

## European Commodity Clearing AG

### CPMI-IOSCO Disclosure for Central Counterparties I/2019



	Index	disclosure item	date, type, value
4.	4000	Credit Risk (Principle 4)	
		Total value of default resources (excluding initial and retained variation	As at quarter end
		margin), split by clearing service if default funds are segregated by clearing	Mn. EURO
4.1		service	(Bonds at collateral value)
	4101	a) pre-funded	706.0
	4101	own capital that forms part of the default waterfall (used before	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	4103		15.0
	4102		691.0
		iii. other	0.0
	4104	b) committed	n/a
	4105		
		default	15.0
	4106	ii. aggregate participant commitments to address an initial participant	
		default	459.2
	4107	iii. aggregate participant commitments to replenish the default fund to	
		deal with a subsequent participant default. [1]	459.2
		iv. other	n/a
4.2	4201	КССР	0.1
		Value of pre-funded default resources (excluding initial and retained	As at quarter end
4.3		variation margin)	Mn. EURO
		a) total Cash	599.9
	4302		[2]
	4303		[2]
	4304		[2]
	4305		[2]
	4200	b) Bonds at market value w/o haircut	1 7
	4306		1.7
	4307		30.7
	4308 4309		17.3
	4309		0.0
	4310		19.5
	4311		25.9
	4512	c) Bonds at collateral value (post haircut)	23.5
	4313		1.5
	4314		4.6
	4315		28.4
	4316		16.4
	4317		0.0
	4318		17.1
	4319		22.2
		d) other	[3]
4.4		a) State whether the CCP is subject to a minimum "Cover 1" or "Cover 2"	As at quarter end
	4401		Cover 2
	4402	<ul> <li>b) assumed close out period (days)</li> <li>c) the estimated largest aggregate stress loss (in excess of initial margin)</li> </ul>	2
		that would be caused by the default of any single participant and its	
		affiliates (including transactions cleared for indirect participants) in	previous 12 months
		extreme but plausible market conditions?	Mn. EURO
	4403		844.9
			351.2
	4404		351.2
	4405 4406		n/a

