieved of the obligations of tending the assets of the plan and making payments to beneficiaries. The plan participants are relieved of some difficult problems that might result if a lump sum distribution were made. For example, a lump sum distribution equal to the present value of annuity benefits is no guarantee of a lifetime income.

Transferring this responsibility to an insurance carrier can ensure that the annuity benefits will be realized.

There is a problem in this test of sufficiency that I mentioned earlier. First of all, sufficiency is determined using a current valuation and pricing assumption. That determination is no guarantee that a lump sum distribution will provide a lifetime income. It is no guarantee that prescribed benefits can be purchased for the price indicated in the PBGC test. The current set of purchase rates was published by PBGC a year ago, and was generally in line at that time with those of companies writing non-par group annuity business in the United States. I understand that current rates used by the major companies are somewhat more expensive than those published late last year because interest rates have declined from levels of late 1975.

I would like to discuss briefly the alternatives to non-par annuities. Obviously a plan needs cash to buy non-par annuities from an insurance company. Conversion of existing plan assets into cash may not be an advantage depending on the economic situation. If much of the assets of a plan are invested in the stock market and the market is high, there may be some advantages to liquidating. Conversely, if the market is low, a forced liquidation is costly to the plan participants.

Because there is no guarantee concerning the value of the assets available at the time of liquidation, alternatives should be kept in mind. One of these is called the wasting trust. In effect, the assets of the plan would be tended by a trustee. The trustee would continue to invest the assets and pay benefits as they become due. Other alternatives include the lump sum distribution, a rollover to an individual account plan, or a rollover into another qualified plan. If the benefits have been funded through individual insurance policies, there is the option to take a non-forfeiture paid-up benefit. In addition, there may be the opportunity for a merger or consolidation into another existing qualified pension plan. Finally, there is the possibility that the PBGC itself might take over the assets of the plan and pay the benefits due.

MR. HARRISON GIVENS, JR.: We should underline one of these points. If the assets of the terminating plan are not sufficient by PBGC standards, the PBGC is obliged to accept the responsibility for covered benefits, using the plan assets plus whatever it can recover from the plan sponsor. The plan sponsor can walk away from the plan even if no regular carrier will bid for it, so the PBGC is then a carrier of last resort. But if the plan is sufficiently funded by PBGC standards, the PBGC is reluctant to accept the plan, and there may be no carrier to take the plan at a comparable price.

MR. A. CHARLES HOWELL: Non-participating annuities have more attractions for a terminating plan when it defines benefits rather than contributions. For a continuing plan, the greater attraction would be for the defined contribution plan.

There, the question is how far will the participant's distribution go. A higher guaranteed return is more attractive than a lower guarantee that can be increased by future dividends. There has been an enormous demand for non-participating annuities in connection with profit-sharing distribution, especially during the stock market decline. The sponsor of a defined contribution plan is interested in helping his participants in the disposition of their distributions. However, the plan sponsor is restrained from making annuity settlements available, now that the IRS requires any plan with an annuity option, even a profit-sharing plan, to have a qualified survivor distribution as the standard settlement. That would upset a profit-sharing plan and complicate administration dreadfully. As a result fewer of the old profit-sharing plans are adopting an annuity option now, and some have removed an existing annuity option.

For the defined benefit plan, the non-par annuity can be an attractive vehicle for the plan sponsor under special circumstances. For example, if an ongoing plan uses a 5% or 6% interest assumption and an insurance company will take the obligation for retired lives at 8% or 9% interest, there is an immediate gain. The employer should first examine alternative investments, and take non-par annuities only if they are a better investment. Even if non-par annuities are the best investment at one time, they may not be at another time, so the decision to use them cannot be made once for all time.

MR. GIVENS: If the employer has the same investment opportunities as the insurance company, the purchase of non-par annuities simply anticipates the investment gains otherwise available. As well, there is a certain risk premium in the non-par rates. If the plan does not have access to as good an investment return as the insurance company, the plan sponsor actually profits.

Usually the motivation for non-par annuities for an on-going defined benefit plan is not simply investment-oriented. If you can trade for \$16 million a liability for existing retired lives that, using a 6% assumption, was \$20 million, you have a \$4 million gain. If gains are taken immediately, the current year's contribution is reduced by that amount or alternatively gains may be spread over a number of years. When employers are looking to control their rising contributions, that can be quite attractive.

