



	Index	disclosure item	date, type, value
4.		Credit Risk (Principle 4)	date, type, value
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 Mn. EURO (Bonds at collateral value)
	4101	a) pre-funded own capital that forms part of the default waterfall (used before member	485.4
	4103	1	15.0
	4102	ii. aggregate participant contributions iii. other	470.4
	4104 4105	b) committed	761.6
	4103	i. own/parent funds that are committed to address a participant default	36.8
	4106	""	262.4
	4107	aggregate participant commitments to address an initial participant default iii. aggregate participant commitments to replenish the default fund to deal with a subsequent participant default. [1]	362.4 362.4
		iv. other	n/a
4.2	4201	KCCP	867,846.2
4.3		Value of pre-funded default resources (excluding initial and retained variation margin)	As at quarter end Mn. EURO
	4301	a) total Cash	425.1
	4302	· '	[2]
	4303 4304	l	[2]
	4305		[2]
	4306	l ·	0.0
	4307		8.4
	4308		19.6
	4309 4310		0.5
	4311	l	19.8
	4312		1.0
	4313	c) Bonds at collateral value (post haircut) i. Agency	0.0
	4314		8.1
	4315		17.8
	4316	· · · · · · · · · · · · · · · · · · ·	0.5
	4317 4318	1	0.0
	4319	l i	0.8
		d) other	[3]
4.4	<u> </u>	a) State whether the CCP is subject to a minimum "Cover 1" or "Cover 2"	As at quarter end
7.7	4401		Cover 2
		b) assumed close out period (days)	2
		c) the estimated largest aggregate stress 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	nrevious 12 months
		market conditions?	Mn. EURO
	4403	· · · · · · · · · · · · · · · · · · ·	399.9
	4404	,	236.7
	4405	l	0
	4406 4407	amount of excess of stress loss over DFW, day 1 amount of excess of stress loss over DFW, day 2	n/a n/a
	4408	l	n/a
	4408	amount of excess of stress loss over DFW, day 3	n/a
	4409	· '	n/a
	4410	amount of excess of stress loss over DFW, day 5	n/a



