LSEG POST TRADE   **LCH**

LCH Ltd Stress Testing and Assessment Disclosure

28-Mar-24

SwapClear (DF €6.1 bn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	103%	141%	179%	220%	250%	284%	300%	300%
Scenario Number	1519	1519	1519	1519	1519	1519	1519	1519
Scenario Type	Historical	Historical	Historical	Historical	Historical	Historical	Historical	Historical
Scenario Description	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman

RepoClear (DF €689 mn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	44%	54%	67%	76%	85%	91%	96%	105%
Scenario Number	2030	2030	2030	2030	2030	2030	2030	2030
Scenario Type	Historical	Historical	Historical	Historical	Historical	Historical	Historical	Historical
Scenario Description	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening

EquityClear (DF €176 mn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	0%	0%	0%	30%	41%	47%	51%	52%
Scenario Number	1993	1993	1993	1993	1993	1993	1993	1993
Scenario Type	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical
Scenario Description	Antithetic of 1987 Stock market crash	Antithetic of 1987 Stock market crash	Antithetic of 1987 Stock market crash	Antithetic of 1987 Stock market crash	Antithetic of 1987 Stock market crash	Antithetic of 1987 Stock market crash	Antithetic of 1987 Stock market crash	Antithetic of 1987 Stock market crash

ForexClear (DF €2.0 bn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	43%	45%	49%	50%	61%	65%	66%	82%
Scenario Number	374	374	1095	1095	1095	1095	1095	1095
Scenario Type	Theoretical	Theoretical	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR
Scenario Description	USD depreciation	USD depreciation	EM up/ AUD depreciation	EM up/ AUD depreciation	EM up/ AUD depreciation	EM up/ AUD depreciation	EM up/ AUD depreciation	EM up/ AUD depreciation

Number of defaults:

N represents the number of member groups in default. A member group may contain more than 1 member, and all client accounts within the members. Defaults are assumed to be instantaneous and under the same stress conditions (i.e. the same scenario).

For example the worst 6 defaults is assumed to occur under the same scenario, however this could be a different scenario to the worst 7 defaults.

Stress losses over total margin (STLOTM) is used in this simulation. The aggregation of stress losses over margin follow the member and customer account segregation rules.

Skin in the Game Loss:

Represents the percentage of 'skin in the game' capital loss for each default fund waterfall. LCH skin in the game capital is ahead of non defaulter contributions.

Remaining Non Defaulter Assessments:

Represents the estimated maximum unfunded contribution payable to LCH for a given number of defaults. The figures are expressed as a percentage of the funded default fund contribution.

For example if a member had contributed $10m to the default fund and assessment is 196% for 5 defaults, then the member is liable to pay $19.6m in the following days margins call (to restore the default fund).

Assessments are capped at 1X (100%) per default up to maximum 3 defaults (300%). Once the maximum assessments have been utilised, LCH will move to the next recovery tool in the waterfall.

Scenario Descriptions:

SwapClear 1519 is the Lehman scenario of negative shifts (30 - 100bps shift down)

RepoClear 2030 is related to UK centric events in 2022 with shifts down (16-208bps)

EquityClear 1993 is the idiosyncratic scenario of the antithetical day 2 stock market crash of 1987 with shifts from -0.8% to +32%

ForexClear 374 is a theoretical scenario with USD depreciation against EM currencies; ForexClear 1095 is a decorrelation scenario with EM appreciation and AUD depreciation

LSEG POST TRADE

LCH

LCH Ltd Stress Testing and Assessment Disclosure

29-Dec-23

SwapClear (DF €6.9 bn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	87%	118%	151%	181%	203%	226%	255%	267%
Scenario Number	1519	1519	1519	1519	1519	1519	1519	1519
Scenario Type	Historical	Historical	Historical	Historical	Historical	Historical	Historical	Historical
Scenario Description	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman

