

Collateral Policy

Securities Market

Document Title	EMIR* Article	RTS** Article	Document Class
Collateral Policy Securities Market	46	37	<i>Policy approved by General Management; regularly reviewed by the Risk Committee</i>

*EMIR = Regulation (EU) 648/2012; ** RTS = del. Regulation (EU) 153/2013

Document Information

Document Owner	Chief Risk Officer
Document Reviewer	Operations Team
Document Approver	General Management

Document Review Cycle

yearly

Change Log¹

Version	Effective Date	Change Description
V2.0	12.1.2014	Update on obligation to cover margin requirements by 10% in cash; new definition of eligible securities for collateral
V2.1	7.7.2014	Clarification on concentration limits: limits defined in regulation (EU)153/2013 (RTS) are considered, limits are not applied on collateral exceeding the required amount (no limits for over collateralisation)
V2.2	14.7.2014	Update of minimum haircut per collateral class (Table 3 in Section 3.1)
V2.3	1.12.2014	Reduction of holding period from T+4 to T+3 due to introduction of settlement period T+2
V2.4	4.5.2016	Annual review – no changes
V2.5	12.5.2017	Amendments in concentration limits
V2.6	04.05.2018	Annual review – minor editorial changes
V2.7	12.04.2019	Annual review – minor editorial changes

¹ The change log is only kept for finally valid versions; CCP.A internal coordination in the creation or change process are not contained.

V2.8	07.04.2020	Annual review – no changes
V2.9	22.04.2021	Annual review – update of the haircut categories defined by the ECB in the Guideline (EU) 2016/65 (Table 1: Haircut categories pursuant to ECB), update of the assignment of bonds to Collateral Classes (Table 2: Overview Collateral Classes), update of the layout
V3.0	02.05.2022	Annual review – no changes

Contents

1	Introduction.....	5
2	Collateral to cover the Margin Requirement.....	6
2.1	Immediately Available Collateral – Cash	6
2.2	Securities as Accepted Collateral.....	6
2.2.1	Collateral Class 1.....	8
2.2.2	Collateral Class 2:.....	8
2.2.3	Collateral Class 3:.....	8
2.3	Collateral Not Accepted.....	9
3	Valuation and Haircuts.....	9
3.1	Determination of the Haircuts	10
4	Limits.....	10
4.1	Cash Limits	11
4.2	Concentration Limits for Securities Deposited as Collateral.....	11
5	Review of the Collateral Composition.....	12
5.1	Review of the Securities’ Characteristics.....	12
5.2	Review of Price Volatility	12
5.3	Review of Concentration Limits.....	13
5.4	Review of the Collateral Policy	13
6	Wrong Way Risk.....	13
7	Reporting.....	13
8	Accepted Collateral for the Default Fund.....	14
8.1	Immediately Available Collateral – Cash	14
8.2	Collateral Not Accepted.....	14
8.3	Valuation and Haircuts	14
8.4	Limits	14
8.5	Reporting.....	14

1 Introduction

In this document, CCP.A defines its collateral policy in accordance with Article 46, Collateral Requirements, Regulation (EU) No. 648/2012 and pursuant to the supplementing Regulation ESMA, "*Regulatory technical standards on requirements for central counterparties*", Chapter X Art. 37-42. CCP.A accepts only highly liquid securities with minimal credit and market risk to cover its Clearing Members' risk exposure. CCP.A has taken a conservative approach to the admission of certain assets as collateral and to their evaluation.

A description is given of the procedures for selecting the instruments accepted as collateral as well as the valuation guidelines. This includes the definition of adequate haircuts for each of the instruments that reflect the potential for their value to decrease over the period between their last assessment and the time by which they can reasonably be assumed to be liquidated. Moreover, the collateral policy considers the establishment of concentration limits (collateral limits). Strategies for avoiding "wrong way risk" are also explained.

