

CPMI IOSCO Quantitative Disclosure Template - SIX x-clear Ltd (Q4/2016)

Based on CPMI-IOSCO Public Quantitative Disclosure Standard for Central Counterparties (February 2015)

4 Credit risk (Principle 4)

4.1 Total value of default resources (excluding initial and retained variation margin), split by clearing service if default funds are segregated by clearing service

As at Quarter End

	Cash Markets (Bonds / Equities)	Derivatives (Derivates / SLB)
Prefunded - Own Capital Before	0	0
Prefunded - Own Capital Alongside	5'267'781	499'607
Prefunded - Own Capital After	65'775'466	6'238'272
Prefunded - Aggregate Participant Contributions - Required	300'500'000	28'500'000
Prefunded - Aggregate Participant Contributions - Post-Haircut Posted	427'460'485	35'905'864
Prefunded - Other	0	0
Committed - Own/parent funds that are committed to address a participant default (or round of participant defaults)	45'668'693	4'331'307
Committed - Aggregate participant commitments to address an initial participant default (or initial round of participant defaults)	225'375'000	21'375'000
Committed - Aggregate participant commitments to replenish the default fund to deal with a subsequent participant default (or round of participant defaults) after the initial participant default (or round of participant defaults) has been addressed	300'500'000	28'500'000
Committed - Other	365'349'544	34'650'456

4.2 Kccp

Quarterly

	Cash Markets	Derivatives
<i>Kccp - Kccp need only be reported by those CCPs which are, or seek to be a "qualifying CCP" under relevant law</i>	0	0

4.3 Value of pre-funded default resources (excluding initial and retained variation margin) held for each clearing service, in total and split by

As at Quarter End

		Cash Markets	Derivatives
Cash deposited at a central bank of issue of the currency concerned	Market Value Pre-Haircut	n.a.	n.a.
Cash deposited at a central bank of issue of the currency concerned	Market Value Post-Haircut	n.a.	n.a.
Cash deposited at other central banks	Market Value Pre-Haircut	n.a.	n.a.
Cash deposited at other central banks	Market Value Post-Haircut	n.a.	n.a.
Secured cash deposited at commercial banks (including reverse repo)	Market Value Pre-Haircut	n.a.	n.a.
Secured cash deposited at commercial banks (including reverse repo)	Market Value Post-Haircut	n.a.	n.a.
Unsecured cash deposited at commercial banks	Market Value Pre-Haircut	304'349'853	17'092'111
Unsecured cash deposited at commercial banks	Market Value Post-Haircut	289'393'018	16'541'748
Non-Cash Bonds	Market Value Pre-Haircut	142'279'253	22'477'330
Non-Cash Bonds	Market Value Post-Haircut	123'880'217	20'071'601
Non-Cash Equities	Market Value Pre-Haircut	n.a.	n.a.
Non-Cash Equities	Market Value Post-Haircut	n.a.	n.a.

4.4 Disclosures

		Cash Markets	Derivatives
State whether the CCP is subject to a minimum "Cover 1" or "Cover 2" requirement in relation to total pre-funded default resources.		Cover 2	Cover 2
For each clearing service, state the number of business days within which the CCP assumes it will close out the default when calculating credit exposures that would potentially need to be covered by the default fund.		Equities: 2 business days Bonds: 7 business days	Options: 5 business days Futures, Forwards, Equities and SLB: 2 business days
Loss (in excess of initial margin) that would be caused by the default of any single participant and its affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions?	Cover 1	Peak Day in 12 Months	11'7'803'597
	Cover 1	Average in 12 Months	2'6'279'158
Report the number of business days, if any, on which the above amount exceeded actual pre-funded default resources (in excess of initial margin) and by how much.	Cover 1	# of Days	-
	Cover 1	Amount of Excess	-
For each clearing service, what is the estimated largest aggregate stress loss (in excess of initial margin) that would be caused by the default of any two participants and their affiliates (including transactions cleared for indirect participants) in extreme but plausible market conditions?	Cover 2	Peak Day in 12 Months	203'872'970
	Cover 2	Average in 12 Months	33'950'548
Report the number of business days, if any, on which the above amount exceeded actual pre-funded default resources (in excess of initial margin) and by how much.	Cover 2	# of Days	-
	Cover 2	Amount of Excess	-

