

EBA/RTS/2024/10

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Final Report

Draft Regulatory Technical Standards

to further specify the liquidity requirements of the reserve of assets
under Article 36(4) of Regulation (EU) 2023/1114

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1. Executive Summary

Article 36(1) of MiCAR requires issuers of asset-referenced tokens, either if the asset-referenced tokens are classified as significant or not, to constitute and at all times maintain a reserve of assets. The target of the reserve of assets is to ensure a timely payment to the holders, upon redemption request of the tokens at any time, in funds by the market value of the assets referenced or via their physical delivery.

The requirement of a reserve of assets applies as well to electronic money (e-money) institutions issuing e-money tokens that are significant by virtue of Article 58(1) of MiCAR and can be expanded to e-money institutions issuing e-money tokens that are not significant if the competent authority of the home Member State requires it so following Article 58(2) of MiCAR.

With these draft Regulatory Technical Standards (RTS) the EBA is complying with its mandate in Article 36(4) of MiCAR to establish, in close cooperation with ESMA and the ECB, a percentage of the reserve of assets with a maturity of no longer than 1 working day, an additional percentage of the reserve of assets with a maturity of no longer than 5 working days and any additional percentage of the reserve of assets with any maximum maturity that can be found relevant. Furthermore, the RTS shall establish overall techniques for liquidity management to further specify the liquidity requirements of the reserve of assets. Moreover, the RTS shall also establish the specific minimum amount of deposits in each official currency referenced, which cannot be lower than 30% of the amount referenced in each official currency if the asset-referenced token is not significant¹ or 60% if the asset-referenced token is significant.

Pursuant to the above mentioned mandate the EBA is required to take into account the size, complexity and nature of the reserve of assets and of the asset-referenced token itself. Furthermore, the EBA is mandated to take into account the concentration limits of the investment of the assets of undertakings for collective investment in transferable securities (UCITs) under its regulatory framework², for the purposes of the establishment of the overall techniques of liquidity management of the reserve of assets as well as for the percentages of the reserve of assets with maximum maturities.

Next steps

The draft regulatory technical standards will be submitted to the Commission for endorsement following which they will be subject to scrutiny by the European Parliament and the Council before being published in the Official Journal of the European Union.

¹ Article 45(7)(b), point (d), of MiCAR has a similar mandate to the EBA to specify in the relevant RTS that minimum amount of deposits where it comes to tokens referenced to official currencies that are significant.

² Article 52 of Directive 2009/65/EC.

2. Background and rationale

1. Article 36 (4) Regulation (EU) 2023/1114 on markets in crypto-assets (MiCAR) mandates the EBA to develop draft regulatory technical standards (RTS) further specifying the liquidity requirements of the reserve of assets that issuers of significant assets referenced tokens (ARTs), non-significant ARTs and e-money institutions issuing significant e-money tokens (EMTs) (as well as e-money institutions issuing non-significant EMTs if required by the relevant competent authority)³ shall constitute and at all times maintain. In the development of these draft RTS the EBA shall take into account the size, complexity and nature of the reserve of assets and of the asset-referenced token itself.
2. The reserve of assets shall be composed of the assets that the issuer receives and keeps when issuing the tokens (e.g. deposits with credit institutions, commodities...) and by the highly liquid financial instruments the issuer may invest in.
3. Article 36(4) MiCAR envisages that a minimum percentage of the reserve of assets shall mature within one working day, including reverse repurchase agreements that can be terminated and funds that can be withdrawn within that period of time, and that another minimum percentage of it shall mature no later than within five working days. The EBA shall specify in the draft RTS these percentages as well as any other percentages for other maturities if relevant, and overall techniques liquidity management of the reserve of assets, taking into account the concentration limits in the UCITs framework.
4. Furthermore, the EBA shall specify the minimum amount of deposits in credit institutions, which cannot be lower than 30% of the amount referenced in each official currency, for the cases of EMTs or ARTs, if they are not significant, or 60% if the EMTs or ARTs are significant. The mandate to specify that minimum amount for tokens that are not significant is envisaged under Article 36(4) and the mandate for such specification for the case of significant tokens is in Article 45(7)(b). For consistency reasons both are established in these draft RTS. Those minimum amounts in the form of deposits with credit institutions do not apply for the cases of assets referenced that are other than official currencies, for example commodities, financial instruments or crypto assets.
5. For the development of these RTS, the EBA builds on the 2022 Basel standard on the prudential treatment of crypto assets exposures from December 2022⁴, the 2023 Basel report on the definition of the reserve of assets (under work) as well as the UCITs Directive 2009/65 and the Commission Delegated Regulation (EU) 2015/61 (“LCR Delegated Regulation”) as envisaged in MiCAR. The EBA has also taken into account the regulatory framework of money market funds under Regulation (EU) 2017/1131 and some reports published by the relevant authorities regarding cases of crisis related to crypto activities.

