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LIFE COMPANY FINANCIAL MANAGEMENT UNDER CURRENT ECONOMIC CONDITIONS

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1. The rapid surge in interest rates during the last year and its adverse effect on the cash flow of many life insurance companies

2. The underlying factors which contributed to the current situation in the U.S., Canada, and the United Kingdom

3. Possible steps to ameliorate the situation

MR. ROBERT L. LINDSAY: An article in the July 14, 1980 edition of Fortune magazine entitled "Life Isn't What It Used to Be", discussed some of the problems facing the life insurance industry as the 1980's begin. The author contends that the whole life plan cannot operate efficiently under inflationary conditions. Thus, the industry is subject to runs on cash as interest rates climb well beyond policy loan interest rates. Stability in cash generated by pension operations has been lacking and has accentuated the drop in cash flow from insurance operations of many major companies. The writer predicts significant changes in the insurance business as product innovations are made to respond to the needs of the marketplace.

Our panel will address these and other issues facing the life industry. We actuaries may find ourselves with our backs to the wall in striving to operate our companies on a sound financial basis while remaining competitive. We may develop greater respect for our predecessors who had to cope with a depression, asset losses, horrible experience under disability income riders, and inadequate investment returns during World War II.

MR. PETER F. CHAPMAN: In the United States, the life insurance industry as we know it is being strangulated by inflation. The indicia have been there for the past decade and a half for anyone who cared to look. During the first quarter of 1980, a temporary inversion of long term and short term interest rates merely injected some melodrama into the process without causing any fundamental changes.

Ever since economic behavior has been observed systematically, it has been noted that people tend to save when currency is perceived as stable and to borrow when inflation is anticipated. Why not? And why should life insurance purchases be an exception?

They were not. In 1960, ordinary life insurance premiums were 2.48% of the national aggregate disposable income. By 1972, this percentage had dropped to 2.21%. In 1973, with credit insurance

on loans of ten or fewer years excluded for the first time, the percentage dropped to 2.08%. On the revised basis, there has been a steady, annual reduction to 1.72% for 1979, a sharp increase in the rate of decline.

Inflation affects life insurance purchase habits in two ways. It creates greater paper values of insurable interest by pushing both incomes and assets into higher marginal tax brackets, while it simultaneously diminishes the real, disposable income available for the purchase of the necessary higher amounts of life insurance. Add to these two way pressures, the inflation induced disinclination toward saving, and no great analytic ability is required to predict the trend of premiums per $1,000 on new sales. In 1969, it was $15.49; by 1979, it had dropped below $13, a decline of almost 20%.

These diminishing premiums represent the increasing popularity of term insurance, the substantial reductions in term insurance premiums, and the virtual disappearance from the marketplace of endowment and limited payment life insurance. They do not include the twin phenomena of the late 1970's, the very low participating premiums and the reduced "current" nonparticipating rates, both made possible by higher statutory reserve interest rates. When these developments work their way into the ratios over the next few years, we will become nostalgic for the "good old days" when premiums were almost $13 per $1,000.

The declines in the percentage of disposable income used to buy life insurance, and in the average premium per $1,000 indicate one aspect of inflationary conduct, the disinclination to save. The other side of the coin is the propensity to borrow - the desire to spend someone else's cheapened dollars today in the expectation of repaying the loan with even more cheapened dollars tomorrow. Life insurance policies with loan interest rates unalterably fixed in a bygone era, and without means to require repayment, should have been seen as natural targets. They were. Policy loans went from 14.5% of ordinary life reserves in 1969 to 21.0% ten years later.

Among the other, less documented, trends which occurred to weaken cash flow were worsening persistency, a higher percentage of surrender values taken in cash (including surrenders for maximum indebtedness), fewer dividends left to accumulate or used to buy additional permanent insurance, and increased replacement activity. Much of it was accounted for, or at least rationalized, by the lower current premium rates.

Towards the end of 1979, to resume our dismal history lesson, the Federal Reserve Board, confronted with almost runaway inflation and a declining dollar, elected to shift its priority from securing stable interest rates to restricting the monetary supply. 1980 began with the imposition of significant credit controls on top of an already weakened life insurance industry

cash flow.

Short term interest rates shot up well past long term yields. With little reason to believe that long term rates were about to peak, there was little reason for policyowners, corporate treasurers and individuals alike, to commit new funds to the insurer for long term investment, nor even to allow retention of all previously accumulated assets. They didn't. The watchword became "grab the yields while they are there; we'll take another look at the short term - long term relationship three to six months from now".

Loans and cash surrenders went through the roof. All the elements were there. There was arbitrage:loan proceeds could have been invested for up to six months at two to three times the policy loan interest rate and the same security of principal. There was also the availability of funds at a time when the loan window at the bank, while not exactly shut, was at least a little bit stuck.

