# Advisory Note on Lloyd's US Opinions

## Issued by General Insurance Board

## December 1999

## Section I : Introduction

This note has been issued by the General Insurance Board to supplement the Guidance Note on Lloyd’s US Opinions (GN33). It supercedes the Advisory Note issued in December 1998.

Since GN33 was first issued in December 1997 there have been a number of changes in the scope and wording of the UK Solvency Opinions (as set out in GN20). In relation to the net reserves for the IID, this includes review of the provisions for Unallocated Claims Handling Expenses (“ULAE”) and Reinsurance Bad Debt. In addition, the Board has considered what guidance can be given to actuaries regarding Millennium and other date related risks.

Three Papers have been prepared to assist in dealing with some technical aspects related to these developments. Actuaries providing Lloyd’s US Statements of Actuarial Opinion should have regard to the contents of these Papers where relevant.

The Papers are:

UNALLOCATED LOSS ADJUSTMENT EXPENSE PROVISIONS
(December 1999)
Author: Andrew Newman et al.

REINSURANCE BAD DEBT PROVISIONS
(September 1999)
Author: Richard Bulmer et al.

MILLENNIUM AND OTHER DATE-RELATED RISKS
(December 1999)
Author: David Slater et al.

Copies of these Papers are available from the Secretariat. The General Insurance Board may amend the list of Papers from time to time but will ensure that any changes are publicised to the profession.

The remainder of this Advisory Note describes the “Modified UK Basis” agreed with the New York Insurance Department.  It contains some minor amendments form the Advisory Note issued in December 1998 and includes, in the Appendix , a diagram explaining requirements for different opinions.

## Section II : Lloyd's US Sites Trust Funds : Notes on "Modified UK Basis" agreed with New York Insurance Department (NYID)

### 1. Description of Modified UK Basis

This note is a summary of the "Modified UK Basis" agreed between Lloyd's, the NYID and the actuarial profession during October 1997.

The "Normal UK Basis", before any modifications is as follows:-

[Estimated Ultimate claims]
*less*
[Claims paid]
*less*
[Estimated Ultimate premiums net of commission]
*plus*
[Signed premiums net of commission]

The first term, Estimated Ultimate claims, could be derived using a range of actuarial methods, including development factor methods, Bornhuetter Ferguson etc., applied to underwriting year data triangles. This would be calculated separately for each underwriting year within each Trust Fund. Having estimated the Ultimate Premiums, an Ultimate Loss Ratio (ULR) for each underwriting year can then be derived, equal to Estimated Ultimate Claims / Estimated Ultimate Premiums (net of commission).

**All that follows in this note assumes that the estimated ULR on unearned business is the same as that on earned business, and the same on signed and unsigned premiums. If the actuary has reason to believe that these assumptions do not hold, then the following formulae may need to be modified accordingly. In addition, we also assume that the modifications to the Normal UK Basis apply at the year of account level within each Trust Fund.**

The Modified UK Basis is the same as the Normal UK Basis, with modifications relating to the Unearned Premium reserve (minimum of 100% ULR) and in addition a bad debt reserve on the earned unsigned premiums (minimum of 25%). These are explained further below.

1. **Unearned premium reserve.** The element of the claims reserve arising in relation to Unearned premiums is set to a minimum of 100% of the unearned premiums (signed plus unsigned) net of commission. In other words, the unearned premium reserve for each underwriting year is set to

    Maximum (100%, ULR) x Unearned premiums (Signed plus Unsigned) net of commission

    Thus, if, for any underwriting year, the ULR is less than 100%, then an amount equal to

    [100%-ULR] x Unearned Signed premiums net of commission
    *plus*
    [100% - ULR] x Unearned Unsigned premiums net of commission

    will need to be added to the reserve estimated under the "Normal UK Basis".

If the ULR is greater than 100% for a particular underwriting year, then no additional amount will need to be added to the reserve estimated under the Normal UK Basis for the unearned premium reserves.