³ As envisaged in paragraph 1 of Article 36 (on issuers of ARTs, irrespective of whether or not they are significant) in conjunction with paragraph 1 of Article 58 (on e-money institutions issuing significant EMTs) and paragraph 2 of Article 58 (on e-money institutions issuing EMTs that are not significant).

⁴ <https://www.bis.org/bcbs/publ/d545.pdf>

2.1 Minimum percentage of reserve assets with maximum termination periods of 1 and 5 working days and other relevant maturities

2.1.1 Definition of the reserve of assets

6. Assets received by the issuer when issuing the EMTs or ARTs may be kept (e.g. deposits in credit institutions, commodities...) or invested in highly liquid financial instruments. All of them integrate the reserve of assets.
7. MiCAR envisages a minimum amount of deposits with credit institutions of 30% (or 60% for significant ARTs or EMTs) of the asset referenced in each official currency.
8. The EBA has proposed in the draft RTS under Article 38(5) to specify that highly liquid financial instruments will be composed of Level 1 liquid assets subject to 0% haircut in accordance with Delegated Regulation (EU) 2015/61 (the liquidity coverage ratio – “the LCR”), Level 1 covered bonds in the LCR and financial instruments used as assets referenced or derivatives relating to them in the case of ARTs referenced to other than official currencies.
9. The percentages established in these RTS of the reserve of assets with maximum termination periods of 1 and 5 working days apply to all the relevant reserve assets together, i.e. deposits in credit institutions and highly liquid financial instruments.

2.1.2 Size, complexity and nature of the assets referenced token and of the reserve of assets under this requirement and calibration

a. Tokens referenced to official currencies

10. The mandate under Article 36(4) MiCAR requires to develop the draft RTS “taking into account the size, complexity and nature of the reserve of assets and of the asset-referenced token itself”.
11. The requirements in Article 36(4)(a) and Article 36(4)(b) of MiCAR to establish minimum percentages of reserve assets with maximum maturities seem to be mainly referred to the period of time to receive cash from withdrawable deposits with credit institutions and to the termination of reverse repos. This is related to the capacity of these reserve assets to generate readily available funds needed for redemption of tokens. The requirement does not seem to be relevant as regards the residual maturity of securities and its effectiveness to redeem tokens since securities might always be liquidated via sales or repos. A maturity requirement of 1 or 5 working days maturity does not seem a logical way to ensure that a security within the reserve of assets will not be subject to price volatility risk. Under such extremely short residual maturity the market value of the security is close, if not equal, to its par value and will in practice make the security non-tradable which would exclude it from the reserve of assets.
12. The legislator requires a minimum amount of deposits with credit institutions in the case of tokens referenced to official currencies only. Since redemption of tokens referenced to official currencies shall always be paid in funds, the minimum amount of deposits with credit institutions required in tokens referenced to official currencies is material in the reserve of assets, i.e. 30% of the amount

referenced in each official currency or 60% if the token is significant. Therefore, it is necessary that deposits (or reverse repos) have a short maturity (1 or 5 working days) to ensure that the reserve of assets can generate at all times enough funds to fulfil redemption requests.

13. For these reasons the EBA proposes to require these minimum percentages in Article 36(4)(a) and Article 36(4)(b) of MiCAR to tokens that are referenced to official currencies.

b. Tokens that are not referenced to official currencies

14. The EBA also highlights that even though in the case of tokens that are not referenced to official currencies the reserve of assets is not required to include deposits with credit institutions, the issuer can decide to hold deposits with credit institutions in the reserve of assets. Redemption in funds applies to tokens where the issuer received funds upon their issuance and committed to redeem in funds if the token holder would decide so. Therefore, to ensure that the reserve of assets, in the case of tokens referenced to other than official currencies but where the reserve of assets includes deposits with credit institutions (or reverse repos), can generate at all times enough funds to fulfil redemption requests in funds, it is necessary that a minimum amount of those deposits (or reverse repos) have a short maturity (1 or 5 working days).