Cash flows became negative; assets were sold for less than their book values; commercial paper was issued; lines of credit were negotiated, if not actually used. At the same time, all forward investment commitments were picked up, reducing liquidity still further.

By spring, credit had eased and the demand for policy loans declined, relatively, that is. During the first four months of 1980, for 15 companies reporting such data to the American Council of Life Insurance (ACLI), the net policy loan increase was 141% greater than for the first four months of 1979; in May, June and July the corresponding increase was only 62%. But even though the immediate pressure was off, the lesson was lost on no one.

It now appears to be widely understood at all levels of management that even though short term interest rates have, for whatever period of time, dropped below long term rates, affording the industry some measure of relief, cash flow and cash management will never again be the same. This brings us to the second half of our agenda - what can be done about it?

Without a radical reduction in the rate of inflation or, more important, popular perception of the rate of inflation, not a damn thing. Let me go further. Given the most probable outlook for the next five years, an annual inflation rate between 8% and 12%, the life insurance business, as most of us in this room know it, will be transformed beyond recognition.

Let's start with what I will call the investment/product design cycle. The universally familiar steps in this cycle are:

1. An estimate of cash flow is made, most frequently by a joint

effort of the actuaries and the investment managers.

2. On the basis of this estimate, the investment department develops its objectives, specifically the types of assets to be acquired, the timing of such acquisitions, and the relative importance to be given to yield and liquidity.

3. Evaluating the outlook for this investment strategy, the actuary is now in position to choose the interest assumptions to be used in product pricing.

Note that the cycle must necessarily begin with the cash flow projection. During the first months of this year, pension fund disintermediation and policy loan demand totally kicked the hell out of the most carefully crafted cash flow projections. Can Humpty Dumpty be put back together again? Let us consider the available alternatives, policy loans, product design, and investment strategy before we conclude, with the prophet Jeremiah, that there is no balm in Gilead, or in New York, or Hartford, or Boston, or Newark, or Milwaukee, or Los Angeles.

Policy loans. What can we do? We can increase the loan interest rate, again; we can push for truly variable, or indexed rates, we can institute programs aimed at encouraging loan repayment, or we can press for changes in the taxability of policy loan interest. Let us look at these one by one.

During the difficult days in February and March of this year, I received a plaintive request from my top management. "For God's sake", they asked, "how much loan value is there that hasn't been borrowed"? We made an interesting, and, I gather, fairly typical discovery.

Roughly two-thirds of the remaining, available, unloaned values carried a 5% interest rate. An additional 25% could be borrowed at 6%. The 8% loans, introduced in 1977, after three years, were less than 7% of the available funds. The 6% rates had been introduced eleven years earlier, in 1969. Admittedly, about 15% of my company's (Mutual Benefit's) volume is written in New York which mandated 5% rates through the end of 1978, and a Pennsylvania agency is one of our strongest. The bottom line, however, is that any change in the contractual loan provision will take decades to have an impact on either the aggregate loan utilization rate or the net yield on the policy loan asset. Our problem is the next five years.

If we want immediate action, however, there are several possibilities, none of them very attractive when the full potential implications are considered. We could ask the Internal Revenue Service to change the Revenue Code to make it impossible, or at least more difficult, to deduct policy loan interest on individual and corporate income tax returns. What an immediate impact this would have!

Unfortunately, the impact would not be limited to policy loan utilization. It would extend to new sales and it would affect the balance between term and permanent. I have no data on the percentage of permanent sales that are materially influenced by the representation that values can be borrowed at fixed, guaranteed rates. But I don't want to find out. While current prospects may change or postpone their purchases, the owners of outstanding policies may make their views known silently, by surrendering for cash as a less onerous way of getting the money, vocally by raising a consumerist issue the like of which we haven't seen to date, or silently and vocally by doing both.

But can't we urge people to repay their loans? We can, but will they obey our urging? The industry would be bucking deeply ingrained economic behavior in exhorting individuals to reduce indebtedness in a time of declining monetary values. What argument, for example, could rebut the statement that the borrowed money is being put into a flexible premium or single premium annuity issued by a reputable carrier (maybe even the same carrier) and crediting interest at twice the policy loan interest rate? Can we honestly suggest that the policyowner is stealing from his or her beneficiaries?

How about paying the agent a commission on repaid principal? I've heard of companies that have done this. I've never heard of any who have done it successfully. The only winners in that game are the agent and the bank that makes the short term bridge loan until the funds are reborrowed after the commission has been paid.

Some modest success in stimulating cash flow has been achieved by envelope stuffers sent out with January, February, March and early April billing notices that say "did you know that policy loan interest is not tax deductible unless it is paid in cash?" or "a friendly reminder-interest cannot be deducted unless at least four of the first seven annual premiums are paid in cash". Such a program diminishes with repetition and, at best, reaches only a fraction of actual and potential borrowers.