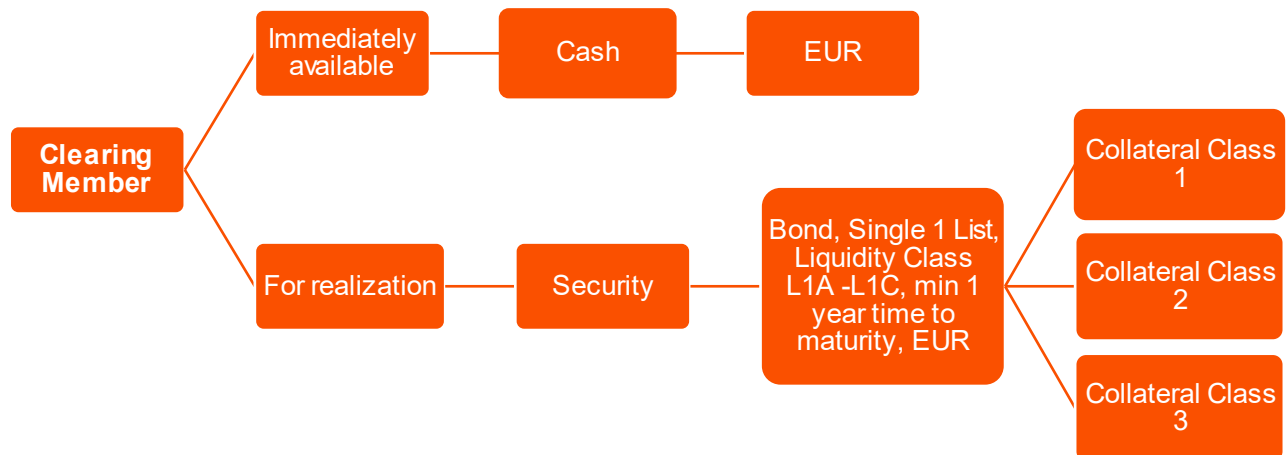
This Collateral Policy refers to the appropriate and sufficiently prudent financial instruments to originate the CCP.A exposure as collateral to cover its margin requirements and the contribution to the default fund.

Part A of the document (chapters 2-7) only concerns the collateral deposited to cover the margin requirements.

Part B of the document (chapter 8) concerns the contribution to the default fund.

Part A Accepted Collateral for the Margin Requirement

2 Collateral to cover the Margin Requirement



2.1 Immediately Available Collateral – Cash

Cash collateral is only accepted in the settlement currency admitted by CCP.A. However, not every clearing currency is automatically recognised as cash collateral.

At present, the following currencies are accepted:

- Euro (EUR)

2.2 Securities as Accepted Collateral

Securities are only accepted for the margin requirement, but not as deposits for the contribution to the default fund (see Part B, Chapter 8).

Securities are accepted from issuers with low credit and market risk, which are freely transferable and tradable on regulated markets for which price data is regularly published.

The following securities are therefore accepted as collateral by CCP.A.

Collateral Class 1-3:

- Debt instruments specified on the list of eligible marketable assets of the ECB (<https://www.ecb.europa.eu/paym/coll/assets/html/index.en.html>).
- Listed in EUR
- Assignable to one of the haircut categories in the table
- Remaining time to maturity of at least one year
- Listed on a regulated market in the EU
- The issuer is not
 - the Clearing Member or a company with which the Clearing Member is affiliated
 - CCP.A or a company belonging to the same group, i.e., WBAG or OeKB an entity that provides services critical for functions of CCP.A unless the entity is an EEA central bank. The following company is currently defined as such an entity: OeKB as the

settlement bank. For securities in Collateral Class 1-3 in the single list, the max haircut is 10% (i.e. haircut <= 10%).

- CCP.A retains the right to delete securities with 'Issuer Residence' in specific countries from the list of accepted collateral.

CCP.A assigns each security to one of three Collateral Classes. The assignment to a Collateral Class reflects the credit quality of a security; securities in Collateral Class 1 have the highest creditworthiness.

When assigning a security to a Collateral Class, the price availability, the reference market and the haircut category considered adequate by the ECB are taken into consideration.

Haircut categories

When evaluating the Collateral Class, CCP.A uses the haircut categories defined by the ECB in the Guideline (EU) 2016/65 as well as indicators it has developed itself for price availability:

Category I (L1A)	Category II (L1B)	Category III (L1C)	Category IV (L1D)
Central government debt instruments	Local and regional government debt instruments	Traditional covered bonds and other covered bonds	(Unsecured) credit institution debt instruments
Debt instruments issued by national central banks	Jumbo covered bonds	Debt instruments issued by non-financial corporations	(Unsecured) debt instruments issued by financial corporations other than credit institutions
Debt instruments issued by the ECB	debt instruments issued by entities classified as agencies by the Eurosystem		
	debt instruments issued by multilateral development banks and international organisations		

Table 1: Haircut categories pursuant to ECB

In addition to the haircut categories pursuant to ECB, the liquidity of securities is also assessed based on available closing prices. To this end, an analysis is conducted to evaluate on how many days no prices were determined within an observation period on which, and therefore, the historic closing price has to be used.