5 Collateral (Principle 5)

5.1 Assets eligible as initial margin, and the respective haircuts applied

Update as changes are made

See Lending Norms of SIX x-clear Ltd:

<http://www.six-securities-services.com/dam/dss/downloads/clearing/download-center/operational/clear-x-clear-lendingnorms-151101-en.pdf>

5.2 Assets Eligible for pre-funded participant contributions to the default resources, and the respective haircuts applied (if different from 5.1)

Update as changes are made

See Lending Norms of SIX x-clear Ltd:

<http://www.six-securities-services.com/dam/dss/downloads/clearing/download-center/operational/clear-x-clear-lendingnorms-151101-en.pdf>

5.3 Results of testing of haircuts

Quarterly

	Haircut validation
confidence interval targeted through the calculation of haircuts	99%
assumed holding/liquidation period for the assets accepted,	Bonds: 7 days
look-back period used for testing the haircuts	2 years
Average number of business days during the look-back period on which the fall in value during the assumed holding/liquidation period exceeded the haircut on an asset.	0

6 Margin (Principle 6)

6.1 For each clearing service, total initial margin required, split by house and client (or combined total if not segregated)

Quarterly

		Cash Markets	Derivatives
House		0	0
Client	Gross Position	0	0
Client	Net Position	0	0
Total	If not Segregated	177'935'040	143'123'779

6.2 For each clearing service, total initial margin held, split by house and client

Quarterly

			Cash Markets	Derivatives
Total (if not segregated)	Cash deposited at a central bank of issue of the currency conc	Market Value Pre-Haircut	0	0
Total (if not segregated)	Cash deposited at a central bank of issue of the currency conc	Market Value Post-Haircut	0	0
Total (if not segregated)	Cash deposited at other central banks	Market Value Pre-Haircut	0	0
Total (if not segregated)	Cash deposited at other central banks	Market Value Post-Haircut	0	0
Total (if not segregated)	Cash deposited at commercial banks	Market Value Pre-Haircut	633'263'229	0
Total (if not segregated)	Cash deposited at commercial banks	Market Value Post-Haircut	601'901'146	0
Total (if not segregated)	Bonds	Market Value Pre-Haircut	612'361'622	0
Total (if not segregated)	Bonds	Market Value Post-Haircut	532'542'145	0
Total (if not segregated)	Equities	Market Value Pre-Haircut	0	0
Total (if not segregated)	Equities	Market Value Post-Haircut	0	0
Total (if not segregated)	Non-Cash - Other	Market Value Pre-Haircut	0	0
Total (if not segregated)	Non-Cash - Other	Market Value Post-Haircut	0	0
House	Cash deposited at a central bank of issue of the currency conc	Market Value Pre-Haircut	0	0
House	Cash deposited at a central bank of issue of the currency conc	Market Value Post-Haircut	0	0
House	Cash deposited at other central banks	Market Value Pre-Haircut	0	0
House	Cash deposited at other central banks	Market Value Post-Haircut	0	0
House	Cash deposited at commercial banks	Market Value Pre-Haircut	0	100'302'392
House	Cash deposited at commercial banks	Market Value Post-Haircut	0	99'761'755
House	Bonds	Market Value Pre-Haircut	0	23'371'841
House	Bonds	Market Value Post-Haircut	0	22'227'754
House	Non-Cash - Other	Market Value Pre-Haircut	0	30'592'000
House	Non-Cash - Other	Market Value Post-Haircut	0	25'523'419
Client	Cash deposited at a central bank of issue of the currency conc	Market Value Pre-Haircut	0	0
Client	Cash deposited at a central bank of issue of the currency conc	Market Value Post-Haircut	0	0
Client	Cash deposited at other central banks	Market Value Pre-Haircut	0	0
Client	Cash deposited at other central banks	Market Value Post-Haircut	0	0
Client	Cash deposited at commercial banks	Market Value Pre-Haircut	0	21'921'811
Client	Cash deposited at commercial banks	Market Value Post-Haircut	0	21'921'811
Client	Bonds	Market Value Pre-Haircut	0	7'895'295
Client	Bonds	Market Value Post-Haircut	0	6'711'001
Client	Non-Cash - Other	Market Value Pre-Haircut	0	48'303'842
Client	Non-Cash - Other	Market Value Post-Haircut	0	36'878'578
Total (if not segregated)	Cash deposited at a central bank of issue of the currency conc	Market Value Pre-Haircut	0	0
Total (if not segregated)	Cash deposited at a central bank of issue of the currency conc	Market Value Post-Haircut	0	0
Total (if not segregated)	Cash deposited at other central banks	Market Value Pre-Haircut	0	0
Total (if not segregated)	Cash deposited at other central banks	Market Value Post-Haircut	0	0
Total (if not segregated)	Cash deposited at commercial banks	Market Value Pre-Haircut	0	122'224'203
Total (if not segregated)	Cash deposited at commercial banks	Market Value Post-Haircut	0	121'683'566
Total (if not segregated)	Bonds	Market Value Pre-Haircut	0	31'267'136
Total (if not segregated)	Bonds	Market Value Post-Haircut	0	28'938'755
Total (if not segregated)	Non-Cash - Other	Market Value Pre-Haircut	0	78'895'842
Total (if not segregated)	Non-Cash - Other	Market Value Post-Haircut	0	62'401'997