But if we can't diminish loan utilization, what about creative product design? Adjustable life? Total life? Combinations of term and flexible premium annuity? And other innovations yet to be created? The considerable merits of such contracts aside, the plain fact is that, rather than helping the situation, they exacerbate it.

By allowing flexibility in the payment of premiums, such policies eliminate one cause of borrowing at the expense of impairing the ability to forecast premium income. While lapse rates of traditional products are the least predictable elements in traditional cash flow analysis, the margin of error in such estimate is far lower than that in trying to estimate the premium income within the wide range of potential fluctuation permitted

by most flexible premium plans.

If cash flow cannot be predicted with confidence, forward commitments will eventually atrophy. This will impair the ability to invest in projects with long lead times, such as apartment and office complexes, shopping centers, etc. To a lesser extent funds will be directed from direct placement bonds, which require some advance commitment, to publicly traded issues. The ability to time asset acquisitions to catch anticipated peaks and troughs in interest rates will be weakened, perhaps fatally.

Greater liquidity will be required, both because of greater cash flow volatility and because of a shorter distribution of liabilities. Whether you apply the theory of immunization or recognize what every banker knows about the dangers of borrowing short term and lending long term, you come to the inescapable conclusion that life insurance investment results will be tied more closely than ever before to fluctuations in short and intermediate term interest rates.

These, of course, have been theoretical discussions based on the logic of the present situation. I hesitate to label them forecasts because events have a habit of defying logic. For example, the length of debt instruments offered by borrowers will have to respond to conditions prevalent among their principal purchasers, the life insurance industry. With the industry investing shorter and aiming for more liquidity, the issue could become academic when long term bonds and mortgages are no longer available. Similarly, the difficulties of making long range forward commitments may ultimately force a sounder investment strategy. A forward commitment places the lender in the long position on the market price of a bond or mortgage. Considering the outlook for inflation over the next half decade, it may turn out to be sound strategy to avoid forward commitments unless there is a reasonable likelihood that yields will not be materially higher when the funds are transferred.

And, finally, let us return to the three phase investment/pricing cycle with which we began. We ended the cycle, you will recall, in its third phase with the actuary choosing an interest rate to use in product pricing. With a portfolio of shorter term assets, a higher percentage of which are rolled over each year, interest rates become less predictable. And so the uncertainty, having come full cycle, spreads over into product pricing.

I have appeared to indict inflation as the only cause of the ills of the industry. There are other problems. Management obviously is affected by consumerism, by the Federal Trade Commission, by the regulators, by the courts, by the moves to repeal or modify McCarran-Ferguson, by restrictions on the right to underwrite. I submit, however, that as an agent of radical change, inflation is in a class by itself.

MR. LINDSAY: Peter has recounted some of the recent difficulties experienced by the individual life lines of business. The group annuity lines of many of the major pension writers have also had some cash flow problems this year. My company's (MONY's) pension line experienced a net cash outflow from the general account in two months of the first nine months this year. The reduced cash flow is attributable to reduced income and increased cash disbursements.

As an industry we make advance commitments for most of our investments at interest rates prevailing on the commitment date rather than the acquisition date. There can be a lag between the two of anywhere from roughly three months to two years. When interest rates are rising, our investment returns lag behind those available in public markets. This impairs our ability to attract new dollars and to hold on to current contractholders. This phenomenon gave banks, investment firms, and in-house bond funds a competitive advantage over our General Account in the first half of 1980; and rates have still not returned to a level that makes our old commitments look attractive.

Also, New York has reserve requirements for Guaranteed Investment Contract business which are very limiting in a time of sharply rising interest rates. This means that, even when client funds and investment opportunities are available, we can't offset cash outflow with new business to the extent we might want to.

Income has been lower than normal because pension clients are not as willing to commit funds to the general account. Many fear being trapped by making long-term investments at fixed rates which may prove to be low relative to other investments and the rate of inflation.

With short-term rates at record levels, many pension dollars were added to short-term separate accounts or were used to purchase money-market instruments. This gives them maximum flexibility when the investment outlook becomes clearer. For a period of time the return on short-term investments exceeded that offered by insurance companies on a long-term basis. One cannot fault pension fund trustees for investing funds short-term under these circumstances.

The proliferation of separate accounts for qualified pension plans has, to some extent, taken away the attractiveness of general account products. Pension clients can purchase direct placements, public bonds, real estate, etc. through separate accounts and can select the asset mix which is appropriate for them. Also through separate accounts they can obtain a somewhat better yield than through the general account. Of course the guarantees are much less than for general account products, but this may not be important for a fund which has a positive cash flow and can afford to ride out ups and downs in the value of its account. This shift to separate accounts reduces cash available

for investment within the general account. Also, some of the $120 billion of pension fund assets which was with insurance companies at the end of 1979 can be moved between accounts which certainly complicates the investment manager's job.

