GENERAL INSURANCE INVESTMENT PRINCIPLES

1. Introduction

1.1 A small working party was asked to produce a paper on this topic for the GIRO Seminar in September 1984. Members of the working party were:

A.K. Thomson
P. Hodkinson

1.2 In section 2, we list what we perceived as being four basic investment principles. In the following sections, we discuss why they are important, how they may be achieved and problems that may be encountered.

1.3 The balance sheet of a typical established general insurance company which writes a balanced portfolio of all classes of business with written premiums of 100 might look like:

<table>
<thead>
<tr>
<th>Investments (including cash deposits)</th>
<th>115</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outstanding Premiums</td>
<td>25</td>
</tr>
<tr>
<td>Total Assets</td>
<td>140</td>
</tr>
<tr>
<td>Outstanding Claims</td>
<td>60</td>
</tr>
<tr>
<td>Unearned Premiums</td>
<td>40</td>
</tr>
<tr>
<td>Shareholders' Funds</td>
<td>40</td>
</tr>
</tbody>
</table>

1.4 This is, of course, very much simplified from the real life situation. It does, however, serve to illustrate the extent to which writing general insurance business generates funds available for investment.

1.5 In setting out and commenting on these principles, we do not consider it essential to draw a distinction between capital and income.

Continued.......
2. Four Principles

2.1 To maximise net rate of return.
2.2 To maximise investment security.
2.3 To meet the liabilities.
2.4 To meet legislative requirements.
3. To Maximise the Net Rate of Return

3.1 Maximising the net rate of return provides profit to shareholders, helps cover losses incurred elsewhere (such as an underwriting deficit) and enables competitive premium rates to be set. We feel it is important to emphasise the net rate of return so that the impact of taxation is considered.

3.2 To maximise net rate of return is obtained by giving the investment management freedom to invest in whatever types of investment and wherever their judgement considers appropriate. Minimising the taxation bill increases the net rate of return as does minimising expenses of management and dealing.

3.3 The problem with the means of maximising the net rate of return described in 3.2 above is that it brings one into conflict with the other principles.

Continued.......
4. To Maximise Investment Security

4.1 Investment security is of paramount importance in enabling the company to meet its liabilities. It is also important in providing a steady stream of investment profit which may eventually avoid recourse to shareholders for further capital.

4.2 An important aspect of general insurance investments is the gearing effect on shareholders' fund when investment values fluctuate. In the balance sheet example set out in 1.3, if the value of the investments falls by 17% from 115 to 95, the shareholders' funds are halved from 40 to 20. Alternatively, if the value of the investments falls by 35% from 115 to 75, the shareholders' funds are reduced from 40 to nil.

4.3 Investment security is achieved through investments of low volatility and good marketability and diversification of investments.

4.4 One of the likely results of maximising investment security is to reduce the net rate of return.

Continued.......
5. **To Meet the Liabilities**

5.1 Any business whose liabilities exceed assets is technically insolvent. With a general insurance operation determination of the liabilities is an inexact science. Further, premiums are received subject to credit allowed to intermediaries, at the start of period of cover and claims are paid at some later time. Consequently, it is possible for an unscrupulous operator to continue trading for some considerable time after going technically insolvent by using premium cash flow to pay claims, particularly if the portfolio was expanding by virtue of uneconomically low premium rates. Detection and prevention of this sort of situation is of great importance but largely outside the purpose of this note. It is, however, vitally important that the investments are of sufficient value to meet the liabilities as they fall due for payment either through income or capital disposal.

5.2 This principle is achieved by matching the investments with the liabilities. There are three ways in which we consider matching has to be required.

5.3 Firstly, matching by currency should be sought. For the majority of business, premiums will be received in the same currency as that in which the claims will ultimately be paid. Investment to cover those claims should be made in that currency. An exception to this might be in countries with the more extreme rates of hyper-inflation where switching to one of the major and stable currencies of the world may greatly improve the prospects for matching against such high rates of inflation.

5.4 Secondly, matching by term should be sought. This requires an estimate to be made of the amounts it is expected to pay out divided over appropriate time periods. In doing this, it is helpful to consider what effect a catastrophe such as abnormally severe weather may have which will give rise to a large number of claims many of which will be settled very quickly. It is therefore prudent to retain a reasonable degree of liquidity to cover this sort of eventuality.