15. These draft RTS envisage minimum percentages of the deposits held with credit institutions or reverse repos held in the reserve of assets of these tokens, with maximum maturities of 1 or 5 working days, following the mandate in Article 36(4)(c).

16. These minimum percentages do not apply to the reserve of assets of tokens that are not referenced to official currencies and where their reserves of assets do not include deposits with credit institutions or reverse repos. In the case of tokens referencing a combination of official currencies with assets other than official currencies the minimum percentages apply as indicated for the part of the amount referencing official currencies and the part of the amount referencing other than official currencies.

c. Calibration of the minimum percentages of the reserve of assets, in the token referenced to official currencies, and of the minimum percentages of the deposits with credit institutions or reverse repos in tokens referenced to other than official currencies.

17. The calibration of the percentages is different for significant tokens and those that are not significant. The minimum required amount of deposits held with credit institutions is different (60% or 30%, respectively, of the amount referenced in each official currency) and thus it seems logical to ensure that the full amount of these deposits is effective for a prompt redemption of tokens upon request at any time, including under stress. Moreover, a token is significant if, among other things, it is highly interconnected to the financial system and has a more international scope. Therefore, higher percentages for significant tokens may mitigate any contagion risks.

18. With this proposed scope of the requirement, applicable to tokens referenced to official currencies and to those referenced to other than official currencies where the reserve of assets include deposits with credit institutions or reverse repos, and with a different calibration if significant or not, the EBA, following the mandate in Article 45(7)(b), takes into account and differentiates by size, complexity and nature of the reserve assets and of the asset-referenced token itself.

19. The EBA has based its proposed calibration of the relevant percentages of reserve assets that need to mature within the following 1 and 5 working days, on the recent evidence of deposit run-offs in bank related to crypto related activities⁵ and the comparable money market funds Regulation⁶.
20. The EBA has assessed the relevance of a percentage of the reserve of assets maturing or being able to be withdrawn or terminated in the short-medium term beyond 1 or 5 working days. Duration of the reserve assets and subsequent sensitivity to interest rate changes that might trigger volatility related aspects would be addressed here. The shorter the residual contractual maturity of the reserve assets the lower their volatility. The EBA considers that setting a maximum short-medium term maturity in bonds is more related to control interest rate risk rather than to liquidity risk requirements whose further specification is the target of these RTS as established under Article 36(4) of MiCAR. The EBA considers that minimum requirements for other maximum maturities than 1 or 5 working days in the short-medium term in the reserve of assets are not relevant for the purposes of fulfilling redemption requests.

2.2 Determination of the minimum amount of deposits with credit institutions in the case of EMTs or ARTs referenced to official currencies

21. Point (d) of Article 36(4), together with Article 58(1) and (2), of MiCAR establishes that the amount of deposits with credit institutions cannot be lower than 30% of the amount referenced in each official currency, in the case of issuers of ARTs that are not significant or e-money institutions issuing EMTs that are not significant if required by the relevant competent authority. This percentage is 60% for the cases of issuers of ARTs or EMTs that are significant.
22. The EBA considers that an amount of bank deposits in the reserve of assets higher than those percentages of the amount of assets referenced in tokens might trigger concerns from the perspective of the liquidity of the reserve assets overall and their exposure to credit risk. The EBA considers that it is key to keep a relevant amount of the reserve of assets as susceptible to be liquidated in the market and not just with specific counterparties. Furthermore, the interconnectedness between the banking system and crypto-asset sector should be well controlled to avoid reciprocal contagion effects in case of distress of one of them. Therefore, the EBA considers that the minimum amount of bank deposits in the reserve assets should not be set at a higher default level than those percentages of the amount referenced in each official currency.
23. Still on a case-by-case basis competent authorities may require a higher minimum amount of deposits, up to a minimum 60%, in the case of ARTs that are not significant (following Article 35(4) together with Article 45(3) and 45(7)) and in the case of EMTs that are not significant and are issued by e-money institutions (following Article 58(1) and (2) together with Article 45(3) and (7)).

⁵ 20% run off from relevant deposits in one day in the case of Signature Bank ([FDIC'S SUPERVISION OF SIGNATURE BANK](#)).

⁶ Money market funds with stable net asset value are required to hold a minimum 10% of their assets maturing within one day and 30% of their assets within one week. These money market funds are comparable with the least volatile tokens, as referenced to official currencies.