6.3 Initial Margin rates on individual contracts, where the CCP sets such rates

Update as changes are made

6.4 Type of initial margin model used (e.g. portfolio simulation or risk aggregation) for each clearing service and the key model design parameters for each initial margin model applied to that clearing service

Quarterly

		Cash Markets x-clear Zürich	Cash Markets x-clear Norwegian Branch	Derivatives x-clear Norwegian Branch
SECOM Initial Margin Model	Type of initial margin model:	Risk aggregation	n.a	n.a
	Confidence level targeted:	0.99	n.a	n.a
	Sample/ data look-back period:	2 years	n.a	n.a
	Adjustments or scalars or weighting, if any, applied to historical data (e.g. to reflect changes in volatility):	none	n.a	n.a
	Close-out periods by product	Equities = 2 daysBonds = 7 days	n.a	n.a
	For risk aggregation models, the margin rate per contract and details of the offsets between different contracts:	See chapter 5.2 of http://www.six-sec.com	n.a	n.a
	Frequency of parameter reviews:	monthly	n.a	n.a
RMS Margin Validation	Type of initial margin model:	Portfolio simulation	n.a	n.a
	Confidence level targeted:	0.99	n.a	n.a
	Sample/ data look-back period:	as of 2008 (EWMA)	n.a	n.a
	Adjustments or scalars or weighting, if any, applied to historical data (e.g. to reflect changes in volatility):	EWMA with Lambda = 0.95	n.a	n.a
	Close-out periods by product	Equities = 2 daysBonds = 7 days	n.a	n.a
	For risk aggregation models, the margin rate per contract and details of the offsets between different contracts:	n.a.	n.a	n.a
	Frequency of parameter reviews:	yearly	n.a	n.a
CLARA Margin Model	Type of initial margin model:	n.a	Portfolio simulation	Portfolio simulation
	Confidence level targeted:	n.a	0.99	0.99
	Sample/ data look-back period:	n.a	2 years	2 years
	Adjustments or scalars or weighting, if any, applied to historical data (e.g. to reflect changes in volatility):	n.a	We consider 500 days unweighted returns, 60 days unweighted returns and 60 days weighted returns (lambda = 0.94) for setting of margin rates. For implied volatility estimates, EWMA with lambda of 0.9x is considered.	
	Close-out periods by product	n.a	2 - 10 days	2 - 10 days
	For risk aggregation models, the margin rate per contract and details of the offsets between different contracts:	n.a	n.a	n.a
	Frequency of parameter reviews:	n.a	Monthly for main underlying instruments, quarterly for all instruments. Additional ad-hoc reviews upon need.	

6.5 Results of back-testing of initial margin. At a minimum, this should include, for each clearing service and each initial margin model applied to that clearing service:

Quarterly

			x-clear Zürich (SECOM)	x-clear Norwegian Branch (CLARA)
Number of times over the past twelve months that margin coverage held against any account fell below the actual marked-to-market exposure of that member account – based on daily back-testing results	Peak	highest number of breaches for any account / member	6	3
Number of observations	Peak	maximum number of observations for any account / member	260	253
Achieved coverage level	Peak	worst confidence level achieved	97.69%	98.81%
Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure	Peak	Biggest breach for any account / member	-1'9'005'254	-2'21'408
Number of times over the past twelve months that margin coverage held against any account fell below the actual marked-to-market exposure of that member account – based on daily back-testing results	Average	Average number of breaches	1	0
Number of observations	Average	average number of observations for any account / member	251	228
Achieved coverage level	Average	Average confidence level achieved	99.70%	99.91%
Where breaches of initial margin coverage (as defined in 6.5(a)) have occurred, report on size of uncovered exposure	Average	Expected shortfall	-581'217	-34'443