Continued........
5.5 Thirdly, matching against inflation should be sought. Generally, claim cost increases over time because of inflation. However, the rate of inflation as it affects claims may be rather different from the commonly quoted retail prices or consumer prices indices. Bodily injury liability claims may well be related to an earnings type inflation. Moreover, where a considerable period of time elapses between the occurrence of a claim and its eventual payment there may be legislative changes or changes in court practices which will increase the cost of a claim.

5.6 Attaining 5.4 suggests investment in fixed interest securities of a suitable term is appropriate. However, this leaves a problem in 5.5 when an increase in the rate of inflation occurs. The traditional hedge against inflation is equity type investments either in shares or in property. These are, however, subject to considerable fluctuation in values and in the case of properties may be difficult to sell in a bear market and thus give no matching by term. Investment in short term deposits enables matching by term to be achieved and also some protection against inflation in so much as the rate of interest may move with the rate of inflation. UK experience in recent years has been that relatively high real rates of interest, both positive and negative, can be achieved. Clearly, a high positive real rate of interest is good but a high negative real rate of interest is a disaster. The introduction of index-linked gilts in the UK is a new investment vehicle which may enable reasonable matching by term and by inflation to be achieved but there are only a fairly limited number of stocks available.

5.7 Investing to meet the liabilities is likely to conflict with maximising the real rate of return.

Continued......
6. To Meet Legislative Requirements

6.1 Any insurance company must meet the legislative requirements of those countries in which it operates. These requirements will vary from a simple minimum solvency margin to considerable restrictions on investment freedom. Assets may well need to be held to cover the liabilities in a country.

Also, there may be non-insurance legislation such as exchange control to consider.

6.2 All such legislative requirements will have to be borne in mind in formulating investment policy and in carrying out in detail.

6.3 Meeting the legislative requirements restricts investment freedom and this is likely to reduce the net rate of return. Where the legislation goes so far as to direct investment into certain channels these may even be unsuitable from the point of view of matching the investments with the liabilities.

Continued......
7. Conclusion

7.1 The four principles set down in Section 2 can be seen to regularly conflict with each other. In practice, the investment management involves balancing the various principles against each other.

7.2 In their paper entitled The Solvency of General Insurance Companies presented to the Institute on February 27 1984, Daykin et alia set out the asset distribution for some major UK companies, as shown below:

Asset Distributions as at December 31 1982

<table>
<thead>
<tr>
<th></th>
<th>Commercial Union</th>
<th>Eagle Star*</th>
<th>General Accident*</th>
<th>Royal</th>
<th>Alliance</th>
<th>GRE</th>
<th>Phoenix*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gilts</td>
<td>46</td>
<td>17</td>
<td>50</td>
<td>33</td>
<td>25</td>
<td>42</td>
<td>35</td>
</tr>
<tr>
<td>Other fixed interest</td>
<td>23</td>
<td>24</td>
<td>33</td>
<td>23</td>
<td>11</td>
<td>18</td>
<td>19</td>
</tr>
<tr>
<td>Equities</td>
<td>15</td>
<td>39</td>
<td>33</td>
<td>43</td>
<td>21</td>
<td>21</td>
<td></td>
</tr>
<tr>
<td>Property</td>
<td>8</td>
<td>13</td>
<td>8</td>
<td>3</td>
<td>23</td>
<td>13</td>
<td>18</td>
</tr>
<tr>
<td>Cash</td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>5</td>
<td>7</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Estimates - precise market values not published.

These assets, besides covering the technical reserves, are partly in respect of shareholders' funds. For shareholders' funds there is a greater freedom to invest for maximum net rate of return with only the security of further profits as a constraint. The following table sets out the shareholders' funds as a percentage of the investments at December 31 1982:

<table>
<thead>
<tr>
<th></th>
<th>Commercial Union</th>
<th>Eagle Star</th>
<th>General Accident</th>
<th>Royal</th>
<th>Alliance</th>
<th>GRE</th>
<th>Phoenix</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
<td>37</td>
<td>44</td>
<td>40</td>
<td>40</td>
<td>53</td>
<td>42</td>
<td>35</td>
</tr>
</tbody>
</table>

The percentage invested in equities and property in the first table is for most of these companies of a similar order to the shareholders' funds percentage. This suggests that companies may tend to relate their equity and property investments to their shareholders' funds.

7.3 In the first table in 7.2 above, there is an important category of asset not considered and that is the uninvested assets. These will be comprised largely of outstanding premiums not yet received. These should be received within 3 months at the most, subject to bad debts.

7.4 Individual companies also need to have regard to their accounting policies and the extent to which credit is actually taken for capital gains in determining that investment policy.