2.3 Overall techniques for liquidity management

24. Token holders are entitled to request at any time the redemption of their tokens by an amount equal to the market value of the assets referenced. Issuer of ARTs and EMTs need to manage the reserve of assets to ensure that the market value of the reserve assets is at least equal at any time to the market value of the assets referenced. Any loss of value of the former relative to the latter need to be covered by the issuer with additional reserve assets (Article 38(4)).

25. MiCAR has specific provisions seeking to ensure that the reserve of assets covers the amount of the assets referenced at any time. The composition of the highly liquid financial instruments shall be made by assets with minimum market risk, credit risk and concentration risk (Article 38(1)). The reserve of assets needs to be managed considering the liquidity risks inherent to the permanent rights of redemption held by the token holders (Article 36(1)(b)).

26. A concern here for the EBA is to mitigate the risk that the amount of the reserve of assets can become lower than the market value of the assets referenced due to various reasons:

- Within the requirements of the reserve of assets under Article 38(1) the EBA considers necessary to mitigate the concentration risk of highly liquid financial instruments, which is part of the mandate to the EBA in the RTS to specify highly liquid financial instruments under Article 38(5), as well as of the deposits with credit institutions in the reserve of assets under the mandate in Article 36(4) in the context of overall techniques for liquidity management.
- Furthermore, under Article 38(1) the EBA deems necessary the mitigation of liquidity and credit risk of highly liquid financial instruments, which is inherent to the RTS specifying them under Article 38(5), but also of bank deposits in the reserve of assets under the mandate in Article 36(4) in the context of overall techniques for liquidity management.
- Article 38(1) also envisages the need to minimize market risk in highly liquid financial instruments for which specific consideration of hedges in place are envisaged in the RTS to specify highly liquid financial instruments under Article 38(5).
- Volatility of the assets referenced, particularly considering the permanent right of redemption by the token holders including during stress scenarios:
 - i. Special consideration here is the inclusion of the financial instruments used as assets referenced, or derivatives relating to them, in the definition of highly liquid financial instruments in the case of ARTs for the part of assets referenced to other than official currencies seeking a minimum correlation. This is envisaged for the relevant draft RTS under Article 38(5).
 - ii. The reserve of assets needs to be managed considering the liquidity risks inherent to the permanent rights of redemption held by the token holders (Article 36(1)(b)). This might encompass voluntary over-collateralisation.
 - iii. Mandatory over-collateralisation of the reserve assets.

27. The EBA proposes the inclusion of the following safeguards in the context of a proper liquidity management of the liquidity requirements of the reserve of assets of issuers of ARTs and EMTs and takes into account the nature, size and complexity of the reserve of assets and of the asset referenced token. These techniques will ultimately target to contribute to the effectiveness in a timely manner of the reserve of assets.

2.3.1 Minimum creditworthiness and liquidity soundness of the credit institutions receiving deposits from issuers of tokens

28. The EBA considers that ensuring a minimum creditworthiness and liquidity soundness of the credit institutions receiving deposits from issuers of tokens will mitigate the credit and liquidity risk of the reserve of assets.

29. In setting minimum requirements to mitigate the liquidity and credit risk of these deposits, the EBA follows an approach to ensure that credit institutions from all EU Member States can be eligible. The EBA considers eligible credit institutions for the purposes of considering deposits in credit institutions in the reserve of assets, those where the issuer has no reason to expect non-performance of the credit institution receiving the deposits – this is based on the eligibility of inflows, including those stemming from deposits, as envisaged in Article 32(1) of the (LCR) Delegated Regulation (EU) 2015/61.

30. This safeguard should be read in conjunction with the requirement established in the RTS specifying the minimum content of the liquidity management policy and procedures under Article 45(7)(b) MiCAR where the issuer needs to assess the creditworthiness of the bank counterparty and ensure that it is in line with its risk appetite and taking into account the final volume of bank deposits in the reserve of assets.

2.3.2 Concentration limits by credit institution receiving deposits

31. The EBA considers that limiting to the issuer of the tokens the amount of deposits in the reserve of assets with the same credit institution contributes to a sound credit and liquidity management.

32. A high concentration of deposits with a limited number of credit institutions shall be avoided to mitigate the risk arising from material interconnectedness between the financial system and the crypto ecosystem. A priori, it might be argued that larger banks might find fewer challenges for additional liquidity resources if needed in case of stress, for example via securitisations, new issuances in wholesale markets, repo markets or others where some minimum infrastructure is needed. Diversification across credit institutions should be complemented with limits to avoid concentration of deposits of the issuer of tokens within the total balance sheet of the credit institution receiving the deposits. This is to mitigate the risk that deposits withdrawal by the issuer to redeem tokens might trigger very material outflows in the credit institution taking the deposits that might ultimately challenge the withdrawal and redemption themselves.