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	amount of excess of stress loss over DFW, day 6	n/a
	amount of excess of stress loss over DFW, day 7	n/a
	amount of excess of stress loss over DFW, day 8	n/a
	amount of excess of stress loss over DFW, day 9	n/a
	amount of excess of stress loss over DFW, day 5	n/a
	d) what was the actual largest aggregate credit exposure (in excess of initial	Mn. EURO
	margin) to any single participants and their affiliates	
		[4]
	i. maximum of daily values	n/a
	4417 ii. average over daily values	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 extreme but plausib	e previous 12 months
	market conditions?	Mn. EURO
	4418 i. maximum of daily values	482.1
	4419 ii. average over daily values	362.9
	iii. number of days where stress loss exeeded DFW	6
	iv. amount of excess of stress loss over DFW, day 1	-10.9
	amount of excess of stress loss over DFW, day 2	-12.7
	amount of excess of stress loss over DFW, day 3	-6.0
	amount of excess of stress loss over DFW, day 4	-0.9
	amount of excess of stress loss over DFW, day 5	-11.2
	amount of excess of stress loss over DFW, day 6	-11.7
	amount of excess of stress loss over DFW, day 7	n/a
	amount of excess of stress loss over DFW, day 8	n/a
	amount of excess of stress loss over DFW, day 9	n/a
	amount of excess of stress loss over DFW, day 10	n/a
	f) what was the actual largest aggregate credit exposure (in excess of initial	11,4
	margin) to any two participants and their affiliates	[4]
	4431 i. maximum of daily values	n/a
	4432 ii. average over daily values	n/a
5.	5000 Collateral (Principle 5)	ii/a
5.1	5101 Assets eligible as initial margin, and the respective haircuts applied	
3.1	http://www.ecc.de/ecc-en/risk-management/collateral-management/over	I view
5.2	Assets eligible for pre-funded participant contributions to the default resources,	
J.2	and the respective haircuts applied	
	http://www.ecc.de/ecc-en/risk-management/collateral-management/over	 violat
F 2	Collateral Backtesting	previous 12 months
5.3		'
	i. confidence interval targeted for haircuts	100
	ii. assumed holding/liquidation period for the assets	3 days
	5303 iii. look-back period	255 days
	5304 iv.	0
	number of days during look-back where fall in value exceeded haircuts	
6.		
Initial I	6000 Margin (Principle 6)	
	Margin (Principle 6)	
	Margin	As at quarter end
6.1	Margin Initial Margin Requirement by type of segregation	Mn. EURO
6.1	Initial Margin Requirement by type of segregation 6101 a) House	Mn. EURO 323.4
6.1	Initial Margin Requirement by type of segregation 6101 a) House 6102 b) non-segregated	Mn. EURO 323.4 0.0
6.1	Initial Margin Requirement by type of segregation 6101 a) House 6102 b) non-segregated 6103 c) segregated clients [5]	Mn. EURO 323.4
6.1	Initial Margin Requirement by type of segregation 6101 a) House 6102 b) non-segregated	Mn. EURO 323.4 0.0
6.1	Initial Margin Requirement by type of segregation 6101 a) House 6102 b) non-segregated 6103 c) segregated clients [5]	Mn. EURO 323.4 0.0 3,934.1 gross
6.1	Initial Margin Requirement by type of segregation 6101 a) House 6102 b) non-segregated 6103 c) segregated clients [5]	Mn. EURO 323.4 0.0 3,934.1 gross As at quarter end
6.1	Initial Margin Requirement by type of segregation 6101 a) House 6102 b) non-segregated 6103 c) segregated clients [5]	Mn. EURO 323.4 0.0 3,934.1 gross
	Initial Margin Requirement by type of segregation a) House b) non-segregated c) segregated clients [5] Initial Margin Requirement for indirect participants: gross or net?	Mn. EURO 323.4 0.0 3,934.1 gross As at quarter end
	Initial Margin Requirement by type of segregation a) House b) non-segregated c) segregated clients [5] Initial Margin Requirement for indirect participants: gross or net? Initial margin received by type of segregation	Mn. EURO 323.4 0.0 3,934.1 gross As at quarter end Mn. EURO
	Initial Margin Requirement by type of segregation a) House b) non-segregated c) segregated clients [5] Initial Margin Requirement for indirect participants: gross or net? Initial margin received by type of segregation a) House	Mn. EURO 323.4 0.0 3,934.1 gross As at quarter end Mn. EURO
	Initial Margin Requirement by type of segregation a) House b) non-segregated c) segregated clients [5] Initial Margin Requirement for indirect participants: gross or net? Initial margin received by type of segregation a) House Cash	Mn. EURO 323.4 0.0 3,934.1 gross As at quarter end Mn. EURO [6]
	Initial Margin Requirement by type of segregation a) House b) non-segregated c) segregated clients [5] Initial Margin Requirement for indirect participants: gross or net? Initial margin received by type of segregation a) House Cash total Cash	Mn. EURO 323.4 0.0 3,934.1 gross As at quarter end Mn. EURO [6] 642.5
	Initial Margin Requirement by type of segregation a) House b) non-segregated c) segregated clients [5] Initial Margin Requirement for indirect participants: gross or net? Initial margin received by type of segregation a) House Cash total Cash deposited at a central bank of issue of the currency	Mn. EURO 323.4 0.0 3,934.1 gross As at quarter end Mn. EURO [6] 642.5 [2]
	Initial Margin Requirement by type of segregation a) House b) non-segregated c) segregated clients [5] Initial Margin Requirement for indirect participants: gross or net? Initial margin received by type of segregation a) House Cash total Cash deposited at a central bank of issue of the currency Cash deposited at other central banks	Mn. EURO 323.4 0.0 3,934.1 gross As at quarter end Mn. EURO [6] 642.5 [2] [2]
	Initial Margin Requirement by type of segregation a) House b) non-segregated c) segregated clients [5] Initial Margin Requirement for indirect participants: gross or net? Initial margin received by type of segregation a) House Cash total Cash deposited at a central bank of issue of the currency Cash deposited at other central banks Secured cash at commercial banks (including reverse repo)	Mn. EURO 323.4 0.0 3,934.1 gross As at quarter end Mn. EURO [6] 642.5 [2] [2] [2]
	Initial Margin Requirement by type of segregation a) House b) non-segregated c) segregated clients [5] Initial Margin Requirement for indirect participants: gross or net? Initial margin received by type of segregation a) House Cash total Cash deposited at a central bank of issue of the currency Cash deposited at other central banks Secured cash at commercial banks (including reverse repo) Unsecured cash deposited at commercial banks	Mn. EURO 323.4 0.0 3,934.1 gross As at quarter end Mn. EURO [6] 642.5 [2] [2] [2]
	Initial Margin Requirement by type of segregation a) House b) non-segregated c) segregated clients [5] Initial Margin Requirement for indirect participants: gross or net? Initial margin received by type of segregation a) House Cash cash deposited at a central bank of issue of the currency cash deposited at other central banks Secured cash at commercial banks Initial margin received by type of segregation a) House Cash Unsecured cash deposited at commercial banks Bonds (market value - w/o haircuts)	Mn. EURO 323.4 0.0 3,934.1 gross As at quarter end Mn. EURO [6] 642.5 [2] [2] [2] [2]