Another interesting motivation may arise from unrealized losses on stocks and bonds. If these investments are sold the resulting loss will serve to increase contributions. However, if the trustees realize a gain of \$4 million from retired lives, they can cover a realized loss of \$4 million from disposition of assets, the plan can dispose of poor investments, and plan contributions are unaffected whether gains are taken immediately or spread.

MR. CHMELY: Note that selling plan assets and reinvesting them in an 8% bond is equivalent in investment results to re-investing in non-par deferred annuities, if their implied interest assumption is also 8%. Also, regarding deferred annuities, if ultimate retirement benefits for a particular individual are paid by several carriers, there can be substantial duplication of expense.

MR. GIVENS: I quite agree. I have not seen a block purchase that includes deferred annuities for an on-going plan. Indeed, for a company writing participating business, New York State does not allow non-par deferred annuities except for terminated plans.

We have discussed the pros and cons of non-par annuities for the plan sponsor. What about the risks for the carriers?

MR. YUAN CHANG: The risk in non-par annuities is long-term in nature. In this competitive market, there generally is not much mortality margin in the premium rates. For immediate annuities, usually issued at or near retirement age, the risk is not great. Even if a medical breakthrough occurs, it is unlikely its impact on older lives will be significant. For deferred annuities on younger lives, the risk is much greater. In any case, not much profit can be expected from this source.

The expense risk is real in view of the current inflationary trend. On the other hand, economies of scale, more sophisticated technology, and higher interest earnings on the expense reserves all tend to soften the impact, if not altogether eliminate it.

Investment risks include the credit risk of default of interest and/or principal for the underlying securities, the reinvestment risk that money reinvested will not be sufficient to support the premium assumption, and the capital risk that cash payouts occur in years of higher interest rates. Credit risk should be provided for in the interest assumption used for rate making. For immediate annuities, the last two problems are minimal since there is little reinvestment risk or capital risk. Deferred annuities involve all three risks, particularly during the accumulation period.

Because of regulatory demands, this type of business generates a large strain on surplus. At a 6% valuation interest rate, it is 20% to 25% for immediate annuities and as high as 40% or 50% for deferred annuities.

Why do carriers write this business? For one thing, while there may not be much profit from each specific source, proper market timing can mean a sizable overall profit margin in the premium rates. Also, the demand in the market place is high, and so enough business can be written to ensure a well-diversified portfolio. Successful marketing in this area results in additional assets, which not only mean greater prestige for the carrier but also produce a larger expense base with resulting economies of scale.

Unfortunately, because of the high strain on surplus, the capacities of the major carriers are severely restricted. From time to time, particularly toward the end of calendar years when surplus allocated for this purpose is used up, the surplus dries up and quotes cannot be obtained at any price.

MR. CHMELY: On the question of mortality risk, there are situations where the population mix can become important.

For example, people who retire early might have 35% higher mortality, so if a block of business has an unusually heavy proportion of people who do not retire, there could be anti-selection. More generally, pricing presents difficult actuarial questions when participants choose among benefits that are not actuarially equivalent; for example, subsidized early retirements or subsidized optional form provisions.

Now, turning to the question of the market for non-par annuities, I estimate current demand for non-par annuities for terminating plans at over \$200 million per year. With an assumption of 8% to 9% interest in purchase rates, the reserve will exceed the purchase price by 20% or 25% for most immediate annuities. In states still with a 3-1/2% valuation standard, the excess might be 30% to 35%. The reserve for each dollar of deferred annuity consideration is still greater.

A conservative estimate of the surplus strain to be caused by considerations of \$200 million a year for terminating plan business should be \$50 million a year. The question is whether carriers have the capacity to accept this additional temporary surplus strain in addition to the similar strains they incur under regular maturity-funding business.

There is an interesting constitutional issue arising from a difference in the priorities established by ERISA and the PBGC for allocating the assets of a terminating plan, and the priorities that may have been written into that particular plan. Can Congress rewrite contracts? The question is broader in the case of a negotiated plan, where there is not only a plan contract but a bargaining contract that adopted the plan, including its allocation of assets on termination. If the priorities established by the plan differ from those required by ERISA, the insurance carrier may not want to get into the middle of long-term litigation to determine which set of priorities should be followed. This is another impediment to the free market on non-par annuities.

