South African Reserve Bank

Prudential Authority

Prudential Standard FSL 3

Valuation of Technical Provisions by Lloyd's

Objectives and Key Requirements of this Prudential Standard

This Standard sets out how Lloyd's must value its technical provisions for the purposes of meeting its security requirements for insurance business conducted by Lloyd's underwriters in South Africa.

The ultimate responsibility for the accurate valuation of technical provisions arising from insurance business conducted by Lloyd's underwriters in South Africa rests with Lloyd's of London and it representative in South Africa. The head of the actuarial function for Lloyd's South Africa is responsible for providing assurance to the representative regarding the accuracy of the calculations and the appropriateness of the assumptions underlying the valuation of Lloyd's South Africa technical provisions.

The key principles and requirements of this Standard are:

- *Lloyd's must establish technical provisions that correspond to the current value of its insurance obligations;*
- *Lloyd's must segment its insurance obligations into homogeneous risk groups when calculating the value of technical provisions;*
- *The calculation of the technical provisions must incorporate a best estimate and a risk margin;*
- *Lloyd's must use actuarial and statistical methods that are proportionate to the nature, scale and complexity of the risks to calculate its technical provisions;*
- *The calculation of technical provisions must take account of the time value of money by using the relevant risk-free interest rate term structure specified by the Prudential Authority; and*
- *Lloyd's is permitted to apply simplified methods in calculating technical provisions, subject to such methods satisfying the principle of proportionality.*

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1. Application

1.1.   This Standard applies to Lloyd's in respect of insurance business conducted by Lloyd's underwriters in South Africa.[1]

1.2.   Unless otherwise indicated, all references to "insurer" in this Standard or in any other Standard referred to in this Standard can be read as a reference to Lloyd's. Similarly, a reference to "insurance" obligations/policies can be read as a reference to "reinsurance" obligations/policies, unless otherwise specified.

2. Roles and Responsibilities

2.1.   Lloyd's of London and its representative in South Africa are ultimately responsible for ensuring that the valuation of the liabilities stemming from the insurance obligations of Lloyd's in respect of insurance business conducted by Lloyd's underwriters in South Africa complies with the principles and requirements set out in this Standard. Lloyd's must ensure it has in place the necessary resources, systems, procedures and controls to value insurance liabilities according to the principles and requirements of this Standard on an ongoing basis.

2.2.   The head of the actuarial function for Lloyd's South Africa is responsible for expressing an opinion to Lloyd's on the valuation of technical provisions. In providing this assurance, the head of the actuarial function must have regard to the principles and requirements of this Standard, as well as relevant professional standards of the Actuarial Society of South Africa or a society or institute that has mutual recognition with the Actuarial Society of South Africa.

2.3.   The auditor appointed by Lloyd's under section 32 of the Insurance Act, 2017 (the Act), must provide assurance to Lloyd's of London and its representative in South Africa that the valuation of Lloyd's technical provisions in respect of insurance business conducted by Lloyd's underwriters in South Africa complies with the requirements of this Standard. The auditor must report to Lloyd's, the representative of Lloyd's in South Africa and the Prudential Authority any matters identified during the performance of its responsibilities that may cause Lloyd's not to comply with the requirements of this Standard.

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[1] "insurance business conducted by Lloyd's underwriters in South Africa" means:

- All risks of South African policyholders underwritten by Lloyd's underwriters irrespective of where the risks are located (includes direct placements or placements through a South African binder holder); and
- All South African risks underwritten by Lloyd's underwriters irrespective of who the policyholder is.

2.4. The roles and responsibilities of the representative of Lloyd's and the actuarial function of Lloyd's South Africa are described in more detail in the Governance and Operational Standards for Lloyd's (GOL 1).

3. Commencement and Transition Provisions

3.1. This Standard commences on 1 July 2018.

Version Number	Commencement Date
1	1 July 2018

4. General Principles for Valuing Technical Provisions

4.1. Lloyd's must value its technical provisions according to the principles and requirements of Prudential Standard FSI 2.2 (Valuation of Technical Provisions), except where specifically mentioned in this Standard. This Standard follows the same structure as FSI 2.2, highlighting exceptions and adjustments to the requirements of FSI 2.2 where appropriate to the nature of the insurance business conducted by Lloyd's and Lloyd's underwriters in South Africa.