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	4408		n/a
	4408 4409		n/a n/a
	4409		n/a
	4410		n/a
	4412		n/a
	4413		n/a
	4414		n/a
	4415	amount of exess of stress loss over DFW, day 10	n/a
		d) what was the actual largest aggregate credit exposure (in excess of initial	
		margin) to any single participants and their affiliates	[4]
	4416	i. maximum of daily values	n/a
	4417		n/a
		e) the estimated largest aggregate stress loss (in excess of initial margin)	
		that would be caused by the default of any two participant and its	
		affiliates (including transactions cleared for indirect participants) in	previous 12 months
		extreme but plausible market conditions?	Mn. EURO
	4418	, ,	1,063.6
	4419		438.8
	4420 4421		n/a
	4421		n/a
	4423		n/a
	4424		n/a
	4425		n/a
	4426	amount of exess of stress loss over DFW, day 6	n/a
	4427	amount of exess of stress loss over DFW, day 7	n/a
	4428	, ,	n/a
	4429		n/a
	4430	, ,	n/a
		f) what was the actual largest aggregate credit exposure (in excess of initial	
		margin) to any two participants and their affiliates	[4]
	4431 4432		n/a
5.		Collateral (Principle 5)	n/a
5.1	-	Assets eligible as initial margin, and the respective haircuts applied	T
•		http://www.ecc.de/ecc-en/risk-management/collateral-management	l t/overview
5.2	5201	Assets eligible for pre-funded participant contributions to the default	ĺ
		resources, and the respective haircuts applied	
		http://www.ecc.de/ecc-en/risk-management/collateral-management	/overview
5.3		Collateral Backtesting	previous 12 months
	5301	5	99
	5302	<b>C</b> , <b>1</b>	3 days
	5303 5304		255 days
	5504	haircuts	0
6.	6000	Margin (Principle 6)	
Initial I			
merarr			As at quarter end
6.1		Initial Margin Requirement by type of segregation	Mn. EURO
	6101		100
	6102	b) non-segregated	0.0
	6103	, , , , , , , , , , , , , , , , , , , ,	2,983.9
	6104	Initial Margin Requirement for indirect participants: gross or net?	net
<u> </u>			As at quarter end
6.2		Initial margin received by type of segregation	Mn. EURO
		a) House Cash	[6]
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6201	total Cash	67.5
6202	deposited at a central bank of issue of the currency	[2]
6203	Cash deposited at other central banks	[2]
6204	Secured cash at commercial banks (including reverse repo)	[2]
6205	Unsecured cash deposited at commercial banks	[2]
	Bonds (market value - w/o haircuts)	
6206	Sovereign Government Bonds - domestic	0.0
6207	Sovereign Government Bonds - foreign	0.0
6208	Agency	0.0
6209	Supranational Agency	0.0
6210	State / Provincial / Municipal - domestic	0.0
6211	State / Provincial / Municipal - foreign	0.0
6212	other Bonds Bonds (collectoral value - nest bairsute)	0.0
(212	Bonds (collateral value - post haircuts)	0.0
6213 6214	Sovereign Government Bonds - domestic Sovereign Government Bonds - foreign	0.0
6214		
6215	Agency	0.0
6216	Supranational Agency	0.0
6217	State / Provincial / Municipal - domestic	0.0 0.0
6218 6219	State / Provincial / Municipal - foreign other Bonds	0.0
	b) non-segregated	0.0
	Cash	
6220	total Cash	2,273.3
6220	deposited at a central bank of issue of the currency	[2]
6222	Cash deposited at other central banks	[2]
6223	Secured cash at commercial banks (including reverse repo)	[2]
6224	Unsecured cash deposited at commercial banks	[2]
	Bonds (market value - w/o haircuts)	
6225	Sovereign Government Bonds - domestic	7.0
6226	Sovereign Government Bonds - foreign	0.7
6227	Agency	7.4
6228	Supranational Agency	0.0
6229	State / Provincial / Municipal - domestic	75.9
6230	State / Provincial / Municipal -foreign	0.0
6231	other Bonds	1.0
	Bonds (collateral value - post haircuts)	0.0
6232	Sovereign Government Bonds - domestic	6.7
6233	Sovereign Government Bonds - foreign	0.7
6234	Agency	6.5
6235	Supranational Agency	0.0
6236	State / Provincial / Municipal - domestic	70.3
6237	State / Provincial / Municipal - foreign	0.0
6238	other Bonds	0.8
	c) segregated clients [5]	
	Cash	[6]
6239	total Cash	861.8
6240	deposited at a central bank of issue of the currency	[2]
6241	Cash deposited at other central banks	[2]
6242	Secured cash at commercial banks (including reverse repo)	[2]
6243	Unsecured cash deposited at commercial banks	[2]
6244	Bonds (market value - w/o haircuts)	0.0
6244	Sovereign Government Bonds - domestic	0.0
6245 6246	Sovereign Government Bonds - foreign Agency	0.0
6246 6247	Supranational Agency	0.0
6247	State / Provincial / Municipal - domestic	0.0
6248	State / Provincial / Municipal - domestic	0.0
6250	other Bonds	0.0
1 200		