MR. GIVENS: As mentioned earlier, the PBGC has in effect annuity rates they will stand behind, based on their analysis of the value of annuity benefits. These rates were in line with commercial practice when they were established, but since then prices have drifted upward, reflecting somewhat lower long-term interest rates today. Further, the capacity problem has meant that some carriers are not even in the market any more. What is the proper current value of benefits on a terminating plan? How good are non-par annuity prices as a measure of that value?

MR. HOWELL: Our market-oriented approach suggests that the current value of future benefits for a terminating plan is the price required in the open marketplace for the annuity. These rates provide a useful measurement of the value of benefits, but it is far from a perfect one.

For example, at times the most competitive carriers will be completely out of the market. The ones left in the marketplace would want business at a favorable price, and may stay in the market only on those terms.

As well, there is usually a lag between the time a carrier quotes and the time a plan is terminated, and the carrier normally reserves the right to revise the quotation if that lag is too long and investment conditions change.

MR. CHMELY: Note that many of the terminating plans are small, and the rates published by PBGC were in line as of late 1975 with commercial rates for large plans. A small plan should probably have a considerably higher expense loading, but this is not recognized in the PBGC rates.

MR. HOWELL: One might ask whether a non-par annuity purchase facility ought to be available under a continuing defined benefit plan. Suppose the plan offers the participant a cash option at retirement. If his annuity is valued at, say, 5%, he could take that cash, buy a non-par annuity that uses an 8% or 9% assumption and greatly increase his pension. This approach could change the plan fundamentally, making it in effect a defined contribution plan for those who use the cash option to their advantage. The result could be widespread discontinuity in the provision of plan benefits and the continuity of funding.

MR. GIVENS: That is a painful situation, and not uncommon in small plans, but it is caused by the presence of a cash option, not by the use of a non-par annuity.

MR. PAUL A. CAMPBELL: Would the surplus strain be helped by using a subsidiary to write non-par business?

MR. GIVENS: The subsidiary would have the same surplus because it arises from the statutory basis for calculating reserves. Worse, the subsidiary does not have the parent's capacity to generate surplus, so there would also be continuing transfers from the parent's surplus to the subsidiary.

MR. CHANG: In some situations a subsidiary may help. For example, if the parent operates in all states and continues to value its new business at 3-1/2%, a subsidiary established in a state where 6% is permitted can help, since the surplus required at a 3-1/2% valuation interest rate can be double that at 6%.

QUESTION: Can plan trustees use existing insurance or annuity contracts to buy non-par annuities?

MR. GIVENS: The trustees could very well consider cashing everything in and using the cash to cover benefits as far as possible. However, unless it is a rather large individual policy pension trust, they would probably be better off to use the non-forfeiture value of the policies than to cash them out and incur a new set of loadings. If the individual policy pension trust is large enough to get a favorable result on a group basis when it terminates, it should have been graduated to a group basis even earlier.

MR. CHMELY: If the plan brings cash into the marketplace, each dollar is worth a dollar and the plan will get a current price quotation.

If the plan stays with the existing carrier, it is likely to be quoted a price which reflects the underlying yield on the assets already held for the particular group contract. So the prices quoted may be quite different, but if they were reduced to a market value basis, they should be equivalent.

MR. GIVENS: Turning now to the subject of high interest guarantees, what does that expression mean today?

MR. CHMELY: First let me say what we do not mean. We are not talking now about non-par annuities, deposit administration contracts, immediate participation guarantee contracts which contractually credit whatever investment return is earned, or even contracts with a guarantee of a high rate for only a year or less.

We are talking about accumulation of funds at relatively high guaranteed interest rates for a relatively long period of time. The most common form of high interest guarantee is issued in connection with profit-sharing or thrift plans. The guarantee is given for a period of, say, five or ten years, and the accumulated book value with interest, is payable at the end of the guarantee period. One fairly common variation is that a different guarantee is given for different years' contributions. Some guarantees specify an automatic rollover of a portion of a year's contributions into the current, open account, and specify a new guarantee for that.

For retirement plans, these guarantees usually have one of the following features:

- (a) a single deposit, with repayment in a single sum at the end of a stated period, say five or ten years;
- (b) a single deposit, with repayment in installments over a period of years ranging, say, from five to twenty years, and sometimes with repayments commencing after a deferred period of five or ten years;
- (c) a series of deposits over the first, say, three to ten years, followed by periodic repayments over a given period, often ten years.