RepoClear (DF €755 mn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	0%	0%	26%	28%	30%	31%	32%	36%
Scenario Number	1505	1505	2033	2033	2033	2033	2033	2033
Scenario Type	Theoretical	Theoretical	Historical	Historical	Historical	Historical	Historical	Historical
Scenario Description	Rates down	Rates down	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening

EquityClear (DF €173 mn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	28%	28%	28%	28%	28%	28%	28%	28%
Remaining Non Defaulter Assessments	0%	0%	0%	0%	0%	0%	0%	0%
Scenario Number	794	794	794	794	794	794	794	794
Scenario Type	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR
Scenario Description	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash

ForexClear (DF €1.5 bn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	78%	86%	107%	108%	117%	118%	145%	161%
Scenario Number	1021	1021	1021	1021	1021	1021	1021	1021
Scenario Type	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical
Scenario Description	Latam Depreciation	Latam Depreciation	Latam Depreciation	Latam Depreciation	Latam Depreciation	Latam Depreciation	Latam Depreciation	Latam Depreciation

Number of defaults:

N represents the number of member groups in default. A member group may contain more than 1 member, and all client accounts within the members. Defaults are assumed to be instantaneous and under the same stress conditions (i.e. the same scenario).

For example the worst 6 defaults is assumed to occur under the same scenario, however this could be a different scenario to the worst 7 defaults.

Stress losses over total margin (STLOTM) is used in this simulation. The aggregation of stress losses over margin follow the member and customer account segregation rules.

Skin in the Game Loss:

Represents the percentage of 'skin in the game' capital loss for each default fund waterfall. LCH skin in the game capital is ahead of non defaulter contributions.

Remaining Non Defaulter Assessments:

Represents the estimated maximum unfunded contribution payable to LCH for a given number of defaults. The figures are expressed as a percentage of the funded default fund contribution.

For example if a member had contributed $10m to the default fund and assessment is 196% for 5 defaults, then the member is liable to pay $19.6m in the following days margins call (to restore the default fund).

Assessments are capped at 1X (100%) per default up to maximum 3 defaults (300%). Once the maximum assessments have been utilised, LCH will move to the next recovery tool in the waterfall.

Scenario Descriptions:

SwapClear 1519 is the Lehman scenario of negative shifts (30 - 100bps shift down)

RepoClear 1505 is a negative shift in UK yields (i.e. 10yr down -82bps to -100bps); RepoClear 2033 is related to the rate increase as a consequence of the UK mini budget in 2022

EquityClear 794 is the stock market crash of 1987 where markets were down from -2.6% to -32%

ForexClear 1021 is a depreciation in Latam currencies against USD with BRL having the biggest drop (-23.1%)

LSEG POST TRADE

LCH

LCH Ltd Stress Testing and Assessment Disclosure

29-Sep-23

SwapClear (DF €6.9 bn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	93%	116%	134%	162%	189%	216%	240%	255%
Scenario Number	1519	1519	1519	1519	1519	1519	1519	1519
Scenario Type	Historical	Historical	Historical	Historical	Historical	Historical	Historical	Historical
Scenario Description	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman

RepoClear (DF €575 mn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	0%	0%	0%	0%	0%	0%	0%	26%
Scenario Number	2030	2030	2030	2030	2030	2030	2030	2030
Scenario Type	Historical	Historical	Historical	Historical	Historical	Historical	Historical	Historical
Scenario Description	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening

EquityClear (DF €173 mn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	0%	0%	0%	0%	0%	0%	0%	0%
Remaining Non Defaulter Assessments	0%	0%	0%	0%	0%	0%	0%	0%
Scenario Number	791	791	791	791	791	791	791	791
Scenario Type	Antithetical	Antithetical	Antithetical	Antithetical	Antithetical	Antithetical	Antithetical	Antithetical
Scenario Description	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash	1987 Stock Crash

ForexClear (DF €1.2 bn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	76%	88%	93%	97%	110%	141%	141%	160%
Scenario Number	1613	1613	1613	1613	1613	1613	1613	1613
Scenario Type	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical
Scenario Description	BRL Depreciation	BRL Depreciation	BRL Depreciation	BRL Depreciation	BRL Depreciation	BRL Depreciation	BRL Depreciation	BRL Depreciation

Number of defaults:

N represents the number of member groups in default. A member group may contain more than 1 member, and all client accounts within the members. Defaults are assumed to be instantaneous and under the same stress conditions (i.e. the same scenario).