4.2. All general principles for valuing technical provisions set out in section 4 of FSI 2.2 (with an adjustment to section 4.2 as outlined below) apply to the valuation of the liabilities of Lloyd's stemming from its insurance obligations in respect of insurance business conducted by Lloyd's underwriters in South Africa.

4.3. Section 4.2 of FSI 2.2 is replaced by the following:

The value of technical provisions must comprise a best estimate and a risk margin. The best estimate must first be calculated on a gross basis, without deducting the amounts recoverable from eligible reinsurance contracts. Lloyd's may then allow for all amounts recoverable from eligible reinsurance contracts to calculate the net best estimate. The risk margin must be calculated as a percentage of the net best estimate.

5. Segmentation

5.1. The requirements set out in section 5 of FSI 2.2 apply, subject to the adjustment set out below.

5.2. The requirements set out in section 5.5 of FSI 2.2 are replaced by the following requirement:

Segmentation must be applied to both the valuation of the best estimate and risk margin.

6. Methodology for Calculating the Best Estimate Liability

6.1. The requirements set out in section 6 of FSI 2.2 apply, subject to the exceptions and adjustment set out below.

6.2. The requirements set out in the following sections of FSI 2.2 do not apply:

a) Sections 6.10 to section 6.12; and

b) Sections 6.28 to section 6.40.

6.3. The requirements set out in section 6.5 of FSI 2.2 are replaced by the following requirements:

The best estimate must be calculated gross, without deduction of amounts recoverable from eligible reinsurance contracts. Recoverables from eligible reinsurance contracts must be calculated separately. Where co-insurance exists between Lloyd's and other insurers or reinsurers, the cash-flows of Lloyd's must be calculated based on the proportion of the expected cash-flows for Lloyd's, without deducting amounts recoverable from eligible reinsurance.

6.4. All sections in Attachment 2 (Cash-flow projections) of FSI 2.2 apply.

7. Recognition of Insurance Contracts

7.1. All requirements set out in section 7 of FSI 2.2 apply.

8. Contract Boundary

8.1. All requirements set out in section 8 of FSI 2.2 apply.

9. Recognition of Insurance Premiums

9.1. The requirements set out in section 9 of FSI 2.2 apply except for the requirements set out in the following sections:

a) Section 9.1(b); and
b) Section 9.3.

10. Valuation of Options and Guarantees

10.1. The requirements set out in section 10 of FSI 2.2 apply except for the requirements set out in the following sections:

a) Section 10.2; and
b) Sections 10.11 to section 10.12.

11. Treatment of Future Discretionary Benefits

11.1. Section 11 of FSI 2.2 does not apply to Lloyd's.

12. Recoverables

12.1. The requirements set out in section 12 of FSI 2.2 apply, subject to the adjustments set out below.

12.2. Lloyd's must only use eligible reinsurance contracts as risk mitigation instruments.

12.3. The requirements of section 12.5 of FSI 2.2 have been adjusted and are replaced by the following requirements:

Any assumptions regarding the amounts recoverable from eligible reinsurance contracts used in the valuation of technical provisions must adhere to the principles and methodology set out in section 12 of FSI 2.2 and Attachment 3 (Adjusting Recoverables for Counterparty Default Risk) of FSI 2.2. Notwithstanding this provision, Lloyd's is not required to calculate a risk margin for amounts recoverable from eligible reinsurance contracts, given that a single net calculation of the risk margin must be performed.

12.4. The requirements of section 12.9 of FSI 2.2 have been adjusted and are replaced by the following requirements:

If payments to Lloyd's from reinsurers do not directly depend on the claims against the cedent,[2] the amounts recoverable for future claims should only be taken into account to the extent it is possible for the structural mismatch between claims and amounts recoverable to be measured in a prudent, reliable and objective manner.

12.5. All sections in Attachment 3 (Adjusting Recoverables for Counterparty Default Risk) of FSI 2.2 apply.

13. Discount Rates

13.1. The requirements set out in section 13 of FSI 2.2 apply except for the requirements set out in the following sections:

a) Section 13.2; and
b) Sections 13.5 to section13.9.