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Bonds (collateral value - post haircuts)	0.0
6251 Sovereign Government Bonds - domestic	0.0
6252 Sovereign Government Bonds - foreign	0.0
6253 Agency	0.0
6254 Supranational Agency	0.0
6255 State / Provincial / Municipal - domestic	0.0
6256 State / Provincial / Municipal - foreign 6257 other Bonds	0.0 0.0
	0.0
6.3 6301 Initial margin rates on individual contracts, where the CCP sets such rates	[7]
6.4 Type of initial margin model used and key model design parameters	
6401 Single Tail Confidence Level	99%
6402 Look Back Period	1 Year (250 Trading Days) Exponential Weighting
6403 Weighting on historical data	with Lambda = 0.99
6404 Close Out Periods	2 days
6405 Rates and Credits	
http://www.ecc.de/ecc-en/risk-manag	gement/reports_and_files
6406 Update Frequency	Daily
6.5 Results of back-testing of initial margin pr	rev. 12 months, daily basis
6.5 Results of back-testing of initial margin pr Reported are the aggregate results counting outliers of IM calculation at	rev. 12 months, daily basis
the level of each Non-Clearing Member at ECC.	
6501 a) Number of days where IM fell below mark-to-market	15
6502 b) Number of observations where IM fell below mark-to-market	105
6503 c) Achieved coverage level	99.81%
6504 d) Specify if measured intraday/continuously or only once a day.	continuously
6505 e) If once a day, specify at what time of day.	n/a
	/n. EURO
6506 i. breaches of initial margin: peak uncovered exposure	216.4
6507 ii. breaches of initial margin: average uncovered exposure [8]	5.8
Margin Calls	verage over quarter
	In. EURO
6601 by participants each business day.	91.2
M	/laximum over quarter
	/In. EURO
6701 over the period.	295.9
	/laximum over quarter /In. EURO
6.8 Maximum aggregate initial margin call on any given business day over the M 6801 period.	257.2
7. Liquidity Risk (Principle 7)	257.2
7.1 7101 'Cover 1' or 'Cover 2'.	Cover2
Size and composition of qualifying liquid resources for each clearing service,	
for each relevant currency M	/In. EURO
	s at quarter end
7102 i. EUR	3,897.8
7109 II. GBP	0.0
7116 iii. USD b) Cash deposited at other central banks As	0.0 s at quarter end
7103 i. EUR	0.0
7110 ii. GBP	0.0
7117 iii. USD	0.0
	s at quarter end
7104 i. EUR	0.0
7111 ii. GBP	0.0

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7118 iii. USD
d) Unsecured cash deposited at commercial banks
7105 i. EUR
7112 ii. GBP
7119 iii. USD
e) secured committed lines of credit including committed foreign exchange
swaps and committed repos
7106 i. EUR
7113 ii. GBP
7120 iii. USD
f) unsecured committed lines of credit which the CCP may draw without
providing collateral/security
7107 i. EUR
7114 ii. GBP
7121 iii. USD 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
7108 i. EUR

		providing collateral/security	
	7107	i. EUR	0.0
	7114	ii. GBP	0.0
	7121	iii. USD	0.0
		$_{\rm g}$ highly marketable collateral held in custody and investments that are	As at quarter end
		readily available and convertible into cash with prearranged and highly	l .
		reliable funding arrangements even in extreme but plausible market	
		conditions	[9]
	7108	i. EUR	100.0
	7115		0.0
	7122		0.0
	,122	h) other	
		i. EUR	0.0
		ii. GBP	0.0
		ii. USD	0.0
		i) State whether the CCP has routine access to central bank liquidity or	As at quarter end
		facilities.	
	7123		yes - intraday facility
	7123		no
	7124		no
7.2		Supplementary Liquidity over those from 7.1	n/a
7.2	7201	Largest same-day payment obligation in total that would be caused by the	liya
7.5		default of any single participant and its affiliates in extreme but plausible	previous quarter
		market conditions?	Mn. EURO
	7201		
	7301		766.0
	7302	ii. number of days where estimated payment exceeded liquidity	5
	7202	iii. amount of excess on each day:	262.1
	7303	amount of exess of payment over liq., day 1	-263.1
	7304	amount of exess of payment over liq., day 2	-240.5
	7305	amount of exess of payment over liq., day 3	-240.2
	7306	amount of exess of payment over liq., day 4	-242.2
	7307	amount of exess of payment over liq., day 5	-868.7
	7308	amount of exess of payment over liq., day 6	n/a
	7309	amount of exess of payment over liq., day 7	n/a
	7310		n/a
	7311	amount of exess of payment over liq., day 9	n/a
	7312	amount of exess of payment over liq., day 10	n/a
		actual largest payment obligation to a single participant over the	
	7313		n/a
12.		Exchange of Value Settlement Systems (Principle 12)	1
12.1		Percentage of settlements by value effected using a DvP, DvD or PvP	,
	12101	settlement	n/a
12.2		Percentage of settlements by volume effected using a DvP, DvD or PvP	
	12201	settlement mechanism	n/a
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As at quarter end