Price Availability

The indicator 'price availability' is derived from the quotient of the number of current closing prices / number of trading days.

Example:

Observation period 1 Jan. 2013 to 30 Jun. 2013: 122 trading days
 ISIN AT0000809058 had a current price on 122 trading days; price availability: 100%
 ISIN AT0000723606 had a current price on 46 trading days; price availability: 38%
 ISIN AT0000A001X2 had a current price on 4 trading days; price availability: 3%

The securities are grouped into the following Collateral Classes.

2.2.1 Collateral Class 1

- Haircut Category 1A
- Price availability at least 95%
- Reference Market RMAT01 (WBAG, Official Market)
- ECB haircut max. 5%
- Individual haircut < maximum haircut of the Collateral Class

2.2.2 Collateral Class 2:

- Haircut Category 1A or 1B
- Price availability at least 50%
- No restrictions to the reference market
- ECB haircut max 8%
- Individual haircut < maximum haircut of the Collateral Class

2.2.3 Collateral Class 3:

- Haircut Category 1A to 1D
- Price availability less than 50%:
- ECB haircut max. 10%
- No further restriction of Haircut Categories or Reference Market

The table below gives an overview of the assignment of bonds to Collateral Classes

Credit Rating	Time to Maturity	Haircut Class							
		L1A		L1B		L1C		L1D	
		Straight	Zero	Straight	Zero	Straight	Zero	Straight	Zero
(AAA to A-)*	0-1	0.5	0.5	1.0	1.0	1.5	1.5	6.5	6.5
	1 - 3 years	1.0	2.0	1.5	2.5	2.0	3.0	8.5	9.0
	3 - 5 years	1.5	2.5	2.5	3.5	3.0	4.5	11.0	11.5
	5 - 7 years	2.0	3.0	3.5	4.5	4.5	6.0	12.5	13.5
	7 - 10 years	3.0	4.0	4.5	6.5	6.0	8.0	14.0	15.5
	> 10 years	5.0	7.0	8.0	10.5	9.0	13.0	17.0	22.5
(BBB+ to BBB-)*	0-1	6.0	6.0	7.0	7.0	8.0	8.0	13.0	13.0
	1 - 3 years	7.0	8.0	10.0	14.5	15.0	16.5	24.5	26.5
	3 - 5 years	9.0	10.0	15.5	20.5	22.5	25.0	32.5	36.5
	5 - 7 years	10.0	11.5	16.0	22.0	26.0	30.0	36.0	40.0
	7 - 10 years	11.5	13.0	18.5	27.5	27.0	32.5	37.0	42.5
	10 years	13.5	16.5	22.5	33.0	27.5	35.0	37.5	44.0

Table 2: Overview Collateral Classes

Legend:

Green: Collateral Class 1
 Orange: Collateral Class 2
 Blue: Collateral Class 3

CCP.A may re-assign an instrument that meets the criteria of Collateral Class 1 or 2 at any time to the next lower Collateral Class

2.3 Collateral Not Accepted

Bank guarantees, gold and securities that do not meet the conditions stated in 2.2 as well as cash that is not denominated in the currencies listed in 2.1.

CCP.A retains the right to restrict the list of accepted collateral at any time, also for specific Members.

3 Valuation and Haircuts

Every cash collateral account and securities collateral account is assessed separately to determine the value of the collateral deposited by a Clearing Member and added up in accordance with the selected account structure.

The following valuation rules are applied:

- a. Cash collateral in EUR is valued at the current cash value in the respective currency without applying any further haircuts.

Example: When EUR 100,000 is deposited in cash, a value of EUR 100,000 is accepted as collateral.

- b. Securities are valued at the last available price, with haircuts being applied.
- c. For every security deposited on the cash collateral account, the volume deposited is multiplied by the last available price. This value is reduced by the haircut defined.