33. The EBA considers that in the application of such concentration limits the issuer shall consider in an aggregated manner, as an only counterparty, the deposits it holds with a credit institution as well as the deposits it holds with all other entities that form part of the group of that credit institution and the deposits it holds with entities with which that credit institution has close links.

2.3.3 Over-collateralisation

34. Ultimately the issuer's reserve of assets at market value aims to ensure the timely redemption of the tokens upon request at any time, including stress periods, by paying in funds the market value of the assets referenced or physical delivery of them. Article 36(7) envisages that the aggregate value of the reserve of assets shall be *at least* equal to the aggregate value of the assets referenced, thus recognizing the possibility of mandatory overcollateralisation. The EBA proposes to include a minimum mandatory overcollateralisation in the context of the techniques for liquidity management of the reserve of assets where the size, complexity and nature of the reserve of assets and of the asset-referenced token itself will be taken into account.
35. The main target of overcollateralisation is to contribute to mitigating market risk in the reserve of assets and the differences between the changes in the market value between the reserve of assets and the assets referenced. It mitigates the risk of a potential de-pegging in tokens referenced to official currencies. De-pegging refers to cases where the parity is lost because of some reputational, solvency or other reasons that make the market value of the token fall below parity, which might trigger massive redemption requests with subsequent damaging consequences to the issuer and the system if redemption cannot be met in time in a proper manner.
36. For these reasons the EBA proposes the inclusion of a mandatory over-collateralisation of the reserve assets to complement, particularly under stress times, the stability mechanism of ARTs and EMTs by contributing to mitigate price volatility risks and subsequent impact. The calibration proposed will only require mandatory overcollateralization in cases where the reserve of assets itself, taking into account its composition, potential voluntary overcollateralization and hedging derivatives, has not proved enough to cover the volatility of the assets referenced.

3. Draft regulatory technical standards

COMMISSION DELEGATED REGULATION (EU) .../...**of XXX****supplementing Regulation (EU) 2023/1114 of the European Parliament and of the Council with regard to regulatory technical standards for further specifying the liquidity requirements of the reserve of assets**

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EU) 2023/1114 of the European Parliament and of the Council of 31 May 2023 on markets in crypto-assets, and amending Regulations (EU) No 1093/2010 and (EU) No 1095/2010 and Directives 2013/36/EU and (EU) 2019/1937⁷, and in particular Article 36(4), fifth subparagraph, and Article 45(7) (b), fourth subparagraph, thereof,

Whereas:

- (1) In the determination of the minimum amount of the reserve of assets maturing in one or five working days, including assets received in reverse repos that can be terminated in one or five working days or deposits withdrawable with a one- or five-working-day prior notice, it is necessary to follow the calibration established in Regulation (EU) 2017/1131 of the European Parliament and of the Council of 14 June 2017⁸ and to draw on the experience of observed empirical crises related to crypto-activities. Such a minimum amount should be calibrated to ensure the ability to meet the redemption requests by token holders at any time, including under stress. Its calibration should take into account the size, complexity and nature of the reserve of assets and of the asset-referenced tokens, and differentiate tokens that are not significant from those that are significant, and which have an higher amount of required deposits in each official currency referenced, as well as crypto-activities with a higher interconnectedness with the financial system or a higher international scope. Conversely, it is unnecessary to introduce other longer maturities requirements to address the same risks.
- (2) It is necessary to take into account the benefits and potential risks that could arise as a consequence of the reserve of assets being potentially made of a large amount of deposits with credit institutions. In order to ensure a proper liquidity management of those deposits, it is necessary to introduce specific techniques for it to mitigate potential risks. Considering the potential material size of this part of the reserve of assets, any failure of the counterparty bank or simply a sudden and large withdrawal of these deposits as a consequence of redemption requests might trigger significant negative consequences to the financial stability. For these purposes, it is necessary to

⁷ OJ L 150, 9.6.2023, p. 40.

⁸ Regulation (EU) 2017/1131 of the European Parliament and of the Council of 14 June 2017 on money market funds (OJ L 169, 30.6.2017, p. 8).

specify liquidity requirements of the reserve of assets in the form of required liquidity management techniques of the deposits held in the reserve of assets.