13.2. All sections in Attachment 4 (Deriving the Risk-free Interest Rate Term Structure for Foreign Currencies) of FSI 2.2 apply.

14. Risk Margin

General methodology for calculating the risk margin

14.1. This section replaces section 14 in FSI 2.2.

14.2. The value of technical provisions must comprise a best estimate and a risk margin. The risk margin is the part of the technical provision that ensures that the value of the technical provisions sufficiently captures the uncertainty in the best estimate calculations.

14.3. The risk margin must be calculated as a percentage of the best estimate technical provisions, after allowing for recoverables from eligible reinsurance contracts, (at t = 0, i.e. the valuation date) in the following manner:

$$RM = \alpha_{slb} \cdot BEL_{Net,RSA}(0)$$

Where:

RM = The risk margin

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[2] Instances where this may arise include arrangements where payments are made according to certain external indicators, such as an earthquake index.

$$\alpha_{slb} \quad = \quad \text{A fixed percentage for the given (sub-)line of business}$$

$$BEL_{Net,RSA}(0) \quad = \quad \text{The best estimate technical provisions net of Eligible Reinsurance as assessed at } t = 0 \text{ (i.e. the valuation date) for the portfolio of insurance obligations of Lloyd's}$$

14.4. Lloyd's must perform the risk margin calculations using the percentages in the table below for the relevant (sub-)lines of business.

	Level 1		Level 2		Level 3	α_{lob}
1.	Motor	a.	Personal lines			6.9%
		b.	Commercial lines			7.5%
2.	Property	a.	Personal lines			5.4%
		b.	Commercial lines			9.1%
3.	Agriculture	a.	Personal lines	i.	Crop	13.5%
				ii.	Equipment	13.5%
				iii.	Other	13.5%
		b.	Commercial lines	i.	Crop	13.5%
				ii.	Equipment	13.5%
				iii.	Other	13.5%
4.	Engineering			i.	Liability	17.2%
				ii.	Other	9.5%
5.	Marine	a.	Personal lines	i.	Property	12.9%
				ii.	Liability	17.2%
		b.	Commercial lines	i.	Property	12.9%
				ii.	Liability	17.2%
6.	Aviation	a.	Personal lines	i.	Property	15.2%
				ii.	Liability	17.2%
		b.	Commercial lines	i.	Property	15.2%
				ii.	Liability	17.2%
7.	Transport	a.	Personal lines	i.	Property	14.7%
				ii.	Liability	17.2%
		b.	Commercial lines	i.	Property	14.7%
				ii.	Liability	17.2%
8.	Rail			i.	Property	14.7%
				ii.	Liability	17.2%
9.	Legal Expense	a.	Personal lines			30.1%
		b.	Commercial lines			30.1%
10.	Liability			i.	Directors and officers	17.2%
				ii.	Employer liability	17.2%
				iii.	Fidelity guarantee	17.2%
				iv.	Product liability	17.2%
				v.	Professional indemnity	17.2%
				vi.	Public liability	17.2%
				vii.	Other	17.2%
11.	Consumer Credit	a.	Personal lines			11.0%
		b.	Commercial lines			11.0%
12.	Trade Credit					11.0%
13.	Guarantee	a.	Personal lines			11.0%

	Level 1		Level 2		Level 3	α_{lob}
		b.	Commercial lines			11.0%
14.	Accident And Health	a.	Personal lines	i.	Individual	14.5%
		b.	Commercial lines	i.	Individual	14.5%
				ii.	Group	14.5%
15.	Travel	a.	Personal lines	i.	Individual	12.1%
		b.	Commercial lines	i.	Individual	12.1%
				ii.	Group	12.1%
16.	Miscellaneous	a.	Personal lines	i.	Warranty	32.6%
				ii.	Pet insurance	32.6%
				iii.	Other	32.6%
		b.	Commercial lines			32.6%
17.	Terrorism			i.	Motor	17.5%
				ii.	Property	17.5%
				iii.	Engineering	17.5%
				iv.	Other	17.5%
18.	Reinsurance[3]	a.	Proportional Treaty			Same as direct lines
		b.	Non-Proportional Treaty			27.8%
		c.	Other insurance risk mitigation Treaty			27.8%
		d.	Proportional Facultative			Same as direct lines
		e.	Non-Proportional Facultative			27.8%
		f.	Other insurance risk mitigation Facultative			27.8%