Some plans which have been with an insurance carrier for several years are currently earning a relatively low rate of return on their funds. This is the case because the investments underlying these pension funds were made when interest rates were lower. Many found that it would be advantageous to cash out their existing contract and purchase a new contract at current rates. Market value adjustments on cash out were inadequate to offset the actual loss. Thus the policyholder could recover any loss over a relatively short period of time.

Due to cash flow considerations, some companies concluded that it would be more advantageous to offer an extremely attractive short-term lead rate to prospective pension clients even if this resulted in crediting an interest rate in excess of that actually earned. This was satisfactory because the cost of borrowing from the banks exceeded the rate guaranteed to pension clients. Other companies decided to sell commercial paper which resulted in a lower cost of borrowing than through the banks.

The recession may also reduce funds flowing into pension and profit sharing plans. Layoffs, closing of plants and delays in hiring affect all fringe benefits, including pensions.

Long term, the pension business looks good. It has excellent growth potential, especially in an inflationary period. Separate accounts should continue to grow in both number and size. Growth of general account pension assets may be at a faster rate than the life line but at a lesser rate than separate accounts. Investment planning will be extremely difficult.

MR. CHRISTOPHER D. CHAPMAN: The dramatic rise and the new highs in interest rates experienced toward the end of 1979 and in the early months of 1980 in both The United States and Canada acted as a catalyst to bring together several elements of the life insurance business which have become increasingly unstable during the last decade. The result was a significant increase in policy loans and cash surrenders, which may be only a prologue of what is yet to come.

I will attempt to describe what has been happening in Canada, try to identify the underlying causes, and finally, look at the steps being taken, hopefully to stabilize our cash flow situation.

What do we see happening? Since it is very difficult to obtain industry data for such a recent time period, I will generalize from what I know in my own company (Great-West Life Assurance) and from conversations I have had with people in other Canadian companies.

All companies have had increases in outstanding policy loans at rates which represent some multiple of those in recent years. There is a wide variation in experience. In my company, the monthly rate of increase in policy loans peaked in November 1979 at seven times the average monthly rate of increase for the year 1978. There has been a very steady improvement in that situation since then to the point where, for the last three months, we have had no net increase in policy loans at all. This, however, is not just the result of lower short-term interest rates but is significantly affected by a change, effective July 1 in our loan policy.

I will explain this change in policy later; for the moment, I expect this experience is rather typical of what has happened to the policy loans of most Canadian insurance companies. By way of comparison with the United States, Canada did not experience credit controls in the early months of 1980 nor did we find the banks reluctant lenders. As a result, there were not the same demands put on the Canadian insurance companies as a last resort source of funds as I suspect occurred in the U.S. Our own company's experience bears this out as our ratio of loans to loanable funds increased by four percentage points in our U.S. portfolio and only 3% in Canada for the twelve months ending August 1980.

Short term interest rates peaked at the height of the Registered Retirement Savings Plan season when most Canadian taxpayers were actively reviewing the investment of their tax sheltered funds. The simultaneous convergence of these two factors resulted in cash surrenders of individual products in the early months of 1980 running at double or more those for the same period of 1979. Our company did an extensive analysis of individual surrenders which occurred during this period. Some of the results, while not surprising, may be of interest to you. Our analysis indicated that surrendering policies were dominated by those with very high investment components, such as retirement income insurance, and they tended to be at older ages and later durations where the amounts at risk were either small relative to the total amount or small absolutely. For example, we had a large number of policies of the $2,000 to $5,000 variety where the amount at risk would be less than 20% of the face amount. Our Customer Interview Department conducted a telephone questionnaire on a small sample of terminating policyholders and found that more than 80% had terminated either because they felt their insurance coverage was no longer significant or necessary or because, in their words: "We can obtain a better investment return elsewhere". We asked our sample of terminating policyholders directly whether their decision to surrender had been influenced either by an agent of our own or another insurance company. In surprisingly few cases did the policyholder admit to having been influenced by any agent. This was surprising because we were aware of considerable raiding of cash values going on in certain of our branch offices. These branches

coincidentally, had termination rates on permanent business du9ing this period approximately three times the average of all branches. Nevertheless, we did conclude from this experience that the media influence on our policyholders' decisions to either take policy loans or surrender their cash value life insurance policies had been very persuasive.

For group pensions, high short term rates did not occasion a rash of cash withdrawals. Most plan sponsors who were at all concerned about investment returns had their funds invested in new money products, segregated pooled or separate non-pooled funds, all of which make capital value adjustments for changing interest rates. The most notable phenomenon in the pension business around last year end was a temporary pause in normal cash inflows to those companies which did not have competitive short term vehicles as employers delayed committing funds to longer term investments and took advantage of high commercial paper or bank term deposit rates.

Obviously, this drying up of expected cash flows for various reasons had a significant impact on life company investment operations. Companies with large forward commitments were dealt a double blow. First, cash inflows were inadequate to meet commitments. Second, the quick rise in interest rates meant the longer term commitments were paid out at most uncompetitive rates.

