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NONPROPORTIONAL REINSURANCE AND THE INDEX CLAUSE

RONALD FERGUSON

DISCUSSION BY JOSEPH W. LEVIN

Mr. Ferguson has presented to the Society a paper which has universal appeal to the membership of the Society as well as those in the industry not necessarily technically involved. This paper has an exceptional blend of academic, technical and practical substance.

In his diagnosis and prognosis, Mr. Ferguson presents the problem of inflation from the standpoint of economic theory and from its manifestation in everyday life.

Mr. Ferguson is further to be commended for putting his finger on the more critical points of dealing with inflation. For example, he refers to the "double-barreled inflation effect—the ordinary economic inflation discussed . . . and what might be called social inflation." It is exactly this social inflation which raises doubts in my mind as to the total effectiveness of the index clause to which Mr. Ferguson addresses his paper. One of the biggest challenges facing reinsurers as well as their clients is the precise measurement of the dominant force in society—inflation. Various indices have been in existence for several years, but unfortunately these are subject to the aberrations of statistical methods as well as, I feel, political manipulation.

Mr. Ferguson, in his paper, refers to a study made by Mr. L. H. Roberts entitled "The Impact of Inflation in Reinsurance Costs". The table extracted from Mr. Roberts' study shows that the effect of inflation on layers in excess of given retentions is considerably higher than the overall inflation. For the values shown in this paper, the effect on excess losses is from 2 1/2 times overall inflation at the $10,000 retention level, to over 3 1/2 times at the

$50,000 retention. Extrapolating beyond this, the power becomes more significant. Keeping in mind this tremendous leverage, let us consider the example shown in Table III of Mr. Ferguson's paper. In this table he shows a hypothetical population of 22 losses at various amounts at a 1974 cost level. He then adjusts these to subsequent settlement values into the future, assuming a 10% inflation rate. On the basis of a fixed retention of $50,000, he demonstrates that the indicated reinsurance rate would increase by 15% and 19% respectively, for the two successive years after 1974. This is predicated on an assumed increase in subject premium of 10% a year. He then goes on to demonstrate later in the paper the effect of changing retentions at the same rate of 10% a year. He shows that the relationship of the excess losses above the changing retention to the subject premium remains a constant percentage.

To satisfy my curiosity, I developed a similar table with the assumption that the selected index rises at the given 10% per year, but actual losses increase at the rate of 20% a year, or two times the total rate of inflation. This is not out of line with the leverage mentioned above. The results of this calculation and excerpts from Table III of the paper are summarized below.

Number of Losses	1974 Initial Gross Losses	1974 Accidents Settled at 1978 Value	
		10% Annual Inflation	20% Annual Inflation
10	$ 30,000	$ 43,923	$ 62,208
5	40,000	58,564	82,944
3	50,000	73,205	103,680
2	60,000	87,846	124,416
1	80,000	117,128	165,888
1	100,000	146,410	207,360
Losses in Excess of $73,205*		146,410	469,380

* $50,000 x $1.10^4 = \$73,205$

What is seen from this exercise is that doubling the rate of inflation on the excess layer of coverage has the effect of more than tripling the costs when the index is tied to the *overall* inflation rate. This is only in the first exposure year!

The rest of the paper deals with some of the mechanics and operations of the index clause, discussion of variations, and in the appendix he shows development of the rate discount for the implementation of such a clause.

Special comment was also directed to the impact of loss reserves. It is essential at this point, to underline his concern over the ramifications on the reserving practices of both ceding and assuming carriers. Since loss reserving is involved with establishing estimates of amounts needed in future transactions, a certain amount of anticipation of future inflation is essential at this point. As has been demonstrated in the past several years, nobody has been able to precisely accomplish that objective. I feel, without firm conviction, that indexing may have a disturbing influence on the loss reserving exercise since underlying history is no longer representative of the present and future. However, is this really different than the shifts in underlying data that we now presently encounter?

Reference was made in the paper to the utilization in other countries of the stabilization clause or index clause as it is called more commonly in the United States. Although there appears to be evidence of success, there still appears reluctance for universal acceptance. It has been observed that the index clause has not become a "standard" clause in most international reinsurance contracts. One of the biggest problems as mentioned in Mr. Ferguson's paper is the problem of multiple claimants or multiple payments over a long period of time. For example, if a claim is paid over several years, the payments must be divided by the indices applicable at the time of payment. The proportion of these adjusted payments in excess of the original retention is applied to the actual total claim payment to determine the amount for which the reinsurer is liable. This problem is made more complex in annuity payments over a long period of time. The European countries have experienced inflation of a more severe degree from a cost standpoint, and are now currently encountering the social inflation or "super-imposed inflation" especially in more current times. We are all concerned with the trend of courts to award substantial damages for other than economic costs. The ballooning of jury awards and settlements well in excess of economic costs have prompted many to take a hard look at the present tort system. I believe this has great impact on excess reinsurance, since one can mentally allocate most of the economic losses to the retention, and proportionately more of the general damages or non-economic losses to the excess portion. This area is highly volatile and is not presently capable of accurate indexation.

Since the underlying theory of index clauses is fairly simple, that is the equitable distribution of the impact of inflation on both the cedent and the assuming reinsurer, I wonder why this concept has not achieved greater acceptance in the United States' market. Perhaps the answer is the natural resistance to changing methods or perhaps the answer lies in the problem it-

self. What I mean by this is that the uncertainty of inflation may be, in itself, a retardent.

Although ultimately losses are recognized in the rating procedure, there are no other known methods widely employed that achieve the objective of the index clause. One alternative that may have already been tried is to offer a combination of an index clause and a retrospective rating device. As was previously demonstrated, if the rate of inflation affecting the excess losses is more severe than that overall, even the index clause will not achieve the equitable distribution of the impact of inflation. Retrospective rating will help return to the reinsurer some of the additional losses experienced as a result of the leveraged inflation.

Mr. Ferguson has provided the Society a vehicle to further examine this issue and has challenged us all to find a better way to deal with the problem of sharing the impact of inflation in non-proportional reinsurance contracts.