- (3) The sound management of the reserve of assets dictates that the credit institutions, with whom such reserve assets are deposited, are subject to creditworthiness requirement calibrated in a way that creditworthy credit institutions can be found in any Member State. Sound management should also ensure that token redemption is facilitated and not prevented or hindered. Therefore, adequate diversification must be ensured and concentration limits should be set out. These limits should concern the maximum amount of the reserve of assets that can be deposited in a single credit institution and the threshold should be set both against the total reserve of assets and against the credit institution's total balance sheet. These thresholds are necessary to ensure both that an adequate number of credit institutions can be approached for redemption and that redemption will not be hindered by its potential high impact on a single credit institution's total balance sheet.
- (4) To ensure a sound liquidity management of the reserve of assets, it is necessary to introduce a minimum mandatory overcollateralisation of the market value of the reserve of assets relative to the market value of the assets referenced, with the aim to cover the absence of haircuts in the computation of the highly liquid financial instruments in the reserve of assets, to mitigate the volatility and seek for correlation of the market value of the assets referenced with respect to the reserve of assets. The mandatory overcollateralisation should be calibrated to follow a historical look-back approach, taking into account the size, complexity and nature of the reserve of assets and of the assets referenced by the tokens.
- (5) The minimum amount of deposits with credit institutions to be held in the reserve of assets related to tokens that are not significant and are referenced to official currencies should be kept to 30% of the amount referenced, or to 60% if the token is significant, and not raised any higher, as those percentages represent a good balance between the benefits for a timely redemption of the tokens upon request, and the risk of potential contagion in case of a crisis arising from the interconnectedness between crypto-activities and the financial system.
- (6) Considering that requirements set out in Articles 36 and Article 45(1) to (4) of Regulation (EU) 2023/1114 also apply to electronic money institutions issuing e-money tokens (either significant or, where decided, non-significant), as per Article 58(1), point (a), and (2) of that Regulation, this Regulation should also apply to issuers of e-money tokens that are subject to or required to comply with those requirements.
- (7) There is a need to ensure, without prejudice to the withdrawal of the authorization in accordance with Article 24 Regulation (EU) 2023/1114, that, in cases of deviations from the requirements set out in this Regulation, a plan is promptly submitted to the competent authority as a liquidity management technique.
- (8) This Regulation is based on the draft regulatory technical standards submitted to the Commission by the European Banking Authority.
- (9) The European Banking Authority, in close cooperation with the European Supervisory Authority (ESMA) established by Regulation (EU) No 1095/2010 of the European

Parliament and of the Council⁹ and with the European Central Bank, has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the advice of the Banking Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1093/2010 of the European Parliament and of the Council,¹⁰

HAS ADOPTED THIS REGULATION:

Article 1

Maximum maturities applicable to the reserve of assets related to tokens referencing official currencies

1. For tokens referencing official currencies, the percentage of the market value of the reserve of assets according to daily maturities, including the percentage of reverse repurchase agreements that are able to be terminated by giving prior notice of one working day, and the percentage of cash that is able to be withdrawn by giving prior notice of one working day, to the total market value of the overall reserve of assets shall be the following:
 - (a) at least 40% for significant tokens
 - (b) at least 20% for tokens, which have not been deemed as significant.

2. For tokens referencing official currencies, the percentage of the market value of the reserve of assets according to weekly maturities, including the percentage of reverse repurchase agreements that are able to be terminated by giving prior notice of five working days, the percentage of cash that is able to be withdrawn by giving prior notice of five working days, and the percentage of daily matured assets as referred to in paragraph 1, to the total market value of the reserve of assets shall be the following:
 - (a) at least 60% for significant tokens;
 - (b) at least 30% for tokens, which have not been deemed as significant.

⁹ Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC (OJ L 331, 15.12.2010, p. 84).

¹⁰ Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC (OJ L 331, 15.12.2010, p. 12).

Article 2

Maximum maturities applicable to the reserve of assets related to tokens not referencing to official currencies

1. For significant tokens not referencing official currencies, at least 20% of the reverse repurchase agreements and cash of the reserve of assets shall be able to be terminated or withdrawn by giving prior notice of one working day.

For significant tokens not referencing official currencies, the percentage referred to in the first subparagraph shall be 40%.

2. For tokens not referencing official currencies, at least 30% of the reverse repurchase agreements and cash of the reserve of assets shall be able to be terminated or withdrawn, respectively, by giving prior notice of five working days.

For significant tokens not referencing official currencies, the percentage referred to in the first subparagraph shall be 60%.