Because the deposits made under these guarantees are large, the terms are often hand-tailored. If a lump sum is payable at the end of a given period, there is usually provision for offering terms at which the accumulation can be re-deposited in a new agreement at the end of the first agreement's term.

The interest rate may vary depending on the duration of the agreement. There may be a floor specified in the contract for the interest rate to be guaranteed for subsequent years, e.g., the contract may guarantee 8-1/2% or 9% the first year, with a stepdown in the guarantees for subsequent years at, say, 1/2% intervals for each year.

On premature repayment there are a variety of provisions. Some of them produce a market value, generated internally by the insurance company or related to some bond index. In some instances a premature repayment is based on a lower guaranteed rate defined at the beginning of the contract term.

Expenses are collected in a variety of fashions. There may be a flat charge, plus a certain number of basis points against the guaranteed funds. Other contracts provide for a percentage of assets, or reduce the guaranteed interest rate equivalently. Still others charge a flat fee.

MR. CHRISTOPHER S. MOORE: The following chart shows the high interest guarantee products now being offered in Canada for larger pension plans. This was a very rough comparison put together by Bill Osenton of Canada Life and myself, based on discussions with a number of Canadian companies concerning their guaranteed deposit accounts. The table covers seven basic characteristics of these contracts. There are other aspects that would be considered in making a detailed comparison of these accounts, but for purposes of a general discussion, the table has more than enough information.

Under "Model", we have shown the number of years over which an interest guarantee is provided. In most cases the guarantee is on a declining fund balance with reinvestment in future years at interest rates in effect in those future years. The guarantee continues on at least a declining balance, over a period ranging from 5 to 20 years, with an increasing tendency for companies to use a 5-year contract to compete with the Canadian Trust Company guaranteed investment certificates (G.I.C.'s). In all cases but four contracts, F,G,K and M, the basis used is the declining balance. Contract M is a 20-year bond type of arrangement, under which the balance does not reduce each year. That fact is reflected in the lower interest guarantee being offered there.

Interest rates are generally higher than the U.S. interest rates previously discussed by the panel, with current rates between 9.3% and 10-3/4%. In most contracts, the basis is not specified, and there is no guarantee that the current basis will continue to be used. Terms for cashout are surprisingly similar and illustrate how these companies are protecting themselves against the risk of asset depreciation. In most cases the option is either a rollout of payments over the period of years of the contract, or a present value calculation using the current interest rate. Where interest rates are relatively low at the time of cashout, some contracts limit the amount of appreciation that will be given.

With a few exceptions, "Charges and Commissions" tend to be minimal, with costs presumably being covered by interest margins. Where a percentage of the fund is charged each year, the rate usually grades down as the fund grows in size.

In some cases commissions are flexible, with the exact amount depending on the amount of effort expended in placing this investment contract.

In all cases but one, the annuities can be purchased from any insurance company with no penalty. All provide for a discount if the annuity is purchased from the life insurance company providing the investment contract.

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GUARANTEED DEPOSIT ACCOUNTS - CANADA

<u>Contract</u>	<u>Model</u>	<u>Interest Rate</u>	<u>Interest Basis</u>	<u>Terms For Cashout</u>
A	10 year	10.51% Oct.1/76	Previous 12 month weighted average	10 year rollout or P.V. Limits on appreciation
B	20 year	10.58% July 1/76	Previous year	20 year rollout or P.V. Limits on appreciation
C	15 year	10.35% 1976 est.	Current year	Formula approach Full appreciation
D	15 year	10.41% 1976	Previous calendar year	15 year rollout or P.V. \$2,500 surrender charge No appreciation
E	15 year	10.77% 1975	None specified	15 year rollout
F	5 year	10.55% Oct.1/76	Related to G.I.C. rate	5 year rollout or P.V. No appreciation
G	5 year	10.25% Oct./76	Set each month	5 year rollout or P.V. Full appreciation
H	15 year	10.25% Oct./76	None specified	15 year rollout or P.V. No appreciation
I	15 year	10.125% 1976	None specified	15 year rollout or P.V. No appreciation
J	15 year	10.3% 1976 est.	Current year	15 year rollout or P.V. Some appreciation
K	5 year	10.25% Oct./76	Conv. mtge - 1.5%	Lower of book or market value No appreciation
L	10 year	10.25% Oct./76	None specified	Lower of book or market value No appreciation
M	20 year	9.30% Oct./76	Bond index	Present value approach