**2.** **Bad debt reserve.** The actuary must assess the bad debt reserve in respect of the earned unsigned premiums, with a minimum of 25% of the earned unsigned premiums. Hence, if the actuary estimates a bad debt reserve of B% of the earned unsigned premiums for a particular underwriting year, then an additional amount will need to added to the reserve under the “Normal UK Basis” equal to:-

    Max (25%, B%) x Estimated Earned Unsigned Premiums.

In addition, after the bad debt reserve has been assessed, the overall profit on the earned unsigned premiums must be at most zero. In most cases, the claims paid will not be divided between those in respect of signed and unsigned premiums. Hence, in the formulae and examples that follow, reference to "claims paid" in the calculation of the reserve on the earned signed element is intended to include the claims paid on the earned unsigned element as well. This means that the condition of a maximum profit of zero on the unsigned element, becomes a minimum reserve of zero (because the claims paid have already been deducted in the calculation of the reserve on the earned signed premiums).

The remainder of this note is divided into two further sections:-

2. Additional explanatory points on Modified UK Basis; and
3. Formulae and examples of Modified UK Basis.

## 2. Additional explanatory points on application of Modified UK Basis

1. For each Trust Fund, no cross subsidy is allowed between separate economic entities. This is consistent with the UK Solvency SAOs. Hence, as at 31 December 1997, no cross subsidy is allowed between underwriting years 1995, 1996 and 1997. If 1995 is closed into 1996 as at 31 December 1997, then, as at 31 December 1998, cross subsidy will be allowed between 1995 and 1996, but not between these years and 1997 and 1998. For each Trust Fund, cross subsidy is allowed between classes of business within each economic entity.

2. The actuary may rely upon the data supplied by the managing agent with regard to the earned / unearned proportions, but should satisfy him or herself that these have been derived using reasonable methods and assumptions.

3. It is likely that the proportion of the signed premium that is earned will be different from the proportion of unsigned premium that is earned. In general, one would expect the signed premium to have a higher percentage earned. If this is the case, then in circumstances where it is difficult to estimate the proportion of the unsigned premium that is earned, it should be cautious to use either the proportion of the signed premium that is earned, or the proportion of ultimate premiums (i.e. signed plus unsigned) that is earned, applied to the unsigned premium when estimating the bad debt reserve.

4. It can be shown that, if B<25% and

a) ULR>100%, then reserve = Normal UK Basis reserve plus 25% x earned unsigned premiums; or

b) ULR<75% then reserve can be derived from signed premiums only, i.e .
Reserve = ULR x earned signed premiums plus unearned signed premiums less claims paid ; or

c) 75%<ULR<100%, then reserve can be derived using same formula as b) with an additional reserve for bad debts of (ULR-75%) x unsigned earned premiums, net of commission.

5. The Modified UK Basis does not require a reserve for commissions or acquisition expenses, and the other elements of New York Law also do not apply (such as Minimum loss ratios for certain liability classes or Minimum IBNR percentages for Fidelity and Surety).

## 3. Modified UK Basis – Formulae and example

The reserve on this basis for each underwriting year can be broken down into signed and unsigned premiums as follows:-

1. Reserve on Signed premiums

Reserve = [Ultimate earned losses on signed premiums]
less
[Claims paid]
plus
[Max (100%, ULR) x unearned signed premiums, net of commission]

Hence, if ULR<=100%, then an amount equal to [100%-ULR] x signed and unearned premiums will need to be added to the reserve under the Normal UK Basis. If ULR>100%, then nothing will need to be added to the reserve under the Normal UK Basis.

2. Reserve on Unsigned premiums

(i) Earned element

Reserve = [Ultimate earned losses on Unsigned premiums]
less
[Unsigned and earned premiums, net of commission]
plus
[Max (B%, 25%) x Unsigned and earned premiums, net of commission]

Subject to this element being at least zero. (B% is the estimated bad debt proportion on the earned unsigned premiums). Note that where claims have been paid in respect of the unsigned and earned premiums, and they have been separately identified (and not included in the claims paid in 1 above) then they will need to be deducted from the reserve item above. The zero maximum condition will apply before the deduction. The subsequent formulae and examples all assume that the claims paid on the earned unsigned element are either zero, or are included in the overall claims paid used in the calculation of the reserve on the earned signed premiums.