The impact on the investment operations of the industry as a whole was not as bad as it might have been for two reasons. First, there was a lot of disintermediation within the industry itself with funds being surrendered from insurance policies and applied as single premium to life insurance or deferred annuities with other companies. This used to be called twisting. The second reason that the impact on our investment cperations was somewhat assuaged is that the insurance cash flows disappeared at about the same time that investment opportunities dried up due to a combination of the economic slowdown and the depressing effect that high interest rates had on long-term corporate borrowing.

High levels of cash surrenders mean deteriorating persistency and, in the context of financial management, we should not overlook the impact this will have on the ability to realize our premium assumptions. I am particularly concerned about the credibility of deferred acquisition expenses now reflected in our balance sheets if we experience a prolonged serious deterioration in persistency. Not surprisingly, my company has found that, even in these troubled times, our persistency experience is at least as good as our premium assumptions during the first two contract years which count towards our agents' conservation bonus. A fairly dramatic deterioration takes place after the second year.

Today's program outline suggests that the rapid increase in

interest rates was the primary cause of our recent cash flow problems. The rise in interest rates no doubt triggered the situation, but it is just a symptom of changing times and the true underlying causes are in fact many and varied and have, for the most part, not been dealt with effectively by the industry. Time does not permit identification, let alone discussion, of all of the underlying causes, but let me touch briefly on a few of the more important ones by way of example.

First of all, on the product side. While we have seen the emergence of many new and more contemporary deferred annuity and permanent insurance products in the last few years, the industry as a whole is characterized by products which have lifetime guarantees and relatively heavy loads at a time when, largely due to inflation, time horizons have become considerably shorter and much greater emphasis is put on achievement of good investment returns on all forms of personal saving. Aside from new money annuities, the effective return on most traditional products with high savings components has not been good, especially when compared with recently available alternatives. Insurance companies have been generally slow in reflecting current higher portfolio returns, including capital gains, in dividend scales. The prepackaged nature of our permanent life insurance product does not allow the flexibility needed to respond to frequent change. I would characterize most of the permanent in force business in the industry today as obsolete, either in terms of serving the policyholder's needs or, in comparison with more contemporary forms of products. Combine all of this with guaranteed cash surrender values and I wonder how we can expect this business to stay on the books.

Our distribution system is another major contributing cause to today's problems. Our hi-low commission system, with the heaping of bonuses and expense allowances in the first policy year, has far overemphasized the value of new business relative to the maintenance of business in force. We have established a circumstance where the interests of the agent are, for the most part, in conflict with those of the company. Compounding this situation is the fact that agent earnings are under pressure due to increasing public disenchantment with the traditional permanent life insurance contract and the increasing competition within the industry which has consistently driven down the price of term insurance. In Canada, the move to brokerage licensing is almost complete, thereby facilitating the movement of in force business between companies.

The rise of consumerism and the media and regulatory response have done much to increase demands for better value and have greatly enhanced the consumer awareness of the relatively poor value represented by many in force policies, especially old non-par permanent insurance. The current emphasis seems to be on price as opposed to service, and in this environment, many of our traditional products do not stand the test and are being

surrendered.

In addition to the above, for the most part, life-company financial management has been very slow to respond to changing conditions. In Canada, in spite of the fact that a great degree of flexibility has always existed in both the design and the administration of the policy loan provision of individual contracts, hindsight shows that policy loans have been managed both inconsistently and ineffectively.

In spite of the development of more interest sensitive and shorter time horizon products, there has been a general failure within the industry to come to grips with the subject of asset and liability matching. The industry could be characterized as suffering from poor communication and coordination between those responsible for product design and pricing and those responsible for investment of funds.

I would summarize the underlying cause of our recent cash flow problems as a reluctance on the part of the traditional insurance companies to make the structural changes necessary to respond to changing economic conditions and increased consumer awareness. There are obvious signs of this situation changing - but slowly.

What then is being done to ameliorate the situation? In the area of policy loans, the Canadian Life Insurance industry, working through the Canadian Life Insurance Association, agreed with the Federal Superintendent of Insurance to a new set of guidelines with respect to policy loans effective April 30, 1980. Generally speaking, most Canadian permanent life contracts issued since September 1, 1968, do not specify a maximum rate of interest to be charged on policy loans. The guidelines adopted this year were in response to a need for assurance on the part of the Dept. of Insurance that a reasonable policy would be followed by the life companies and, on the part of the life companies, that they would have enough flexibility to cope with changing interest rates and investment conditions. In essence, the new guidelines permit companies to charge current rates on new policy loans and to make changes at regular intervals to update rates on in force loans. Companies are required to specify the maximum rate which will be charged on the policy loan at the time it is taken out. There are four alternative methods of specifying the maximum rate, two which result in fixed maxima and two of which are variables; one a function of commercial bank prime lending rate and the other a function of Bank of Canada bond yields.