15. Calculating Technical Provisions as a Whole

15.1.   Section 15 of FSI 2.2 does not apply to Lloyd's.

16. Taxation

16.1.   Section 16 of FSI 2.2 does not apply to Lloyd's.

17. Simplifications for Valuing Technical Provisions and the Principle of Proportionality

17.1.   All requirements set out in section 17 of FSI 2.2 apply.

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[3] Inwards reinsurance must be further segmented into each of the above lines and (sub-)lines of business based on the type of obligations being reinsured.

17.2. An additional simplification to calculate the best estimate technical provision has been provided for Lloyd's specifically and is set out in Attachment 1 of this Standard. This simplification contains the calculation of the best estimate technical provisions on a net basis, after allowing for reinsurance contracts.

Attachment 1: Simplification for Valuing the Best Estimate of Technical Provisions

1. This simplification must be used until otherwise agreed with the Prudential Authority when valuing the technical provisions related to insurance business conducted by Lloyd's underwriters in South Africa.

2. This simplification allows Lloyd's to value its technical provisions for insurance business conducted by Lloyd's underwriters in South Africa using benchmarks calculated annually from the Lloyd's global data. This includes technical provisions in respect of all insurance policies of Lloyd's calculated in line with Solvency II, which is provided to Lloyd's annually by syndicates reporting their Solvency II provisions through the Technical Provisions Data (TPD) collection.

3. Lloyd's calculations of technical provisions arising from insurance business conducted by Lloyd's underwriters in South Africa, relies on the data extractions of the South African specific data from three data sources:

    *   Xchanging Insure Services (XIS)
    *   Lloyd's Direct Reporting (LDR)
    *   "Non-Xchanging"

    Extractions are taken from these sources for the following data:

    *   Gross of reinsurance outstanding claims
    *   Gross of reinsurance paid claims
    *   Gross of reinsurance and gross of commission signed premiums
    *   Gross of reinsurance and net of commission signed premiums

4. Any reference made to a (sub-)line of business in this attachment must be read as reference to the segmentation of classes of business at which Lloyd's carries out the technical provisions projections. Actuarial judgement must be applied to determine appropriate segmentation considering the homogeneity and stability of business across segments.

5. The best estimate technical provision calculated below must be mapped to the South African (sub-)lines of business in section 14.4 in this Standard in order to calculate the risk margin. This mapping is provided by the Prudential Authority and any changes to this mapping must only be used if approved by the Prudential Authority.

6. In terms of the simplification, the following formula must be used to calculate the net best estimate technical provision:

    $$BEL_{Net,RSA} = BEL_{Gross,RSA} \cdot (1 - RI_{RSA})$$

    Where:

$BEL_{Net,RSA}$	=	Best estimate of technical provisions for insurance business conducted by Lloyd's underwriters in South Africa including the effect of reinsurance
$BEL_{Gross,RSA}$	=	Best estimate of technical provisions for insurance business conducted by Lloyd's underwriters in South Africa excluding the effect of reinsurance

$$RI_{RSA} \quad = \quad \text{Percentage of reinsurance credit approved by the Prudential Authority}$$

7. Lloyd's is required to estimate the percentage of reinsurance credit (RI_{RSA}) on an annual basis using actuarial judgement and samples of reinsurance recoveries made on South African specific claims. This percentage must be approved by the Prudential Authority on an annual basis.

8. The best estimate of technical provisions, excluding the effect of reinsurance, must be valued using the following formula.

$$BEL_{Gross,RSA} = (PP_{RSA} + CP_{RSA}) \cdot Adj_{RSA}$$

Where:

PP_{RSA}	=	Estimate of the premium provision for insurance business conducted by Lloyd's underwriters in South Africa
CP_{RSA}	=	Estimate of the claims provisions for insurance business conducted by Lloyd's underwriters in South Africa
Adj_{RSA}	=	Adjustment factor used to increase technical provisions based on any balancing item adjustments and expert judgement. The factor must not be less than 1.