For example the worst 6 defaults is assumed to occur under the same scenario, however this could be a different scenario to the worst 7 defaults.

Stress losses over total margin (STLOTM) is used in this simulation. The aggregation of stress losses over margin follow the member and customer account segregation rules.

Skin in the Game Loss:

Represents the percentage of 'skin in the game' capital loss for each default fund waterfall. LCH skin in the game capital is ahead of non defaulter contributions.

Remaining Non Defaulter Assessments:

Represents the estimated maximum unfunded contribution payable to LCH for a given number of defaults. The figures are expressed as a percentage of the funded default fund contribution.

For example if a member had contributed $10m to the default fund and assessment is 196% for 5 defaults, then the member is liable to pay $19.6m in the following days margins call (to restore the default fund).

Assessments are capped at 1X (100%) per default up to maximum 3 defaults (300%). Once the maximum assessments have been utilised, LCH will move to the next recovery tool in the waterfall.

Scenario Descriptions:

SwapClear 1519 is the Lehman scenario of negative shifts (30 - 100bps shift down)

RepoClear 2030 is related to UK centric events in 2022 with shifts down (16-208bps)

EquityClear 791 is an antithetic scenario in which equity market are up (32%)

ForexClear 1613 is a depreciation in BRL against USD (+31.75%) and an increase in implied volatility

LSEG POST TRADE

LCH

LCH Ltd Stress Testing and Assessment Disclosure

30-Jun-23

SwapClear (DF €6.9 bn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	94%	122%	156%	180%	207%	236%	259%	276%
Scenario Number	1519	1519	1519	1519	1519	1519	1519	1519
Scenario Type	Historical	Historical	Historical	Historical	Historical	Historical	Historical	Historical
Scenario Description	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman

RepoClear (DF €579 mn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	0%	0%	0%	0%	0%	0%	0%	0%
Scenario Number	2030	2030	2030	2030	2030	2030	2030	2030
Scenario Type	Historical	Historical	Historical	Historical	Historical	Historical	Historical	Historical
Scenario Description	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening

EquityClear (DF €175 mn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	0%	0%	0%	0%	0%	0%	0%	0%
Scenario Number	1989	1989	1989	1989	1989	1989	1989	1989
Scenario Type	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR
Scenario Description	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation

ForexClear (DF €1.6 bn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	43%	47%	47%	58%	67%	72%	85%	85%
Scenario Number	1646	1646	1646	1646	1646	1646	1646	1646
Scenario Type	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical
Scenario Description	KRW Appreciation	KRW Appreciation	KRW Appreciation	KRW Appreciation	KRW Appreciation	KRW Appreciation	KRW Appreciation	KRW Appreciation

Number of defaults:

N represents the number of member groups in default. A member group may contain more than 1 member, and all client accounts within the members. Defaults are assumed to be instantaneous and under the same stress conditions (i.e. the same scenario).

For example the worst 6 defaults is assumed to occur under the same scenario, however this could be a different scenario to the worst 7 defaults.

Stress losses over total margin (STLOTM) is used in this simulation. The aggregation of stress losses over margin follow the member and customer account segregation rules.

Skin in the Game Loss:

Represents the percentage of 'skin in the game' capital loss for each default fund waterfall. LCH skin in the game capital is ahead of non defaulter contributions.

Remaining Non Defaulter Assessments:

Represents the estimated maximum unfunded contribution payable to LCH for a given number of defaults. The figures are expressed as a percentage of the funded default fund contribution.

For example if a member had contributed $10m to the default fund and assessment is 196% for 5 defaults, then the member is liable to pay $19.6m in the following days margins call (to restore the default fund).