6.6 Average Total Variation Margin Paid to the CCP by participants each business

Quarterly; Average per business day over the Quarter

6.7 Maximum total variation margin paid to the CCP on any given business day over the period

Quarterly; Maximum over Quarter

6.8 Maximum aggregate initial margin call on any given business day over the period

Quarterly; Maximum over Quarter

7 Liquidity Risk (Principle 7)

7.1 Multiple Items

Quarterly

		All clearing services
State whether the clearing service maintains sufficient liquid resources to 'Cover 1' or 'Cover 2'.		Yes
Size and composition of qualifying liquid resources for each clearing service	(a) Cash deposited at a central bank of issue of the currency concerned	0
Size and composition of qualifying liquid resources for each clearing service	(b) Cash deposited at other central banks	0
Size and composition of qualifying liquid resources for each clearing service	(c) Secured cash deposited at commercial banks (including reverse repo)	0
Size and composition of qualifying liquid resources for each clearing service	(d) Unsecured cash deposited at commercial banks	1'151'113'315
Size and composition of qualifying liquid resources for each clearing service	(e) secured committed lines of credit (ie those for which collateral/security will be provided by the CCP if drawn) including committed foreign exchange swaps and committed repos;	0
Size and composition of qualifying liquid resources for each clearing service	(f) unsecured committed lines of credit (ie which the CCP may draw without providing collateral/security);	0
Size and composition of qualifying liquid resources for each clearing service	(g) highly marketable collateral held in custody and investments that are readily available and convertible into cash with prearranged and highly reliable funding arrangements even in extreme but plausible market conditions;	695'687'366
Size and composition of qualifying liquid resources for each clearing service	(h) other	0
State whether the CCP has routine access to central bank liquidity or facilities.		No
Details regarding the schedule of payments or priority for allocating payments, if such exists, and any applicable rule, policy, procedure, and governance arrangement around such decision making.		0

7.2 Size and composition of any supplementary liquidity risk resources for each clearing service above those qualifying liquid resources above.

Quarterly

	Cash Markets	Derivatives
Size and composition of any supplementary liquidity risk resources for each clearing service above those qualifying liquid resources in 7.1	0	0

7.3 Liquidity Risk - 7.3; Multiple Items

Quarterly

12 Exchange of value settlement systems (Principle 12)

12.1 Percentage of settlements by value effected using a DVP, DVD or PVP settlement mechanism

Quarterly

	Cash Markets	Derivatives
Percentage of settlements by value effected using a DVP settlement mechanism	100%	100%
Percentage of settlements by value effected using a DVD settlement mechanism	0%	0%
Percentage of settlements by value effected using a PVP settlement mechanism	0%	0%

12.2 Percentage of settlements by volume effected using a DVP, DVD or PVP settlement mechanism

Quarterly

	Cash Markets	Derivatives
Percentage of settlements by volume effected using a DVP settlement mechanism	100%	100%
Percentage of settlements by volume effected using a DVD settlement mechanism	0%	0%
Percentage of settlements by volume effected using a PVP settlement mechanism	0%	0%

13 Default rules and procedures (Principle 13)

13.1 CCPs are encouraged, subject to legal constraints on timing and content, to disclose as soon as practicable quantitative information related to defaults

Ad-Hoc; As Time Permits

	Cash Markets	Derivatives
Amount of loss versus amount of initial margin	n.a.	n.a.
Amount of other financial resources used to cover losses	n.a.	n.a.
Proportion of client positions closed-out/ported	n.a.	n.a.
Appropriate references to other published material related to the defaults	n.a.	n.a.