DISCUSSION—CONCURRENT SESSIONS

GUARANTEED DEPOSIT ACCOUNTS - CANADA

<u>Contract</u>	<u>Charges</u>	<u>Commissions</u>	<u>Remarks</u>
A	\$500 1st \$200 after	Minimal	
B	\$300 per year	.8% 1st \$50,000 .4% next \$50,000	Commissions grade down over \$100,000
C	\$600 + 1/8% yearly	None	
D	1½% of first \$100,000 etc.	Minimal	No shopping for annuities
E	.65% per year graded	None	
F	None	None	
G	None	Minimal	Interest rate applies for 5 years on full deposit + interest
H	2½% 1st year graded	2% graded	
I	\$250 per year	\$500 up	
J	\$100 per year	None	Commission may be added
K	\$100 per year	None	Commission may be added
L	None	None	
M	½%	Minimal	Bond approach

MR. GIVENS: If we could just work out some currency exchange problems with the Canadian Carriers, those 10-1/2% guarantees would look very good in the United States market.

MR. CHMELY: The chart shows that the payout periods are 10 to 20 years, and I think the reason for this is that in the typical general account, whether U.S. or Canadian, there is a rough match in asset rundown between a life annuity or a 15-year certain annuity and the kind of investments that are being used by these general accounts.

There has been a tremendous amount of this high interest guarantee business in the United States recently. It was a major source of considerations received by major U.S. insurance companies in 1975. A poll of six major carriers shows that their total considerations in 1975 for general and separate accounts were \$5.7 billion, of which \$4.7 billion was for general accounts and \$2 billion of this was high interest guarantees. The highest percentage of business in high interest guarantees was 75.4%, the lowest was 8.3%, and the average was 42.5%. Clearly it is a big factor in the group pension business in the U.S. and some companies are in it much more heavily than others.

MR. GIVENS: The press has given considerable attention recently to the pros and cons of these high interest guarantees, primarily for the buyers. Not only the insurance press, like Business Insurance, but investment publications like Pension & Investments, Business Week, and Forbes. Can we deal with that subject?

MR. HOWELL: The investment manager for a defined benefit plan would like a contract under which he can deposit a large sum of money today, earn a yield superior to long-term rates on comparably safe investments and withdraw it without asset liquidation charge some years from now. The buyer would like a five-year term and a single sum return, but the guarantees available would be less attractive than for a longer guarantee period or a spread payout. The market variations try to balance the price the carrier charges and what the buyer receives for the guarantee.

When insurance companies had more opportunities for high-yield investment, they quite often were able to take in pension funds for significantly lower guarantees than were available on their new loans. As the market evolved, however, that spread has narrowed considerably.

Under the defined contribution plan - for profit-sharing or savings plans the motivation is not entirely the level of guarantee but rather the availability of a significant guarantee spread out over time and not confined to just a single sum deposit. In these plans the participants are directly affected by investment results, and have been disturbed by recent declining values of their plan accounts. These guarantees are typically somewhat lower than those on a single deposit. Despite the risk of making guarantees open to future contributions, carriers have generally not shrunk from this market. They feel a greater responsibility to serve this market because there is no comparable alternative available to the plan.

MR. CHANG: In discussing non-par annuities, I referred to their contribution to assets and consequently the prestige, the advantages of being "big", the expanded expense base, and the resulting economies of scale. Those comments are even more appropriate for contracts with high interest guarantees, since the need for surplus to support this type of business is considerably reduced, as will be discussed later.

At this point, a general comment is in order. Group Pension business has very thin profit margins; rightly so since most contract forms do not involve much risk, if any. We justify a profit for any of several reasons. First, a small profit is warranted for just being in business to serve a market which has an identifiable need. For most participating contracts, that is all that can be justified. Second, if capital investment is necessary, then a return on such investment is imperative. For contracts with high statutory reserve requirements, the strain on surplus might be viewed as such an investment. However, surplus buried in statutory reserves has a life of its own in attracting investment income. Any operating profit is in addition to that income. Third, if there is a significant risk, a profit is not only justified but must be commensurate with the risk assumed.