It is expected that the adoption and implementation of these guidelines will result in both a much more manageable situation with respect to policy loans and one which is more rational and comparable to other personal borrowing alternatives available in the marketplace. I mentioned before that our company's increase in policy loans which had been running at seven times its normal rate toward the end of 1979 dropped to zero increase for the

months of July through September 1980. I am not sure whether this was due to lower bank prime rates or to the fact that, effective July 1, 1980, we increased the rate on in force policy loans to 12% after having resolved which of the new Dept. of Insurance Guidelines we would follow.

The other kind of response we are seeing to the policy loan issue is to try to avoid it altogether. At least one company has recently introduced a level premium term to 100 product with no cash values and hence no loan provision. Cash and loan values may become much less significant as we see the introduction of more low premium adjustable or guaranteed renewable permanent insurance products. Furthermore, most Canadian companies now have five to ten year renewable deferred annuity contracts which do not permit cash or loan values prior to renewal.

Action being taken with respect to cash surrenders is generally twofold. The first is to provide enhancements to in force business to improve both its investment and insurance value so it is more likely to remain in force. Investment values have been increased by significant increases in dividend scales and we have seen several examples of these from Canadian companies including some special one-time dividends. Initiatives to improve insurance values of in force business have been less conspicuous in Canada than they have been in the U.S. For example, Project Update undertaken by Northwestern Mutual and the single premium policy option offered by National Life of Vermont. Most of the activity in Canada has been restricted to offers to increase the amount of in force insurance on current policies for additional premiums, sometimes without evidence of insurability but with time and amount limits. I expect we will find that companies will begin to promote the use of dividends to purchase additional insurance either on a paid-up basis or on a Yearly Renewable Term basis on in force policies to increase their insurance value.

The second approach being taken is to substantially or completely remove commission restrictions on rewritten business. This may be said to promote rather than reduce the level of cash surrenders but it does tend to ensure that the funds remain with the original company instead of going elsewhere.

Although most Group Pension fixed investment contracts have market value adjustment clauses in them, in many cases, these were not adequate to protect against the capital losses suffered with the dramatic rise in interest rates experienced at the beginning of this year. Furthermore, many companies did not have investment vehicles incorporating short-term features which could take advantage of the inverted yield curve. This has hastened moves to introduce money market funds or other innovative investment vehicles in order to retain the administration of funds.

On the investment side, I sense that significant changes have

been taking place in recent years to make the investment operation more responsive to both changing investment conditions and a more interest sensitive product. The peak in interest rates we just experienced only helped to hasten these moves which have included shortening the term of assets, the introduction of immunization or asset liability matching procedures, a significant improvement in the processes of cash flow forecasting and monitoring, a reduction in the exposure to forward commitments, pressure for flexible rather than fixed commitment rates and, in general, a keener awareness of the need for new and flexible investment vehicles. The investment market is now receptive to not only shorter absolute terms but, where that feature is not attainable, frequent rate reviews or income participation features.

To conclude, I shall return to the subject of improved persistency since initiatives to this end are not only current but they hold the key to our ability to succeed in the 80's. Here we see companies taking action to extend the period for which agent conservation bonuses are paid from the current one or two years out to five years or more. There has been some action, but mostly talk, toward establishment of level rather than hi-low commission scales. Most significantly, there are an increasing number of initiatives to redesign our long-term contracts to forms which can adapt to changing conditions and will therefore serve customer needs over much longer periods of time. These include the flexible, adjustable and guaranteed renewable variations on the theme of traditional packaged products as well as unbundled universal life-type products. The end result will be products which can adapt to consumer needs and will therefore persist. However, the introduction of these new products may have an even more severe and disruptive impact on the industry than did the high interest rates.

MR. JOHN J. PALMER: My task today is to provide a brief survey of life insurance practices and results in the United Kingdom (U.K.) in the past 10 years or so in the hope that some lessons may be drawn from their successes and failures in coping with an inflationary environment. U.K. companies have had to deal with economic pressures beyond their control which have been at least as severe as those now facing us in North America. I do not intend to provide a comprehensive survey of U.K. life company operations in their entirety; rather I will concentrate on those particular aspects which may have some parallel with or possible transferability to U.S. and/or Canadian Operations.

This particular motive was in fact the reason why I and a colleague from our investment operations visited the U.K. earlier this year. My comments are based largely on the results of that visit and on collateral readings. Let me state briefly the conclusions I came to as a result of our investigations:

1. U.K. companies have been, and will continue to be, able to

weather the storms of inflation with a remarkable degree of success.

2. The main factor which permits this seems to be a regulatory structure which is highly flexible and even enlightened by U.S. standards.