As at quarter end

24.9 0.5 0.0

> 0.0 0.0 0.0

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#### CPMI-IOSCO Disclosure for Central Counterparties I/2019



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13	Default Rules and Procedures (Principle 13)	
13.1	Quantitative information related to past defaults	- /-
	<ul> <li>13101 a) amount of loss vs. amount of margin</li> <li>13102 b) amount of other financial resources used to cover losses</li> </ul>	n/a
		n/a
	13103 c) proportion of client positions closed-out/ported	n/a
14.	Segregation and Portability (Principle 14)	
14.1	Total client positions (Open Interest) as a share of notional values, by type	
	of segregation	[6]
	a) basis: OI short side	
	14101 i. HOUSE	< 5%
	14102 ii. ISA	< 5%
	14103 iii. LSOC/GOS	91%
	14104 iv. SOS	6%
	b) basis: OI long side	
	14105 i. HOUSE	< 5%
	14106 ii. ISA	< 5%
	14107 iii. LSOC/GOS	90%
	14108 iv. SOS	5%
15.	General Business Risk (Prinicple 15)	
1 - 1	(cross) value of liquid act coests funded by equity (CMUD conitel)	Mn. EURO
15.1	15101 a) value of liquid net assets funded by equity (EMIR capital)	108.9
45.0	15102 b) six months of current operating expenses	21.0
15.2	Financial disclosures	[10]
	15201 a) total revenue	106.1
	15202 b) total expenditure	41.9
	15203 c) profits	49.9
	15204 d) total assets	7,049.2
	15205 e) total liabilities	7,049.2
	15206 f)	All Cash pledged by
	Explain if collateral posted by clearing participants is held on or off the	participants is held on the
	CCP's balance sheet	balance sheet
15.3	Income breakdowns	
	15301 a) percentage of income from clearing fees	100%
	15302 b) percentage of income from reinvestment of assests provided by clearing	0%
	participants	
16.	Custody and Investment Risks (Principle 16)	As at quarter end
		Mn. EURO
16.1	16101 Total Cash received by the CCP from participants	3,802.5
10.1	16102 Total Cash received by the CCP from participants: Default Fund contributio	
	16103 Total Cash received by the CCP from participants: Initial Margins	3,201.7
16.2	Investment of Cash: Deposits	3,202.7
10.2	16201 a) deposits at central banks of issue of the currency	100%
	16202 b) deposits at other central banks	0%
	16203 c) secured deposits at commercial banks	0%
	16204 d) unsecured deposits at commercial banks	0%
	16205 e) money market funds	0%
	16206 f) other	0%
	16207 g) Cash - EUR	100%
	16208 h) Cash - GBP	0%
		0%
	,	
	16210 j) weighted average maturity of deposits and funds (days) Investment of Cash: Securities	<1
	16211 a) domestic sovereign government bonds	0%
	16212 b) foreign sovereign government bonds	0%
	16212 c) agency bonds	0%
	16214 d) state/ provincial / municipal bonds	0%
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	16215	e) other instruments	0%
	16216	f) percentage split by currency	0%
	16217	g) percentage split by currency	0%
	16218	h) percentage split by currency	0%
	16219	<ul> <li>weighted average maturity of these securities</li> </ul>	0
		Investment of Cash: Investment Risk	
	16220	VaR(99%) of total investment portfolio	n/a
	16221	Limit for Investment Counterparty	individual limits, see [11]
	16222	Number of limit breaches	0
16.3	16301	Investment of Cash: Rehypothetication of Cash ECC does not use the instrument of rehypothetication of cash for investment	none
17.		Operational Risk (Principle 17)	
17.1	17101	Operational availability targets for the core systems involved in clearing	99.00%
17.1		Achieved availability of the core systems, previous twelve months	
			99.98% 7
17.3		Total number of failures affecting the core systems, previous twelve months	
47.4		Total duration of failures affecting the core systems, previous twelve months	
17.4	17401	Recovery time objectives (in hours)	2
18.		Access and Participation Requirements (Principle 18)	
18.1		Number of clearing members by type and origin	as at quarter end
	18101	a) DCM domestic	2
	18102	b) DCM foreign	3
	18103		3
	18104	d) GCM foreign	20
	18105		6
	18106	f) DCP foreign	24
18.2		Percentage of OI held by Top5 CM: daily average over quarter	
	18201		81%
	18202		81%
		Percentage of OI held by Top5 CM: peak EoD over quarter	
	18203		82%
	18204	· · ·	83%
18.3	1010	Percentage of IM posted by Top5 CMs	
	18301		75%
	18302		74%
18.4		Percentage of Top5 CM contributions to CF	72%
19.	10101	Tiered Participation Arrangements (Principle 19)	,2,3
19.1		Measures of concentraion of client clearing	
13.1	19101	C C	556
	19102		23
	19102		77%
	19103		78%
	1010		
I		I	l