6.3



OJCO D	isclosure for central counterparties	
6208	Agency	10.2
6209	Supranational Agency	0.0
6210	State / Provincial / Municipal - domestic	5.9
6211	State / Provincial / Municipal - foreign	0.0
6212	other Bonds	10.8
	Bonds (collateral value - post haircuts)	
6213	Sovereign Government Bonds - domestic	24.4
6214	Sovereign Government Bonds - foreign	2.3
6215	Agency	9.5
6216	Supranational Agency	0.0
6217	State / Provincial / Municipal - domestic	5.6
6218	State / Provincial / Municipal - foreign	0.0
6219	other Bonds	8.9
	b) non-segregated	
	Cash	
6220	total Cash	0.0
6221	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	0.0
6226	Sovereign Government Bonds - foreign	0.0
6227	Agency	0.0
6228	Supranational Agency	0.0
6229	State / Provincial / Municipal - domestic	0.0
6230	State / Provincial / Municipal -foreign	0.0
6231	other Bonds	0.0
	Bonds (collateral value - post haircuts)	0.0
6232	Sovereign Government Bonds - domestic	0.0
6233	Sovereign Government Bonds - foreign	0.0
6234	Agency	0.0
6235	Supranational Agency	0.0
6236		0.0
6237	State / Provincial / Municipal - foreign	0.0
6238		0.0
	c) segregated clients [5]	
	Cash	[6]
6239	total Cash	3,554.2
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]
	Bonds (market value - w/o haircuts)	
6244	Sovereign Government Bonds - domestic	116.2
6245	Sovereign Government Bonds - foreign	4.4
6246	Agency	0.0
6247	Supranational Agency	0.0
6248	State / Provincial / Municipal - domestic	5.6
6249	State / Provincial / Municipal - foreign	0.0
6250	other Bonds	1.0
	Bonds (collateral value - post haircuts)	0.0
6251	Sovereign Government Bonds - domestic	112.5
6252	Sovereign Government Bonds - foreign	4.1
6253	Agency	0.0
6254	, ,	0.0
6255	State / Provincial / Municipal - domestic	5.4
6256	State / Provincial / Municipal - foreign	0.0
6257	other Bonds	0.8
6301	Initial margin rates on individual contracts, where the CCP sets such rates	[7]