14 Segregation and portability (Principle 14)

14.1 Total Client Positions held in the following as a share of notional values cleared or of the settlement value of securities transactions

Quarterly

	Cash Markets	Derivatives
Total Client Positions held in individually segregated accounts	0%	29%
Total Client Positions held in omnibus client-only accounts, other than LSOC	0%	23%
Total Client Positions held in legally segregated but operationally commingled	0%	0%
Total Client Positions held in commingled house and client accounts	100%	21%

15 General business risk (Principle 15)

15.1 Multiple items

Annual

	SIX x-clear Ltd
Value of liquid net assets funded by equity	83593803.19
Six months of current operating expenses	8960663.97

15.2 General business risk; Financial Disclosures

Annual

	SIX x-clear Ltd
Total Revenue	30958388.22
Total Expenditure	-31971522.23
Profits	-1013134.01
Total Assets	1580254000
Total Liabilities	1496660197
Explain if collateral posted by clearing participants is held on or off the CCP's	Only the effectively used collateral remains on x-clear's balance sheet.
Additional items as necessary	n/a

15.3 General business risk; Income breakdown

Annual

	SIX x-clear Ltd
Percentage of total income that comes from fees related to provision of clearing services	0.688603764
Percentage of total income that comes from the reinvestment (or rehypothecation) of assets provided by clearing participants	0.291579389

16 Custody and investment risks (Principle 16)

16.1 Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, split by whether it was received as initial margin or default fund contribution

Quarterly, at Quarter End

	SIX x-clear Ltd
Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, received as initial margin	755'487'432
Total cash (but not securities) received from participants, regardless of the form in which it is held, deposited or invested, received as default fund contribution	315'674'576

16.2 How total cash received from participants (16.1) is held/deposited/invested, including;

Quarterly

			SIX x-clear Ltd
Percentage of total participant cash held as cash deposits (including through reverse repo)	as cash deposits at central banks of issue of the currency deposited		0.0%
Percentage of total participant cash held as cash deposits (including through reverse repo)	as cash deposits at other central banks		0.0%
Percentage of total participant cash held as cash deposits (including through reverse repo)	as cash deposits at commercial banks		95.2%
Percentage of total participant cash held as cash deposits (including through reverse repo)	in money market funds		0.0%
Percentage of total participant cash held as cash deposits (including through reverse repo)	in other forms	Additional Description as needed	0.0%
Percentage of total participant cash held as cash deposits (including through reverse repo)	split by currency of these cash deposits (including reverse repo) and money market funds	CHF	49.0%
Percentage of total participant cash held as cash deposits (including through reverse repo)	split by currency of these cash deposits (including reverse repo) and money market funds	EUR	14.0%
Percentage of total participant cash held as cash deposits (including through reverse repo)	split by currency of these cash deposits (including reverse repo) and money market funds	USD	23.7%
Percentage of total participant cash held as cash deposits (including through reverse repo)	split by currency of these cash deposits (including reverse repo) and money market funds	NOK	8.5%
Percentage of total participant cash held as cash deposits (including through reverse repo)	weighted average maturity of these cash deposits (including reverse repo) and money market funds		100% sight deposits
Percentage of total participant cash invested in securities	Domestic sovereign government bonds		n.a.
Percentage of total participant cash invested in securities	Other sovereign government bonds		4.8%
Percentage of total participant cash invested in securities	Agency Bonds		n.a.
Percentage of total participant cash invested in securities	State/municipal bonds		n.a.
Percentage of total participant cash invested in securities	Other instruments	Additional Description as needed	n.a.
Percentage of total participant cash invested in securities	percentage split by currency of these securities	CCY #1	n.a.
Percentage of total participant cash invested in securities	percentage split by currency of these securities	CCY #2	n.a.
Percentage of total participant cash invested in securities	weighted average maturity of securities		n.a.
Provide an estimate of the risk on the investment portfolio (excluding central bank and commercial bank deposits) (99% one-day VaR, or equivalent)			0
State if the CCP investment policy sets a limit on the proportion of the investment portfolio that may be allocated to a single counterparty, and the size of that limit.			x-clear Zürich: All client cash is deposited at SIX. There is no client cash deposited at external entities. x-clear Norwegian Branch: 25% per counterparty with the exception of the Kingdom of Norway.
State the number of times over the previous quarter in which this limit has been exceeded.			0

17 Operational risk (Principle 17)

17.1 Operational availability target for the core system(s) involved in clearing (whether or not outsourced) over specified period for the system (e.g. 99.99% over a twelve-month period)