9. The best estimate of the premium provision (PP_{RSA}) is defined as the expected present value of future in- and out-going cash flows arising from claims events occurring after the valuation date (i.e. the unexpired portion of in-force business) and during the remaining in-force coverage period of existing policies. It is calculated as follows:

$$PP_{RSA} = \sum_{slb,YoA} PP_{RSA,slb,YoA}$$

Where:

$PP_{RSA,slb,YoA}$	=	Estimate of the premium provision for insurance business conducted by Lloyd's underwriters in South Africa, per (sub-)line of business and year of account

10. The estimate of the premium provision for insurance business conducted by Lloyd's underwriters in South Africa, per (sub-)line of business and year of account, must be calculated using the following formula:

$$PP_{RSA,slb,YoA} = UCR_{RSA,slb,YoA} + UEP_{RSA,slb,YoA} - UFP_{RSA,slb,YoA}$$

Where:

$PP_{RSA,slb,YoA}$ = Estimated premium provision for insurance business conducted by Lloyd's underwriters in South Africa, per (sub-)line of business and year of account

$UCR_{RSA,slb,YoA}$ = Estimate of the net present value of all future claims payments arising from insurance business conducted by Lloyd's underwriters in South Africa in respect of claims events occurring after the valuation date, per (sub-)line of business and year of account

$UEP_{RSA,slb,YoA}$ = Estimate of the net present value of all future claims management and claims administration expenses arising from insurance business conducted by Lloyd's underwriters in South Africa relating to claims events occurring after the valuation date and all future expenses (including commissions) relating to on-going administration of in-force policies, per (sub-)line of business and year of account

$UFP_{RSA,slb,YoA}$ = Estimate of the net present value of all premiums arising from insurance business conducted by Lloyd's underwriters in South Africa that will be received in future but relating to the unexpired risk exposure of policies in force at the valuation date, per (sub-)line of business and year of account

11.   Each of the elements in the above formula are calculated as described below.

$$UCR_{RSA,slb,YoA} = CR_{RSA,slb,YoA} \cdot \frac{UCR_{MKT,slb,YoA}}{CR_{MKT,slb,YoA}}$$

Where:

$CR_{RSA,slb,YoA}$ = Estimate of the net present value of future claims payments arising from insurance business conducted by Lloyd's underwriters in South Africa, per (sub-)line of business and year of account

$UCR_{MKT,slb,YoA}$ = Net present value of all future claims payments from all Lloyd's policies in respect of claims events occurring after the valuation date, per (sub-)line of business and year of account, calculated in line with Solvency II

$CR_{MKT,slb,YoA}$ = Net present value of all future claims payments from all Lloyd's policies, per (sub-)line of business and year of account, calculated in line with Solvency II

$$UEP_{RSA,slb,YoA} = UCR_{RSA,slb,YoA} \cdot \frac{UEP_{MKT}}{UCR_{MKT}}$$

Where:

$UCR_{RSA,slb,YoA}$ = Calculated as defined above

UEP_{MKT}	=	Net present value of all future claims management and claims administration expenses from all Lloyd's policies relating to claims events occurring after the valuation date and all future expenses (including commissions) relating to on-going administration of inforce policies, calculated in line with Solvency II
UCR_{MKT}	=	Net present value of all future claims payments from all Lloyd's policies in respect of claims events occurring after the valuation date, calculated in line with Solvency II

$$UFP_{RSA,slb,YoA} = FP_{RSA,slb,YoA} \cdot \frac{UFP_{MKT,slb,YoA}}{FP_{MKT,slb,YoA}}$$

Where:

$FP_{RSA,slb,YoA}$	=	Estimate of the net present value of all premiums arising from insurance business conducted by Lloyd's underwriters in South Africa that will be received in future, per (sub-)line of business and year of account
$UFP_{MKT,slb,YoA}$	=	Net present value of premiums from all Lloyd's policies that will be received in future but relating to the unexpired risk exposure of policies in force at the valuation date, per (sub-)line of business and year of account, calculated in line with Solvency II
$FP_{MKT,slb,YoA}$	=	Net present value of premiums from all Lloyd's policies that will be received in future, per (sub-)line of business and year of account, calculated in line with Solvency II