#### **Comments and Explanations**

[4]

According to the Clearing Conditions, ECC may request the non-defaulting Clearing Members to replenish their default fund contributions within 10 days after a Clearing Member has been set into default and the default fund has been fully or partially utilized. The amount reported here as replenishment assumes the default of the largest Clearing Member. It is calculated as the total Default Fund Contributions of all Clearing Members less the conribution of the largest Clearingmember.
 ECC maintains cash collateral provided in EURO for initial margin requirements and the default fund contributions at first at its TARGET2 account. ECC does not separate its holdings of cash and cash investments between default fund contributions and margin contributions. According to ECC's collateral policy, ECC does not accept "other types" of collteral for the default fund.

[3] See also https://www.ecc.de/ecc-en/risk-management/collateral-management

ECC does not invest funds with the top five Clearingmembers (according to initial margin requirement) or its affiliates. Therefore, the credit exposures with clients and participants are determined by the clearing service, but not influenced by other creditor relationsships to the Clearing Members.

- [5] Under the term "Segreated Clients", ISA, OSA and SOS segregated accounts are comprised.
- [6] Values are provided in ranges for data protection reasons.
- All margin calculations are based on a general modelling approach either for derivatives or for spot products. The statistical models and all relevant changes to them are part of a regulatory oversight process. They are based on conservative assumptions which are validated once a
   year by external parties. Information concerning the margining approach can be found under:
- https://www.ecc.de/ecc-en/risk-management/margining
- Days without uncovered exposure are not included in the calculation of the average value.
  [8]

Based on ECCs obligation to maintain liquidity for the default of the largest two Clearing Members, reported here are highly secure and [9] liquid securities provided by all Clearing Members as contribution to the Clearing Funds as well as securities provided by the top two Clearing Members as collateral for their initial margin requirement.

Values taken from the latest audited annual financial statement. See alsohttps://www.ecc.de/ecc-en/about-ecc/company/reports

ECC sets individual limits for every single investment counterparty with regard to types of investment as well as overall limits for the individual counterparty and the counterparties company group. These limits are based on an internal risk assessment using different external data sources including external rating agencies.