Quarterly

	Cash Markets	Derivatives
Operational availability target for the core system(s) involved in clearing (whether or not outsourced) over specified period for the system (e.g. 99.99% over a twelve-month period)	100.00%	100.00%

17.2 Actual availability of the core system(s) over the previous twelve month period

Quarterly

	Cash Markets	Derivatives
Actual availability of the core system(s) over the previous twelve month period	99.80%	99.80%

17.3 Total number and duration of failures

Quarterly

	Cash Markets	Derivatives
Total number and duration of failures affecting the core system(s) involved in clearing over the previous twelve month period	0	0

17.4 Recovery time objective(s)

Quarterly

	Cash Markets	Derivatives
Recovery time objective(s) (e.g. within two hours)	within 2 hours	Within two hours

18 Access and participation requirements (Principle 18)
18.1 Number of clearing members, by clearing service

Quarterly

		Cash Markets	Derivatives
Category of membership	GCM	11	5
Category of membership	ICM	53	9
Type of participant	Bank	64	7
Type of participant	Other	0	7
Participants	Domestic	47	0
Participants	Foreign	17	14

18.2 Open Position Concentration

Quarterly

			Cash Markets	Derivatives
For each clearing service with ten or more members, but fewer than 25 members	Percentage of open positions held by the largest five clearing members, including both house and client, in aggregate	Average	n.a.	81%
For each clearing service with ten or more members, but fewer than 25 members	Percentage of open positions held by the largest five clearing members, including both house and client, in aggregate	Peak during Quarter	n.a.	84%
For each clearing service with 25 or more members	Percentage of open positions held by the largest five clearing members, including both house and client, in aggregate	Average	77%	n.a.
For each clearing service with 25 or more members	Percentage of open positions held by the largest five clearing members, including both house and client, in aggregate	Peak during Quarter	81%	n.a.
For each clearing service with 25 or more members	Percentage of open positions held by the largest ten clearing members, including both house and client, in aggregate	Average	89%	n.a.
For each clearing service with 25 or more members	Percentage of open positions held by the largest ten clearing members, including both house and client, in aggregate	Peak during Quarter	92%	n.a.

18.3 Initial Margin Concentration

Quarterly

			Cash Markets	Derivatives
For each clearing service with ten or more members, but fewer than 25 members	Percentage of initial margin posted by the largest five clearing members, including both house and client, in aggregate	Average	n.a.	67%
For each clearing service with ten or more members, but fewer than 25 members	Percentage of initial margin posted by the largest five clearing members, including both house and client, in aggregate	Peak during Quarter	n.a.	73%
For each clearing service with 25 or more members	Percentage of initial margin posted by the largest five clearing members, including both house and client, in aggregate	Average	75%	n.a.
For each clearing service with 25 or more members	Percentage of initial margin posted by the largest five clearing members, including both house and client, in aggregate	Peak during Quarter	89%	n.a.
For each clearing service with 25 or more members	Percentage of initial margin posted by the largest ten clearing members, including both house and client, in aggregate	Average	86%	n.a.
For each clearing service with 25 or more members	Percentage of initial margin posted by the largest ten clearing members, including both house and client, in aggregate	Peak during Quarter	94%	n.a.

18.4 Segregated Default Fund Concentration

Quarterly

		Cash Market Segment	Derivatives Segment
For each segregated default fund with ten or more members, but fewer than 25 members:	Percentage of participant contributions to the default fund contributed by largest five clearing members in aggregate	n.a.	86.2%
For each segregated default fund with 25 or more members	Percentage of participant contributions to the default fund contributed by largest five clearing members in aggregate	67.6%	n.a.
For each segregated default fund with 25 or more members	Percentage of participant contributions to the default fund contributed by largest ten clearing members in aggregate	77.9%	n.a.

20 FMI-links (Principle 20)

20.1 FMI Links, Value of Trades

Quarterly

	x-clear Zürich	x-clear Norwegian Branch
Value of open trades cleared through LCH.Clearnet – as a share of total open trade values/total notional values cleared as at quarter end	38.1%	33.9%
Value of open trades cleared through EuroCCP – as a share of total open trade values/total notional values cleared as at quarter end	24.4%	n.a.

