Market Bulletin

LLOYD'S

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REFERENCE:	g/amipro/dec97/presmouk/Y748
SUBJECT:	US REPORTING : MODIFIED UK BASIS OF RESERVING
ACTION POINTS:	**Gross reserves for the US situs trust funds to be calculated using the modified UK basis of reserving**
DEADLINE:	**Year end reserves for the US situs trust funds to be completed by 10 February 1998**

Further to the two market bulletins issued on 14 November 1997 (references Y729 and Y730), concerning actuarial opinions on year end reserves for the US situs trust funds and Schedule F & P reporting respectively, I enclose some guidance notes on the modified UK basis of reserving, issued by the General Insurance Board of the Faculty and Institute of Actuaries. Managing agents are advised to also bring the contents of this bulletin to the attention of the in-house or external actuary responsible for issuing the required actuarial opinions on their syndicates' US situs trust fund year end reserves.

Agents have already received instructions on how to report the various adjustments under the modified UK basis of reserving within the Schedule P forms. However, there is one matter which requires further clarification, being the calculation of the provision on earned, unsigned premiums. As previously advised within the Schedule P instructions for US situs trust fund business, a provision of at least 25% of earned, unsigned premiums (net of commission and brokerage) must be set up in Column 17, Part 1, regardless of the level of the loss ratio applied to ultimate premiums. In addition, the New- York Insurance Department has very recently indicated that it will not be acceptable to reserve earned, unsigned premiums across all classes of business at less than 100%, including the 25% minimum provision referred to above. So where a syndicate has applied a loss ratio of less than 75% to earned, unsigned premiums, it w-ill be necessary to create a provision of 100% minus the ultimate loss ratio as a minimum in column 17. As with the 25% minimum provision on earned, unsigned premiums, this potential additional provision applies to all classes of business combined rather than each individual class of business so there can be some cross subsidisation of provisions between individual classes of business in any year of account. I would however remind managing agents that cross subsidisation between individual years of-account is NOT permitted.

If you have any queries relating to this bulletin, please contact Lucy Morrison on extension 5426 or Leslie Rosenberg on extension 6317.

This bulletin is being sent to the compliance officer of all managing agents for action and to recognised auditors for information.

Patricia Hakong

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Lloyd's US Situs 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. 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.

The two modifications to the Normal UK Basis are:-

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 be 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 reserve on the earned unsigned premiums must be at least zero.

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.

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 various 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).

ie

Max (0, [(ULR - Min (100%- B%, 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]

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)-l] 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).