O		,	
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		2 days
	6405		
	6406	http://www.ecc.de/ecc-en/risk-mai Update Frequency	Daily
6.5		Results of back-testing of initial margin Reported are the aggregate results counting outliers of IM calculation at the level	prev. 12 months, daily basis
		of each Non-Clearing Member at ECC.	
	6501		31
	6502		344
	6503		99.5%
	6504		continuously
	6505	l	n/a
		f)	Mn. EURO
	6506	i. breaches of initial margin: peak uncovered exposure	91.2
	6507	ii. breaches of initial margin: average uncovered exposure [8]	1.9
Margin	Calls		
			Average over quarter
6.6		Average total variation margin paid to the CCP	Mn. EURO
	6601	by participants each business day.	100.2
			Maximum over quarter
6.7		Maximum total variation margin paid to the CCP on any given business day	Mn. EURO
	6701	over the period.	389.9
C 0		Marine une aggregate initial recordin cell an any given by sinces developed the	Maximum over quarter
6.8	6004	Maximum aggregate initial margin call on any given business day over the	Mn. EURO
7.	6801	period. Liquidity Risk (Principle 7)	303.6
7.1	71.01	or 'Cover 2'.	Cover2
7.1	/101	Size and composition of qualifying liquid resources for each clearing service, for	Coverz
		each relevant currency	Mn. EURO
		a) Cash deposited at a central bank of issue of the currency concerned	As at quarter end
	7102	i. EUR	4,745.8
	7109		0.0
	7128	··· IDV	0.0
	7135		0.0
	7116	v. USD	0.0
		b) Cash deposited at other central banks	As at quarter end
	7103	i. EUR	0.0
	7110		0.0
	7129		0.0
	7136		0.0
	7117		0.0
		c) Secured cash deposited at commercial banks (including reverse repo)	As at quarter end
	7104		0.0
	7111		0.0
	7130 7137		0.0
	7118		0.0
	,110	d) Unsecured cash deposited at commercial banks	0.0
	7105		33.2
	7103	ii. GBP	25.1
	7131		0.0
	7138		0.0
	7119	v. USD	0.5
		e) secured committed lines of credit including committed foreign exchange swaps	As at quarter end
		and committed repos	
	7106		0.0
	7113		0.0
	7132	iii. JPY	0.0
	-		



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	7139	iv. NOK	0.0
	7120		0.0
	,120	f) unsecured committed lines of credit which the CCP may draw without providing	
		collateral/security	, is at quarter ena
	7107	i. EUR	40.0
	7114	ii. GBP	0.0
		iii. JPY	0.0
	7133		
	7140		0.0
	7121	v. USD	0.0
		g) highly marketable collatoral hold in systody and investments that are readily	As at quarter end
		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	[9]
	7108	i. EUR	49.4
	7115	ii. GBP	0.0
	7134	iii. JPY	0.0
	7141	iv. NOK	0.0
	7122	v. USD	0.0
		h) other	
		i. EUR	0.0
		ii. GBP	0.0
		iii. JPY	0.0
		iv. NOK	0.0
		v. USD	0.0
		i)	As at quarter end
		State whether the CCP has routine access to central bank liquidity or facilities.	
	7123	i. EUR	yes - intraday facility
	7124	ii. GBP	no
	7126	iii. JPY	no
	7127	iv. NOK	no
	7125	v. USD	no
7.2		Supplementary Liquidity over those from 7.1	n/a
7.3		Largest same-day payment obligation in total that would be caused by the default	1
		of any single participant and its affiliates in extreme but plausible market	previous quarter
		conditions?	Mn. EURO
	7301	i. maximum estimated amount	1,244.7
	7302	ii. number of days where estimated payment exceeded liquidity	0
	,502	iii. amount of excess on each day:	
	7303	amount of exess of payment over liq., day 1	n/a
	7304	amount of exess of payment over liq., day 2	n/a
	7305	amount of exess of payment over liq., day 3	n/a
	7306	amount of exess of payment over liq., day 4	n/a
	7307	amount of exess of payment over liq., day 5	n/a
	7307	amount of exess of payment over liq., day 6	n/a
	7309	amount of exess of payment over liq., day 7	n/a
	7310	amount of exess of payment over liq., day 8	n/a
	7310	amount of exess of payment over liq., day 9	n/a
		amount of exess of payment over liq., day 10	n/a
	7312	actual largest payment obligation to a single participant over the past 12	11/4
	7212	iv. months	n/2
12.	7313	Exchange of Value Settlement Systems (Principle 12)	n/a
12.1		Exchange of value Settlement Systems (Finiciple 12)	1
14.1	12101	Percentage of settlements by value effected using a DvP, DvD or PvP settlement	n/a
12.2	12101	Percentage of settlements by volume effected using a DVP, DVD or PVP settlement	11,4
12.2	12201	mechanism	n/a
	12201	mediansm	11/4
43		Defects Dules and Dures down (D. 1911 L. 40)	1
13		Default Rules and Procedures (Principle 13)	т
13.1		Quantitative information related to past defaults	. ,
	13101	a) amount of loss vs. amount of margin	n/a
	13102	b) amount of other financial resources used to cover losses	n/a
	13103	c) proportion of client positions closed-out/ported	n/a
		Commention and Double (Ithe / D. C. C. L. 4.4)	<u> </u>
14.		Segregation and Portability (Principle 14) Total client positions (Open Interest) as a share of notional values, by type of	1
14.1			