Assessments are capped at 1X (100%) per default up to maximum 3 defaults (300%). Once the maximum assessments have been utilised, LCH will move to the next recovery tool in the waterfall.

Scenario Descriptions:

SwapClear 1519 is the Lehman scenario of negative shifts (30 - 100bps shift down)

RepoClear 2030 is related to UK centric events in 2022 with shifts down (16-208bps)

EquityClear 1989 is an antithetic equities up scenario derived from 2008 Global Financial crisis with Idiosyncratic decorrelation (26%)

ForexClear 1646 is a KRW appreciation scenario against USD (-18%) with volatility shift.

LSEG POST TRADE

LCH

LCH Ltd Stress Testing and Assessment Disclosure

31-Mar-23

SwapClear (DF €5.7 bn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	80%	103%	133%	154%	182%	208%	226%	239%
Scenario Number	1519	1519	1519	1519	1519	1519	1519	1519
Scenario Type	Historical	Historical	Historical	Historical	Historical	Historical	Historical	Historical
Scenario Description	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman	Lehman

RepoClear (DF €566 mn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	0%	0%	0%	0%	0%	0%	0%	0%
Scenario Number	23	23	23	23	23	23	23	23
Scenario Type	Historical	Historical	Historical	Historical	Historical	Historical	Historical	Historical
Scenario Description	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening	UK yield steepening

EquityClear (DF €170 mn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	95%	95%	95%	95%	95%	95%	95%	95%
Remaining Non Defaulter Assessments	0%	0%	0%	0%	0%	0%	0%	0%
Scenario Number	1989	1989	1989	1989	1989	1989	1989	1989
Scenario Type	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR	DE-CORR
Scenario Description	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation	2008 Global Financial Crisis with Idiosyncratic decorrelation

ForexClear (DF €1.5 bn)	3 Defaults	4 Defaults	5 Defaults	6 Defaults	7 Defaults	8 Defaults	9 Defaults	10 Defaults
Skin in the Game Loss	100%	100%	100%	100%	100%	100%	100%	100%
Remaining Non Defaulter Assessments	27%	34%	41%	46%	49%	58%	59%	77%
Scenario Number	255	255	255	255	255	255	255	255
Scenario Type	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical	Theoretical
Scenario Description	EM All down	EM All down	EM All down	EM All down	EM All down	EM All down	EM All down	EM All down

Number of defaults:

N represents the number of member groups in default. A member group may contain more than 1 member, and all client accounts within the members. Defaults are assumed to be instantaneous and under the same stress conditions (i.e. the same scenario).

For example the worst 6 defaults is assumed to occur under the same scenario, however this could be a different scenario to the worst 7 defaults.

Stress losses over total margin (STLOTM) is used in this simulation. The aggregation of stress losses over margin follow the member and customer account segregation rules.

Skin in the Game Loss:

Represents the percentage of 'skin in the game' capital loss for each default fund waterfall. LCH skin in the game capital is ahead of non defaulter contributions.

Remaining Non Defaulter Assessments:

Represents the estimated maximum unfunded contribution payable to LCH for a given number of defaults. The figures are expressed as a percentage of the funded default fund contribution.

For example if a member had contributed $10m to the default fund and assessment is 196% for 5 defaults, then the member is liable to pay $19.6m in the following days margins call (to restore the default fund).

Assessments are capped at 1X (100%) per default up to maximum 3 defaults (300%). Once the maximum assessments have been utilised, LCH will move to the next recovery tool in the waterfall.

Scenario Descriptions:

SwapClear 1519 is the Lehman scenario of negative shifts (30 - 100bps shift down)

RepoClear 23 is to UK exit from the ERM in 1992 with UK yield steeping

EquityClear 1989 is an antithetic equities up scenario derived from 2008 Global Financial crisis with Idiosyncratic decorrelation (26%)

ForexClear 255 is a depreciation of emerging markets versus USD (10-50%)