Example:

- Volume deposited: EUR 100,000
- Last available price: 98%
- Haircut: 5%
- Value of the collateral: $100,000 * 0.98 - 100,000 * 0.98 * 0.05 = 93,100\text{€}$

3.1 Determination of the Haircuts

The size of the haircut of a security is determined per Collateral Class, applying the following methods:

CCP.A computes the historic volatility per security based on daily closing prices. To this end, the same methods are applied as for calculating the risk factors (see document "*Margin Calculation Methodology*", <https://www.ccpa.at/en/risk-management/margin-calculation>).

The calculation is carried out on a monthly basis applying the following parameters:

- Lookback period: 600 days, 1 year
- Holding period: 3 days
- Confidence level: 99%

The volatility, calculated in this manner, is compared to the haircut published by the ECB for this security. The higher value of the calculated, historical volatility and the haircut considered adequate by the ECB is assigned to the security (individual haircut).

By considering the haircuts defined by the ECB, the credit quality, liquidity, remaining time to maturity and type of interest (fixed income = 'straight', zero coupon = 'zero') are implicitly taken into consideration.

The haircut of a Collateral Class is taken from the average haircut of all securities of a Collateral Class, with a minimum and a maximum level being defined for the haircut.

Collateral Class	Minimum	Maximum
1	8%	20%
2	10%	20%
3	12%	n.a. (100%)

Table 3: CCP.A Haircuts minimum / maximum per Collateral Class

4 Limits

All limits are applied on the required collateral amount only. They do not apply to collateral held by the CCP.A in excess of the minimum requirements for margins.

4.1 Cash Limits

EUR: 100% on a Member basis and for CCP.A total; no limits are set for cash deposits in EUR. This means that every Member may deposit the entire collateral in cash in EUR.

Total Cash Limit from a Member's perspective: Every Member shall deposit at least 10% of the margin requirement for the cash market in the form of "cash collateral".

Total Cash Limit from CCP.A's perspective: 100%; the whole collateral may be deposited in cash.

4.2 Concentration Limits for Securities Deposited as Collateral

There are concentration limits per Collateral Class, individual issuer and groups of issuers. The collateral per Clearing Member and/or the entire collateral deposited with CCP.A is taken into account, with the assessed collateral (i.e. incl. haircut) being used.

Example for a Collateral Class limit for a Member:

- Bank XY has deposited EUR 1,500,000 in cash collateral and assessed bonds of Collateral Class 2 with a nominal value of 1.2 million at the current price. Applying a haircut of 10% results in a collateral value of 1,076 million.
- The share of collateral in Collateral Class 2 of Bank XY is therefore 42%

(1,076/ 2,576) and is within the limit of 75%.

Example for an issuer limit CCP.A total:

- CCP.A has collateral totalling EUR 440 million (cash collateral + assessed securities collateral including the haircut). As cover, bonds of the issuer "Kreditanstalt für Wiederaufbau" in an amount of EUR 22 million have been deposited (valued at the last available price and applying the haircut).
- Thus, at CCP.A 5% of the total collateral is of an individual issuer and therefore within the limit of 50%.

The following concentration limits have been defined:

Collateral Type	Group	Limit CCP.A total	Limit per member
Cash		100%	100%
Securities	For margin requirements on the cash market	90%	90%
thereof in securities			
Collateral Classes	1	100%	100%
	2	100%	100%
	3	50%	50%
Issuer group	IG1 Central Bank	100%	100%
	IG2 Central Government	100%	100%
	IG3 Corporate and Other Issuers	25%	50%
	IG4 Credit Institutions	25%	50%
	IG5 Regional/Local Government	25%	50%
	IG6 Supranational Issuer	25%	50%

	IG7 Agency – Non-Credit Institution	25%	50%
	IG8 Agency - Credit Institution	25%	50%
	IG9 Other Financial Corporations	25%	50%
Individual issuer	Central Government		
	AAA-AA Rating (S&P)	75%	100%
	A Rating (S&P)	50%	75%
	All others	25%	50%
	Guaranteed by single credit institution Limit acc. RTS Art 42 (4).	10%	n.a.

Table 4: Concentration limits for the composition of the collateral

CCP.A publishes the list of all states, which are currently accepted as issuers of government bonds on its web-site: <https://www.ccpa.at/risikomanagement-wertpapierabwicklung/sicherheiten-collateral-policy/>.

CCP.A may also take the total outstanding volume of the issuer in relation to the value in CCP.A's Portfolio for collateral of issuer group 3-9 into consideration, when determining the eligibility of single instruments.