3. Product design is the major mechanism which U.K. companies were and are able to use (because of the liberal regulatory environment) to deal with changing conditions.

Having stated my thesis, let me describe some of the specifics which support it. First, however, a note on terminology: U.K. insurance jargon differs significantly from that in the U.S., as anyone who has done any reading in the Journal of the Institute of Actuaries (the English Counterpart of the Society) will already know. As the Welsh poet, Dylan Thomas, once commented during a lecture tour of America, we are up against the barrier of a common language. Wherever possible, I will use U.S. terminology for essentially similar concepts, rather than start with a U.S. - U.K. glossary; however, I will use U.K. terminology for items unique to their system.

Product design is the most significant factor which bears on a company's ability to ride the crests and troughs of inflationary waves. The structure of liabilities which a company must manage itself to discharge are of course a result of the product design features it has sold in the past. The design of products it sells today not only determines the structure future management will inherit, it also determines whether the company is growing or shrinking, living or dying. To the extent that a company designs its products in such a way that the promises it makes cannot be fulfilled, it is serving neither its own nor its policyholder's interest.

Standard U.K. life insurance products of 15 years ago or more resemble in many respects orthodox U.S. products of the same period, and there, as here, they continue to command a large share of the market. There are significant differences in mix of business, however:

- Industrial insurance still accounts for a significant portion of premium volume.

- Endowment policies are much more significant.

- Much less term insurance is sold in the U.K.

There are a number of reasons for these differences which may be instructive:

- Life insurance policies are viewed in the U.K. primarily as savings vehicles; this attitude is greatly encouraged by the

tax structure, which gives a tax credit of 17% of premium on so-called "qualified" plans. This tax credit is even deducted by the insurer from gross premiums, so that the policyholder pays only net premiums. The limits on what constitutes "qualified" plans are relatively generous; one significant requirement is that the plan must run for 10 or more years.

- Term rates are quite low by U.S. and even European standards; consequently there is no incentive for a company or its sales force to push term; profits and commissions are relatively low.

- The mix between whole life and endowments is affected by a 1976 change in the way brokers are compensated. Prior to the change, commissions on whole life and endowments were 2% of face amount; subsequently they were changed to 2½% of premiums times years of premium payment (up to 60%). This had the effect of greatly increasing the incentive to sell endowments, and particularly to sell participating policies; in the U.K. the differential between par and non-par premiums is much more pronounced than in the U.S. This commission change was caused partly by inflationary pressures; inflation forced premiums lower and lower on new policies, encouraging a high level of replacement activity because of a marked increase in commission as a percentage of premium. The method by which this change was accomplished is particularly noteworthy. Essentially, commission rates are set by the Life Offices Association (LOA), an industry association akin to the ACLI. This mechanism allows changes of this sort to be done extremely efficiently (from the companies' perspective).

More important perhaps are two other differences:

- There are no minimum mandated non-forfeiture values, either in the form of cash or otherwise. Cash values may be and are paid out, on surrender, but the method of determination of an appropriate value is essentially left to the discretion of the company's actuary. At point of sale, cash values may be illustrated in a similar fashion to dividends.

- Policy loan rates are similarly flexible; the company may charge rates it deems appropriate.

These factors would of course do wonders at giving the companies an edge on inflation - but what of the policyholder? The major inflation -responsive activity in the area of mainstream products has been variation in the level and structure of dividends on participating policies. Special, mortuary, and terminal dividends were introduced which provided some additional inflation protection to policyholders and, perhaps more importantly from the companies' point of view, allowed for more attractive maturity value illustrations in the face of competitive pressures

arising within the industry from some non-orthodox products which I will mention shortly.

At this point some comment on investment policies of U.K. companies may be in order to explain how these bonuses could be declared more or less at will. U.K. companies are not subject to restrictions on investments that resemble U.S. restrictions. Overall U.K. companies invest in the following approximate proportions in various investment vehicles.

Common Stocks	30%
British Government Bonds	24%
Real Estate	22%
Mortgages	9%
Other Governmental Bonds	3%
Other	12%

Appreciation existing in common stock and real estate holdings permitted a certain level of supplemental dividends to be declared, although subsequent events, namely the decline in stocks through early 1975, brought about a more cautious attitude.

The most significant marketing response to inflationary pressures, however was the development of so-called linked (or unit-linked) plans of insurance. These can most readily be thought of as a sort of variable life insurance policy, with the link being made to a separate investment fund (called a unit trust) of some sort held either by the insurance company or by an external entity. These are sold primarily as tax-advantaged savings vehicles, although they must provide some level of insurance to qualify for tax relief. Although simple conceptually, there are numerous complications relating to the load structure and surrender charges. Most noteworthy is the investment flexibility available; current products offer the ability to choose among several funds, typically equities, property, fixed interest, guaranteed deposit, and managed funds. The policyholder generally has the option of mixing and switching funds within certain limits. These products achieved a high level of acceptance in a fairly short period of time; in fact the major marketing push came from newer companies specializing in unit-linked products - only gradually did the traditional companies respond competitively with similar products.