Among all Group Pension contract forms, high interest guarantee contracts with book value payout at the end of the term have the highest potential for profit. The reason: they do involve significant risks. There is the reinvestment risk. The investment income and the principal rolled over must be reinvested. The financial market at the time could be unfavourable. Some contracts involve acceptance of renewal contributions, further increasing the investment risk. Then there is the capital risk. If interest rates rise, there will be a capital loss on the underlying securities. However, if interest rates drop, a gain would result. Some averaging effect does exist, in that unless interest rates in the financial market describe a most unusual pattern, the reinvestment risks can be offset against the capital risk.

The long and short of it is that a risk charge is reflected in the interest guarantees and will ultimately become profit if actual experience is close to expected. For certain types of contract, the profit potential could be over 1% of the fund each year. Additional reduction in the interest guarantees is necessary to cover the credit risk and the risk in guaranteeing expenses.

The risk nature of these contracts implies two things. First a steady stream of business is desirable to give the law of large numbers a chance to operate and to smooth out cash flow. Second, the additional exposure each year should be limited to avoid exceeding a company's capacity to take risks and also to avoid any liquidity problem in relation to the overall cash flow.

It is an interesting contract form, one that gives endless challenge to our technical staff. Yet, it is also a very simple form, one that eases the burden of explanation considerably for our field force. It is not only an attractive contract for the buyers, but a viable one for the carriers as well.

MR. GIVENS: The carrier's risk in making high interest guarantees is real, but frequently misunderstood. Consider a simple example. Suppose an insurance company can invest any amount of money today at 10% and offers to guarantee 9% on current single sum receipts. If long-term interest rates decline, the lower rates earned by the carrier on the investment of interest and repayments may reduce returns below the guaranteed 9%, even on a cumulative basis. For example, suppose next year you can put money out at 9-1/2%, the next year 9%, the next year 8-1/2% and so on. If in 10 years the guarantee comes to an end, the carrier may well have earned less interest than promised. On the other hand, the carrier may be realizing a large capital gain by selling various investments yielding from 10% to 6% in a 5-1/2% environment. Whether the contract produces a gain or loss depends upon the relative strength of the portfolio return and the capital gain.

Which is the stronger of the two? With our monotonic decreasing interest assumption, the answer depends on the duration of the guarantee. With a one-year guarantee, the capital gain from selling a 10% investment in a 9-1/2% environment far outweighs any decline in the portfolio return. With a 30-year guarantee, however, the original 10% investment is long gone; it has been reinvested at lower and lower rates, and when assets are finally sold in a 3% environment there will be a moderate capital gain and a disastrous portfolio return. Armchair reasoning and the marketplace both suggest there is a rough balance somewhere between 10 to 15 years.

In the converse situation, where interest rates start at 10% and then rise to 10-1/2%, 11%, etc. the same opposition of forces holds but in reverse: portfolio return increases but there is a capital loss at the end, and the question again is one of balance.

If the guarantee is open to future contributions, there is the same interplay between portfolio return and capital gains moving in opposite directions, but there is more money being put out for investment in future years. Hence, future new money rates have more importance, and the balance should require a shorter term of guarantee, as the marketplace is telling us.

In actual practice, the interest rate path is not likely to be a simple monotonic rise or fall. It can take many different directions, and unless margins are so large as to be unsaleable, it is easy to show a particular path that will bankrupt you. For a single sum, for example, if interest rates drop immediately after receipt and stay down until just before expiry of the guarantee, portfolio return will be low; if they then rise just before the guarantee expires a capital loss results at the end. U-turns are bad.

A life insurance company would be foolish to issue policies only every now and then. There would not be enough spread of risk. Policies must be issued at a steady rate, with profit required, not on every case, but overall on the average. In the interest guarantee business, if a comparable amount is written year in and year out, no one path of interest rates can harm the entire block.

MR. HOWELL: There is one underlying worry from a scenario we hear mentioned for the future. If you have successive waves of inflation always moving upward, one must be much more cautious about these models.

MR. GIVENS: Yes, that scenario would harm the interest guarantee business, and financial affairs generally. What about the regulatory treatment of high interest guarantee business--the annual statement, federal income tax, and so on?