The percentages referred to in the first and second subparagraphs shall be calculated including the assets referred to in paragraph 1.

Article 3

Deposits with credit institutions

1. Issuers of asset-referenced tokens referencing official currencies and e-money institutions issuing e-money tokens subject to this Regulation shall hold in their reserve of assets deposits with credit institutions in each official currency referenced by the tokens at least equal to 30% of the amount referenced in each official currency.
2. Issuers of significant asset-referenced tokens referencing official currencies and e-money institutions issuing significant e-money tokens subject to this Regulation shall hold in their reserve of assets deposits with credit institutions in each official currency referenced by the tokens at least equal to 60% of the amount referenced in each official currency.

Article 4

Minimum creditworthiness and liquidity soundness of bank deposit counterparties in the reserve of assets

1. Issuers of asset-referenced tokens, and e-money institutions issuing e-money tokens subject to this Regulation, holding deposits with credit institutions shall have no reason to expect non-performance by the credit institutions taking the deposits, in order to include those deposits in the reserve of assets

2. The assessment referred to in the previous paragraph shall be made for a time-horizon of 365 days for sight deposits, and for time until maturity for the term deposits.

Article 5

Concentration limit by bank deposit counterparty

1. For a deposit within a single credit institution to be included in the reserve of assets, such deposit shall respect the following thresholds:
 - (a) 25% or lower of the market value of the reserve of assets, where that credit institution is identified as either 'global systemically important institution' (G-SII) or other 'systemically important institution' (O-SII) in accordance with Article 131 of Directive 2013/36/EU;
 - (b) 15% or lower of the market value of the reserve of assets, where that credit institution is a large institution as defined in Article 4(1), point (146), of Regulation (EU) No 575/2013 but is not identified as G-SII or O-SII;
 - (c) 5% or lower of the market value of the reserve of assets, where that institution does not fall under (a) or (b) above.
2. For a deposit within a single credit institution to be included in the reserve of assets, such deposit shall not exceed 1.5% of the total assets of that credit institution.
3. The amount of the deposits in a credit institution referred to in paragraphs 1 and 2 together with the market value of highly liquid financial instruments in the form of securities or money market instruments issued or guaranteed by the same credit institution, and the risk exposure to that credit institution in unmargined OTC derivatives, as envisaged in Article 38(1) of Regulation (EU) 2023/1114, shall not exceed 30% of the market value of the reserve of assets referred to the same tokens.
4. For the purposes of the limits envisaged in paragraphs 1, 2 and 3, the deposits with a credit institution, the highly liquid financial instruments in the form of securities or money market instruments issued or guaranteed by the same credit institution, and the risk exposures in unmargined OTC derivatives with that credit institution shall include those deposits placed with, instruments issued by or exposures to all other entities with whom that credit institution has close links.
5. When applying paragraphs 1, 2, 3 and 4, token issuers shall look through to the underlying exposures of collective investment undertakings (CIUs), as defined in Article 4(1), point (7), of Regulation (EU) No 575/2013, whose units are included in the reserve of assets.

Article 6

Mandatory over-collateralisation

1. At any time t , the daily market value of the reserve of assets referred to the same tokens shall meet the following formula:

$$Reserve_Assets_t \geq Assets_Referenced_t \times \left(1 + \max_{s \in I} \left\{ 0; \frac{Assets_Referenced_s - Reserve_Assets_s}{Assets_Referenced_s} \right\} \right),$$

where:

- $Reserve_Assets_t$ is the market value at time t of the reserve of assets referred to the same tokens;
- $Assets_Referenced_t$ is the market value at time t of the assets referenced by those tokens;
- I is any working day in the 5-year period before date t .

Article 7

Managing deviations from liquidity requirements

Without prejudice to Article 24 of Regulation (EU) 2023/1114, where an issuer of asset-referenced tokens, or an e-money institution issuing e-money tokens subject to this Regulation, does not meet all the requirements set out in this Regulation, or where that issuer or e-money institution, or the competent authority have evidence that such requirements are likely to be breached, the issuer or the e-money institution shall prepare a detailed plan, including following a request by the competent authority, and submit it to the authority within five working days.