This product represented a dramatic and major shift in the liability structure undertaken by the insurers; all or most of the investment risk has been shifted to the insured. Currently efforts are being made to determine the manner in which maturity guarantees, generally in the form of a guaranteed return of premiums at the end of a stated term, can reasonably be supported.

Some more recent variations on this theme involve the shifting of still more risk to the policyholder. First maintenance expenses may be variable, subject to stated limits, allowing the insurer protection against the effects of inflation on the costs of administering the in force business. Second, products which allow the company to shift some mortality risk to the insured are now coming along. The essential mechanism which permits this is the deduction of mortality costs that are variable (within limits) from the linked fund. The net result is thus similar to the Universal Life type of products recently introduced in the U.S., albeit with much more investment flexibility than is currently available here.

The introduction and subsequent evolution of linked products was accomplished with what would seem to us to be extraordinary speed. Because there did not exist bureaucratic hurdles comparable to the state and provincial insurance authorities, not to mention the Securities and Exchange Commission, the product details evolved to the condition just described by a process of trial and error. Contrast this with the course of variable life insurance development in the U.S.

I would also like to mention another relatively recent U.K. product that has considerable interest to North American actuaries, not so much for the features of the product itself as for the reactions of British actuaries to it. The policy is called a flexible endowment assurance and can be considered to have been developed in response to inflationary pressures in the U.K. It is basically a participating endowment policy, generally with maturity at 65, although shorter terms are offered. The novel feature is that cash values are guaranteed continuously beginning with the tenth policy year. Another interesting feature is that the basic policy is often split into a number of smaller policies, denominated in monthly premium units as small as 1 Pound; the object of this is to facilitate partial cashouts by the policyholder - the U.K. tax environment makes partial surrenders out of a single policy unattractive.

There is an interesting paper on the "financing" of this policy, which deals with evaluating the cost of guaranteeing the cash values, developing an appropriate dividend structure, and devising an investment strategy to "match" this policy. It is in the Journal of the Institute of Actuaries, Vol. 106, p. 149 (1979). I refer you particularly to the discussions, which are at least as interesting as the paper itself. Most discussants suggest approaching the policy with considerable caution; only companies with substantial volumes of mature participating business already on the books should offer such policies, and then only in limited amounts; there should be a different (lower) dividend scale, with as much shifting toward terminal dividends as possible; there was much discussion but no clearly satisfactory suggestion as to how one could invest to match such policies. Some discussants even questioned the need for and the

wisdom in issuing such a policy at all.

No discussion of U.K. life insurance company practice would be complete without some reference to immunization. In this context, immunization essentially means creating asset and liability structures in such a fashion that the relation between them remains unaffected by changes in prevailing interest rates. The mathematical tools which, under certain conditions, allow this to be accomplished were first developed by British actuaries, although with typical American zeal we have probably overtaken them by this time. U.K. companies do not now, nor did they ever, practice immunization on a widespread basis as a mechanistic approach toward investment strategy. I point to immunization more as symptomatic of a much closer awareness in the U.K. of the necessary interrelationship between assets and liabilities. Not for nothing are a large fraction of investment officers in the U.K. members of the Institute of Actuaries - whether this is cause or effect, I'm not sure. In fact, during our visit to England the investment man who accompanied me began to despair of finding an investment person who was _not_ an actuary. It seems to me that U.S. companies have much to learn in this area, and I am greatly encouraged by the current surge of interest in immunization, as evidenced by the Society's excellent recent seminars.

In the U.K. valuation matters and solvency are left much more to the judgment of the actuary, with full disclosure required. Among the matters which must be disclosed is some commentary on the degree of matching (in the immunization sense) which exists between assets and liabilities. I am aware of one more or less pure application of immunization in the U.K. which involves the investment backing for a pension accumulation product guaranteeing a simple rate of interest related to current yields on long-term government bonds. A hypothetical asset portfolio is maintained which matches the liabilities exactly, while actual investment practice deviates somewhat from this ideal, mainly to take advantage of certain anomalies in the tax structure. The primary condition which permits this system to work is the existence of a well-organized and coherent range of investments, namely the U.K. government bond market, which offers terms ranging from 5 to 45 years.

What conclusions can be drawn from this survey of U.K. practices? Aside from a certain amount of envy of the U.K. actuary's freedom (and duty) to act responsibly within wide limits, we see that there are actions which life insurance companies can take in a volatile economic environment, not only to defend themselves and their policyholders against inflation, but even to turn it to their advantage. There is, of course a limit to what even unlimited flexibility can do; there is really nothing that can be done to protect a savings-oriented business in an economic climate where savings _per se_ is not a rational course of action. But (I hope) we are still some distance from that point.