MR. CHMELY: As you might expect, a business that came to life just three or four years ago has not received uniform treatment from state to state and has not received consistent treatment from the various regulatory authorities. The products being offered are similar, but relatively small differences in contractual terms have led to rather marked differences in regulatory matters. There is considerable room for discussion today about how these products should be regulated.

First, let me discuss the annual statement valuation of these products. Some contracts are being valued essentially as deposit administration unallocated funds, and as such are being held in Exhibit 8. Some are being valued as various kinds of other liabilities and are reported, not in Exhibit 8, but on some line, perhaps line 10, of page 3 of the Annual Statement. The carrier must get approval of his domestic insurance department as to the placement of these liabilities.

One state, New York, has taken the lead in defining how the value of the liabilities should be determined. Last year, the NAIC did approve a regulation modeled after New York's regulation. However, only New York required that the regulation be recognized in the 1975 annual statement. The New York regulation required the companies to recognize the value of the interest guarantees when determining the liability for these contracts. Recognition was given to a somewhat current rate instead of the 6% standard now incorporated in the New York valuation law for annuities. In fact, the New York Department obtained information from 38 insurers and obtained an average "new money rate" for 1974. They allowed each company to use as an interest assumption the lower of this average "new money" rate and what the company actually earned, each reduced by specified margins. For 1975 the formula produced 8.1% for the first year, graded down ultimately to 6%. For most guarantees the liability was 105% to 110% of the amount under guarantee.

Another issue is the SEC treatment of these products. Annuity contracts are exempted by statute from registration with the SEC, and so are separate accounts for qualified plans. What do you think the future of high interest guarantee business is? What will determine that future?

MR. CHANG: The key question here is, for pension, thrift, and profit sharing plans, what alternate investment media are there and how attractive are they at any moment in time?

There is no question that the memory of the equity market debacle two years ago is still fresh in the minds of plan administrators and money managers. ERISA, with its uncertain fiduciary standards, may further encourage caution with respect to equity investments. For that matter, the desire for the preservation of principal also tends to add an edge to these contracts as opposed to other forms of fixed income investment media. So in the next few years, one can forecast a rise in the demand for this type of contract, particularly when the support is not ample.

In the long run, as the total pension market grows, these contracts will certainly attract their proportional share. The share probably will not be constant. In a relatively low interest market, relative to the future, the interest guarantees tend to drop more than the retreat in the financial market because carriers' expectation of capital losses increases in such an environment. Therefore, the relative attractiveness of this type of contract tends to diminish. By the same token, any rise in interest rates encourages an even higher rise in interest guarantees and improves the relative attractiveness of this type of contract.

Since the carriers' capacity will be limited to a certain extent by surplus requirement and by their willingness to expose themselves to risk beyond a self-imposed threshold, the growth of this market will automatically be somewhat constrained and gradual.

MR. GIVENS: Putting it another way, what does the customer expect from common stocks? The Merrill Lynch-University of Chicago study said that random investments from the 1920's to the 1960's would have averaged a 9% return. Now if you can get a guaranteed 9%, why play the stock market?

For an 8% guarantee, the comparison is not quite so clear: the conservative investor may say yes and the optimist may say no. Common stock experience in recent years has certainly pushed people, as long as their wounds are fresh, to value guarantees more. But if long-term interest rates decline to 6% or 5% and common stock aspirations return to 9%, interest guarantees will lose their appeal.

MR. MURRAY L. BECKER: Why do companies tend to withdraw from the interest guarantee business and then return a few months later?

MR. CHMELY: A surplus strain of 5% to 10% of the amount of the deposit account, based on total business last year of \$2 billion, means between \$100 and \$200 million worth of surplus strain last year alone, which does cramp industry's ability to absorb more business. As new business uses up a company's surplus, that company stops making offers, and the market is pretty dry near the end of the year. Then another quota is available for the next year, and the pattern repeats itself.

MR. MOORE: This pattern of fluctuating supply is not as much of a problem in Canada, where there is virtually no surplus strain on guaranteed deposit administration contracts. On non-par annuities, however, surplus strain is comparable to that of U.S. companies - about 25% or 30%.

MR. MAXWELL DOUGLAS THORNTON*: It is difficult to know how close a parallel exists between events in Britain and events in North America. In Britain, if you issue guaranteed income bonds at 10% with a guaranteed surrender value, and interest rates go up to 12%, then if some other carrier offers bonds based on 12%, the policyholder will surrender the 10% bonds at a time when their value is depreciating about 15% and place the money with the new office. The cash outflow from this business will be greater than your capital can support and you will be bankrupted.