12. The best estimate of the claims provision (CP_{RSA}) is defined as the expected present value of future in- and out-going cash flows arising from claims events that have occurred prior to the valuation date (i.e. the expired portion of in-force business or business that was in-force prior the valuation date). It is calculated as follows:

$$CP_{RSA} = \sum_{slb,YoA} CP_{RSA,slb,YoA}$$

Where:

$CP_{RSA,slb,YoA}$	=	Estimate of the claims provision for insurance business conducted by Lloyd's underwriters in South Africa, per (sub-)line of business and year of account

13. The best estimate of the claims provision for insurance business conducted by Lloyd's underwriters in South Africa, per (sub-)line of business and year of account, must be calculated using the following formula.

$$CP_{RSA,slb,YoA} = ECR_{RSA,slb,YoA} + EEP_{RSA,slb,YoA} - EFP_{RSA,slb,YoA}$$

Where:

$CP_{RSA,slb,YoA}$	=	Estimated claims provision per (sub-)line of business and year of account
$ECR_{RSA,slb,YoA}$	=	Estimate of the net present value of all future claims payments arising from insurance business conducted by Lloyd's underwriters in South Africa in respect of claims events occurring before or at the valuation date (i.e. past exposure), whether the claims arising from those events have been reported or not, per (sub-)line of business and year of account
$EEP_{RSA,slb,YoA}$	=	Estimate of the net present value of all future claims management and claims administration expenses arising from insurance business conducted by Lloyd's underwriters in South Africa in respect of claims events occurring prior to the valuation date, whether the claims arising from those events have been reported or not, per (sub-)line of business and year of account
$EFP_{RSA,slb,YoA}$	=	Estimate of the net present value of all premiums arising from insurance business conducted by Lloyd's underwriters in South Africa that will be received in future but relating to the claims events that have occurred before or at the valuation date (i.e. relating to earned exposure), per (sub-)line of business and year of account

14. Each of the elements in the above formula are calculated as described below:

$$ECR_{RSA,slb,YoA} = CR_{RSA,slb,YoA} \cdot \frac{ECR_{MKT,slb,YoA}}{CR_{MKT,slb,YoA}}$$

Where:

$CR_{RSA,slb,YoA}$	=	Calculated as defined above
$ECR_{MKT,slb,YoA}$	=	Net present value of all future claims payments from all Lloyd's policies in respect of claims events occurring before or at the valuation date (i.e. past exposure) whether the claims arising from those events have been reported or not, per (sub-)line of business and year of account, calculated in line with Solvency II
$CR_{MKT,slb,YoA}$	=	Calculated as defined above

$$EEP_{RSA,slb,YoA} = ECR_{RSA,slb,YoA} \cdot \frac{EEP_{MKT}}{ECR_{MKT}}$$

$ECR_{RSA,slb,YoA}$	=	Calculated as defined above

EEP_{MKT}	=	Net present value of all future claims management and claims administration expenses from all Lloyd's policies relating to claims events that have occurred prior to the valuation date, calculated in line with Solvency II
ECR_{MKT}	=	Net present value of all future claims payments from all Lloyd's policies in respect of claims events occurring before or at the valuation date(i.e. past exposure) whether the claims arising from those events have been reported or not, calculated in line with Solvency II

$$EFP_{RSA,slb,YoA} = FP_{RSA,slb,YoA} \cdot \frac{EFP_{MKT,slb,YoA}}{FP_{MKT,slb,YoA}}$$

Where:

$FP_{RSA,slb,YoA}$	=	Calculated as defined above
$EFP_{MKT,slb,YoA}$	=	Net present value of premiums from all Lloyd's policies that will be received in future but correspond to the claims events that have occurred before or at the valuation date (i.e. future premiums relating to earned exposure), per (sub-)line of business and year of account, calculated in line with Solvency II
$FP_{MKT,slb,YoA}$	=	Calculated as defined above