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		segregation	[6]
	14101	a) basis: OI short side i. HOUSE	< 5%
	14101		< 5%
	14103		92%
	14104		< 5%
		b) basis: OI long side	
	14105	i. HOUSE	< 5%
	14106	ii. ISA	< 5%
	14107	1	92%
	14108		< 5%
<u>15.</u>		General Business Risk (Prinicple 15)	I Ma EUDO
15.1	45404	a) value of liquid net assets funded by equity (EMIR capital)	Mn. EURO 118.9
13.1		b) six months of current operating expenses	28.1
15.2	15102	Financial disclosures	[10]
13.2	15201	a) total revenue	100,606,972 €
		b) total expenditure	48,676,604 €
		c) profits	51,955,951 €
		d) total assets	4,923,325,853 €
		e) total liabilities	4,923,325,853 €
	15206	1 '	All Cash is held on the
		Explain if collateral posted by clearing participants is held on or off the CCP's	balance sheet; pledged
		balance sheet	bonds not
15.3		Income breakdowns	Solids Hot
13.3	15201	a) percentage of income from clearing fees	100%
		b) percentage of income from cleaning rees b) percentage of income from reinvestment of assests provided by clearing	0%
	13302	participants	070
16.	1	Custody and Investment Risks (Principle 16)	
			As at quarter end
			Mn. EURO
16.1	16101	Total Cash received by the CCP from participants	4,620.9
	16102	Total Cash received by the CCP from participants: Default Fund contributions	425.1
	16103	Total Cash received by the CCP from participants: Initial Margins	4,195.8
16.2		Investment of Cash: Deposits	
	16201		100%
	16202	· · ·	0%
	16203	· '	0%
	16204	· · · · · · · · · · · · · · · · · · ·	0%
	16205		0%
	16206	l '	100%
	16207 16208	1 7:	0%
	16209	1 "	0%
	16210		< 1
	10210	Investment of Cash: Securities	
	16211	l	0%
	16212		0%
	16213		0%
	16214		0%
	16215		0%
	16216	l a'	0%
	16217		0%
	16218		0%
	16219	1	0
		Investment of Cash: Investment Risk	
	16220	VaR(99%) of total investment portfolio	n/a
	16221	' '	individual limits, see [11]
	16222	Number of limit breaches	0
16.3	16301	Investment of Cash: Rehypothetication of Cash	none
		ECC does not use the instrument of rehypothetication of cash for	
17.		investment Operational Risk (Principle 17)	

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17.1	17101 Operational availability targets for the core systems involved	•
17.2	Achieved availability of the core systems, previous twelve mo	
17.3	17301 Total number of failures affecting the core systems, previous	•
	17302 Total duration of failures affecting the core systems, previous	·
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	1
	18102 b) DCM foreign	3
	18103 c) GCM domestic	5
	18104 d) GCM foreign	23
	18105 e) DCP domestic	6
	18106 f) DCP foreign	39
18.2	Percentage of OI held by Top5 CM: daily average over quarte	r
	18201 a) basis: long side	77%
	18202 b) basis: short side	79%
	Percentage of OI held by Top5 CM: peak EoD over quarter	
	18203 c) basis: long side	78%
	18204 d) basis: short side	80%
18.3	Percentage of IM posted by Top5 CMs	
	18301 a) peak EoD over quarter	71%
	18302 b) daily average over quarter	68%
18.4	18401 Percentage of Top5 CM contributions to CF	57%
19.	Tiered Participation Arrangements (Principle 19)	
19.1	Measures of concentration of client clearing	
	19101 a) Number of known clients	582
	19102 b) Number of CM clearing for clients	28
	19103 c) Client OI attributale to Top5 CM	78%
	19104 d) Client OI attributale to Top5 CM	77%

Comments and Explanations

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:

- [7] parties. Information concerning the margining approach can be found https://www.ecc.de/ecc-en/risk-management/margining
- Days without uncovered exposure are not included in the calculation of the average value.
- Based on ECCs obligation to maintain liquidity for the default of the largest two Clearing Members, reported here are highly secure and 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.
- [10] Values taken from the latest audited annual financial statement. See also https://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.