MR. GIVENS: That comment is valid in North America as well, but here no contract permits the customer to step in at will and get a book value. In the United States, just as the chart indicated earlier for Canadian practice, either the money is tied up until the guarantee expires, or the calculation is made using a market value.

MR. HOWELL: Our company specially recognized this point. We examined the flow of maturities in future and determined that, if worse came to worse and there were large withdrawals at maturity, we could absorb it out of other resources. Only with that condition would we write that kind of business.

MR. GIVENS: Two different but complementary points have been noted. One is the financial strain of paying more than the assets underlying the contract are worth. The other is the tremendous cash flow problems that can result in a given year.

MR. FRED C. SHER: Does the ERISA requirement of diversification limit the use of interest guarantees?

MR. GIVENS: There is no final definition of diversification, and not likely to be one in the future. However, a sponsor would be unlikely to put half of his plan assets in one guarantee. Some banks and other investment managers have tried to find arguments against a concept that is taking substantial amounts out of their hands. There was an interesting issue of Pension World last spring on the pros and cons of interest guarantees.

MR. HOWELL: The record really speaks for itself. These issues have been covered by plan trustees looking at their fiduciary responsibility in elaborate discussion with their carrier, and they decided that this was the way to go.

MR. WILLIAM H. CROSSON, III: Should a plan take an interest guarantee?

MR. GIVENS: You can describe the consequences of the alternatives, but you cannot say that one choice is right for all people. A carrier that would expect to credit a 9-1/2% new money rate might offer a guarantee of 9%.

* Mr. Thornton, not a member of the Society, is President of The Faculty of Actuaries of Scotland, and is with Scottish Amicable Life Assurance Society, Scotland.

Put this way, the guarantee may not be attractive. But the carrier cannot be sure it will in fact credit more, and if it does the first year it might have bad experience with those investments in a later year, which would be passed on to conventional contracts. What is the value of a sure guarantee versus an expectation of somewhat more? Term insurance and permanent insurance may be actuarially equivalent, but is one always better than the other? One company will make one decision and one company will make another, and both can be right. Some companies are 100% in stocks, some are 100% in bonds, and most are somewhere in between.

Now that we have discussed the issue of surplus strain as it affects annuities and interest guarantees, what is going on in the effort to tackle that problem?

MR. HOWELL: This is really a question of what our reserve requirements will be in the future. I want to confine myself to the annuity reserve question. There are more general discussions going on, and I believe that there is some unanimity in the insurance and regulatory communities that reserve laws ought to be more flexible, so we can run our business better.

In particular, the strain problems that we were speaking about could get worse, not better. The present 6% basis for annuities automatically expires in 1986, and we could see reserve strains that under current conditions would be double the present levels. Secondly, with the single exception of New York State, the reserve laws in the U.S. do not explicitly provide for deposit administration funds, or funds in general. At least one state - Utah - in the absence of explicit treatment goes back to the 3-1/2% interest rate in the existing law for annuities, which produces tremendous strains. If that sentiment catches on, we could be in even worse trouble, and very soon. However, the environment with the technical NAIC people is good and after a number of meetings, they are very sympathetic to the need for more flexibility. They are definitely concerned with the consumer. They are also concerned about solvency, and that is particularly true in this area of the high interest guarantee market.

Where do we stand at the moment? A comprehensive package was put together jointly by the NAIC and the American Council of Life Insurance through an actuarial subcommittee and reviewed in June. The most important point is that there appears to be agreement that the existing automatic 1986 date should be removed.

Secondly, with respect to the annuity guarantees themselves, there is a recommendation that the 6% be increased to 7-1/2% for new annuities. The regulators suggest that the 7-1/2% basis include a cutback in 1990. We do not favor automatic cutbacks, but at least a rollback would be to a 6% level.

The regulators considered including a specific provision in existing valuation law that commissioners had the right to set standards for deposit funds, which would enable them to promulgate regulations like the New York one discussed earlier.

The council has reservations, because in effect it would give individual commissioners the right to set rates, but that has been dropped out of the present proposal by the NAIC, in favor of developing a model basis developed from the New York approach. New York is reviewing its rules to see whether guarantees open to future money should be differentiated from single sum guarantees.