5 Review of the Collateral Composition

5.1 Review of the Securities' Characteristics

The credit and market quality is assessed based on the Single List published by the ECB at the time of delivery or replacement as well as on a monthly basis.

The assessment includes a review of the haircut category, the reference market as well as the haircuts recommended by the ECB and based on these parameters, the assignment of the deposited collateral to the Collateral Classes is evaluated, and if necessary, adjustments are made. Any adjustments are recorded in the monthly report.

5.2 Review of Price Volatility

Price volatility of the securities deposited as collateral should be at a significance level of 99% within the price deviations covered by the haircuts. This is given because the calculation of individual potential volatility per security is done at a confidence level of 99%. The monthly review is done within the scope of the monthly revaluation of the haircuts.

In the case of securities of Collateral Class 1, the volatility corridors defined by the trading system limit the potential price fluctuation. Furthermore, the securities are traded in a single intra-day auction; therefore, there is no intraday price fluctuation.

For collateral not traded in the trading system, the prices are made available by OeKB CSD GmbH. The prices are loaded daily into the PAMP system (see "Margin Calculation Methodology") and are checked within the scope of the monthly revaluation of the haircuts.

5.3 Review of Concentration Limits

The collateral composition of CCP.A and of the ten largest Members is carried out on a monthly basis.

In the case of limit breach by a Member, the Member is requested to replace the securities within the period defined by CCP.A.

5.4 Review of the Collateral Policy

The Collateral Policy is reviewed at least once a year by the Risk Committee. The review is conducted on the basis of the monthly collateral reports of CCP.A.

6 Wrong Way Risk

Wrong-way risk refers to the risk of correlation of default probability of a Clearing Member and of the (market) risk of a Member's positions (rising exposure at rising default probability or sinking credit rating).

This is the case, for example, when a Member deposits its own issues as collateral. For this reason, CCP.A does not accept any securities as collateral issued by a Member, by an entity belonging to the same group or by an affiliated company of the group (stake >20%).

Furthermore, a higher credit risk factor is assigned to Members with low credit ratings and this increases the collateral (cf. "*Margin Calculation Methodology*").

CCP.A reviews the composition of the collateral (see Collateral Reports) on a monthly basis and may, if necessary, reject securities as collateral for specific Members if there is a correlation between the exposure and the collateral deposited.

7 Reporting

A collateral report is prepared monthly for the management board that contains the following information:

- List of securities deposited as collateral as of the cut-off date and their characteristics
 - Haircut categories
 - ECB haircut
 - Reference market
 - Issuer type
 - Asset type
 - Remaining time to maturity
 - Collateral class
- Composition of the collateral by collateral type and class
- Composition of the collateral by issuer group
- Exceptional events in connection with the collateral deposited such as extraordinary price fluctuations, restrictions to the collateral accepted.

Part B Collateral to cover the contribution to the Default Fund

8 Accepted Collateral for the Default Fund

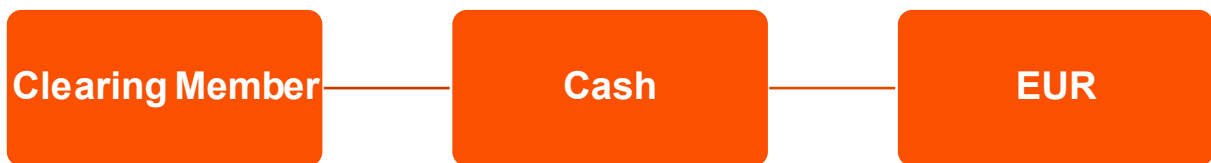


Figure 1 : Accepted collateral for the default fund

8.1 Immediately Available Collateral – Cash

Only cash collateral in EUR is allowed for the contribution to the default fund. The amount shall be transferred to a dedicated default fund cash account of CCP.A.

8.2 Collateral Not Accepted

Bank guarantees, gold, securities and cash that does not correspond to the listed currencies in 8.1.

8.3 Valuation and Haircuts

Cash collateral in EUR is valued using the current cash value in the respective currency without further haircuts.

Example: If 100.000 € are deposited in cash, then the value of 100.000 € will be accepted as security.

8.4 Limits

As the entire contribution to the default fund will only be deposited in cash (€), no other limits are applied.

8.5 Reporting

The management board is informed about the Participants' individual contribution to the default fund every month.