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Max (0, [(ULR – Min (100%- B%, 75%)) x earned and unsigned premiums])
= Max (0, (ULR + B% - 100%), ULR - 75%) x earned and unsigned premiums

Thus, if B<25%, then this reserve will be zero if ULR <=75%, and equal to [ULR – 75%] x earned and unsigned premiums if ULR>75%. In other words, if B<25% and ULR<=75%, then an amount equal to

[100% - ULR] x earned and unsigned premiums will need to be added to the reserve calculated under the Normal UK Basis;

and if ULR>75%, then an amount equal to 25% x earned and unsigned premiums will need to be added to the reserve calculated under the Normal UK Basis.

<u>(ii) Unearned element</u>

Reserve = [(Max (100%,ULR) – 100%) x Unsigned and unearned premiums, net of commission]

= [(Max (0, ULR – 100%) x Unsigned and unearned premiums, net of commission]

This will clearly be zero if the ULR<=100%. Hence, if ULR<=100%, then an amount equal to [100%-ULR] x unsigned and unearned premiums will need to be added to the reserve under the Normal UK Basis. If ULR>100%, then nothing will need to be added to the reserve under the Normal UK Basis.

Hence, if B<25%, the Modified UK Basis reduces to:-

ULR x earned proportion of signed premiums, net of commission

Less

Claims Paid

Plus

Max (100%, ULR) x unearned proportion of signed premiums, net of commission

Plus

[Max(100%, ULR)-1] x unearned proportion of unsigned premiums, net of commission

Plus

Max (0, ULR-75%) x earned unsigned premiums, net of commission

**Example**

Assume,

signed premium = 80 (net of commission)

unsigned premium = 80 (net of commission)

Paid claims = 2

Earned proportion of signed premium = 50%

Earned proportion of unsigned premium = 5%

Bad debt reserve on earned unsigned premium = 10%

***If ULR was 130%, then***

Reserve on Normal UK Basis would be:-

130% x [80+80] -2 -80 = 126

Additional amounts on Modified UK Basis would be -

Unearned premium reserve = 0 (since ULR>100%)

Earned, unsigned premiums = 25% x earned unsigned premiums
= 25% x 5% x 80 = 1.

Hence, total reserve on Modified UK Basis is 127.

***If ULR was 65%, then***

Reserve on Normal UK Basis would be:-

65% x [80+80] -2 -80 = 22

Additional amounts on Modified UK Basis would be -

Unearned premium reserve = 35% x 50% x 80 + 35% x 95% x 80 = 40.6

Earned, unsigned premiums = 35% x 5% x 80 = 1.4.

Hence, total reserve on Modified UK Basis is 64 (ie the reserve on the signed premium only)

***If the ULR was 90%, then***

Reserve on Normal UK Basis would be:-

90% x [80+80] -2 - 80 = 62

Additional amounts on Modified UK Basis would be -

Unearned premium reserve = 10% x 50% x 80 + 10% x 95% x 80 = 11.6

Earned, unsigned premiums = 25% x 5% x 80 = 1

Hence, total reserve on Modified UK Basis is 74.6 (ie reserve on signed premium plus bad debt reserve on earned unsigned).

APPENDIX

**Opinions Required for Lloyd’s Syndicates Writing US Business**

The opinions required are shown diagrammatically below: -

<table>
<tr>
<td><u>OPINION 1</u><br>Overall Syndicate Reserves (all business signed into the 1993 and subsequent years of account)<br>Net of reinsurance – i.e. complementing the NAIC IID financial filing format</td>
<td colspan="2">OPINION 2<br>Reserves held in US surplus lines trust (from 1.8.95)<br>Gross of reinsurance</td>
<td>OPINION 3<br>Reserves held in US credit for reinsurance trust (from 1.8.95)<br>Gross of reinsurance</td>
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<td></td>
<td colspan="3">Required by NYID</td>
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<td colspan="2">Required by IID</td>
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