20.2 FMI Links, Initial Margin or equivalent financial resources provided

Quarterly

	x-clear Zürich	x-clear Norwegian Branch
Margins or equivalent financial resources provided to LCH.Clearnet by the CCP to cover the potential future exposure of LCH.Clearnet on contracts cleared across link	147'760'188	13'959'283
Margins or equivalent financial resources provided to EuroCCP by the CCP to cover the potential future exposure of EuroCCP on contracts cleared across link	95'594'209	n.a.

20.3 FMI Links, Initial Margin or equivalent financial resources collected

Quarterly

	x-clear Zürich	x-clear Norwegian Branch
Margins or equivalent financial resources collected from LCH.Clearnet to cover the potential future exposure to LCH.Clearnet on contracts cleared across link (at market value and post-haircut)	81'148'257	2'264'715
Margins or equivalent financial resources collected from EuroCCP to cover the potential future exposure to EuroCCP on contracts cleared across link (at market value and post-haircut)	93'083'316	n.a.

20.4 FMI Links, Results of Back-testing coverage

Quarterly

20.5 FMI Links, Additional pre-funded financial resources provided to

Quarterly

20.6 FMI Links, Additional pre-funded financial resources collected from

Quarterly

20.7 FMI Links, Cross Margining

Quarterly

	Cash Markets	Derivatives
Value of trades subject to cross margining, by clearing service, as a percentage of total trade values/total notional values cleared	0.0%	0.0%
Reduction in total initial margin held by the CCP as a result of crossmargining, as a percentage of total initial margin that would otherwise have been held.	0.0%	0.0%

23 Disclosure of rules, key procedures and market data (Principle 23)

23.1 Average Daily Volumes

Quarterly, Average Per Business Day

		Cash Markets	Derivatives
Average Daily Volumes of cleared trades	Equities	1'245'789	n.a.
Average Daily Amounts (CHF) of cleared trades	Equities	10'014'043'115	n.a.
Average Daily Volumes of cleared trades	Bonds	1'217	n.a.
Average Daily Amounts (CHF) of cleared trades	Bonds	188'330'347	n.a.
Average Daily Volumes of cleared trades	Derivatives	n.a.	544
Average Daily Volumes of cleared trades	SLB	n.a.	12

23.2 Disclosure of rules, key procedures, and market data; Non-Yet-Settled

Quarterly, At Quarter End

		Cash Markets	Derivatives
Gross notional outstanding/total settlement value of novated but not-yetsettled securities transactions	Equity	5'006'934'467	n.a.
Gross notional outstanding/total settlement value of novated but not-yetsettled securities transactions	Bonds	397'139'459	n.a.
Gross notional outstanding/total settlement value of novated but not-yetsettled securities transactions	Derivatives	n.a.	2'383'514'782
Gross notional outstanding/total settlement value of novated but not-yetsettled securities transactions	SLB	n.a.	2'0263'486

23.3 Disclosure of rules, key procedures, and market data; Execution Facility
Quarterly, At Quarter End

		Cash Markets	Derivatives
Average daily volumes submitted by Execution facility or matching/confirmation venue	Aquis MTF	7'526	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	Aquis MTF	61'302'897	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	BATS MTF	130'261	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	BATS MTF	1'809'474'273	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	Chi-X MTF	326'645	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	Chi-X MTF	1'604'232'805	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	Sigma X MTF	3'358	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	Sigma X MTF	22'696'933	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	Traiana MTF	3'254	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	Traiana MTF	328'649'668	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	Turquoise MTF	333'897	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	Turquoise MTF	1'626'839'664	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	Equiduct MTF	8'304	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	Equiduct MTF	56'045'817	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	London Stock Exchange	162'882	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	London Stock Exchange	1'213'498'191	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	SIX Swiss Exchange - Small & MidCap Segment	44'613	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	SIX Swiss Exchange - Small & MidCap Segment	689'357'545	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	UBS MTF	92'841	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	UBS MTF	716'450'850	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	SIX Swiss Exchange - Blue Chip Segment	59'796	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	SIX Swiss Exchange - Blue Chip Segment	1'717'125'198	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	Oslo Børs main	75'276	536
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	Oslo Børs main	367'972'869	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	Oslo Axess (no derivatives)	884	0
Average daily contract values in CHF submitted by Execution facility or matching/confirmation venue	Oslo Axess (no derivatives)	1'765'812	0
Average daily volumes submitted by Execution facility or matching/confirmation venue	Oslo Connect (OTC derivatives)	0	12