Article 8

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

*For the Commission
The President*

*[For the Commission
On behalf of the President
[Position]*

4. Accompanying documents

4.1 Draft cost-benefit analysis / impact assessment

1. Following Article 10 of Regulation (EU) No 1093/2010 (EBA Regulation), the EBA shall analyse the potential costs and benefits of the draft Regulatory technical standards (RTS). RTS developed by the EBA shall therefore be accompanied by an Impact Assessment (IA) that analyses ‘the potential related costs and benefits’.
2. This analysis presents the IA of the main policy options included in this final report on the draft RTS further specifying the liquidity requirements of the reserve of assets, which the EBA is mandated to develop under Article 36(4) of Regulation (EU) 1114/2023.
3. Article 36(4) mandates the EBA to establish the percentages of the reserve of assets with maximum maturities of 1 working day and 5 working days, including the reverse repos that are able to be terminated and the cash that can be withdrawn in those tenors. The EBA has assessed the calibration approach to determine these percentages. In addition to this, the EBA is mandated to assess the establishment of other relevant maturities. The EBA has also analysed the relevance or need to add other minimum percentages of reserve assets with other maturities in the short-medium term beyond 5 working days.
4. Furthermore, Article 36(4) mandates the EBA to establish overall techniques for liquidity management. The EBA has assessed here the convenience of introducing specific techniques in the RTS to be applied by issuers of tokens that would cover specific risks in the reserve of assets and that would result in a sound liquidity management of the reserve of assets. The techniques proposed include in particular:
 - techniques to ensure minimum liquidity soundness and credit quality in the counterparties of the deposits with credit institutions in the reserve of assets.
 - techniques to ensure a maximum concentration limit by counterparty of deposits with credit institutions in the reserve of assets.
 - techniques to ensure a minimum overcollateralization. It intends to cover the risk that the market value of the reserve of assets cannot cover the market value of the assets referenced for the purposes of meeting redemption request by the token holders at any time. This risk is very much related to the volatility of the reserve assets and assets referenced if not sufficiently correlated. In this context is also covers the absence of the haircuts to the highly liquid financial instruments. Its calibration follows to a great extent the regulatory framework for similar aspects

in the money market funds and also the experience observed in banking crisis stemming from crypto activities.

4.1.1 Maximum 1 and 5 working days maturities for minimum percentages of the reserve of assets

5. The EBA has assessed two policy options for the calibration of those percentages:

- Policy option A: To specify the minimum percentages based on the evidence experienced in banks' run-off cases from deposits stemming from crypto activities as well as considering comparable regulatory frameworks with similar safeguards like the Regulation¹¹ on money market funds.
- Policy option B: To describe the general lines of an approach where ultimately the calibration of the percentages should be made by the issuer. The percentages would be based on its particular historical observations and estimated following 99% confidence intervals relative to the average redeemed amount in the worst 1 and 5 working days in terms of gross outflows.

	Advantages	Disadvantages
Policy option A	<p>On the one hand it builds on recent bank related data of experienced deposits run-off related to crypto activities in the referenced periods of time (1 and 5 working days).</p> <p>Second, the Regulation on money market funds envisages specifically the percentages of their assets that need to mature on a daily and weekly basis for liquidity soundness purposes. This serves as a comparable framework considering the similarities between the business activities of money market funds and tokens' issuers.</p> <p>This approach takes into account the type of token (significant vs</p>	<p>There is a need to somehow adjust the observed cited deposits run-off and regulatory framework of money market funds to differentiate between significant and non-significant tokens.</p>

¹¹ Regulation (EU) 2017/1131

	<p>non-significant), reserve of assets (only applicable to tokens referenced to official currencies, with material amount of deposits), size and complexity (again differentiation between significant and non-significant).</p>	
	<p>This approach does not pose any operational burden for issuers as regards the calibration of the percentages of the reserve of assets maturing within 1 or 5 working days.</p>	<p>The calibration is not subject to an ongoing update based on the reality of stressed redemption outflows that evidence might show overtime for a specific issuer. However, taking into account the relevance of this aspect to avoid any liquidity distress in the issuer, the general crypto market and the interconnected global financial system the Guidelines on liquidity stress testing under Article 45(8) MiCAR might include, along the lines proposed under policy option 2, the need for the issuer to assess expected potential withdrawals under stress of the deposits placed in credit institutions, or termination of reverse repos, within 1 or 5 working days beyond the percentages established in these RTS for potential strengthening of the liquidity requirements.</p>
Policy option B	<p>Consideration of specificities of the issuer is made since it is an analysis to be run on a case-by-case basis: token type, reserve of assets, size, complexity, as required in the mandate.</p>	<p>Lack of experience and time series data that could underestimate the necessary amount maturing up to 1 or 5 working days during at least the first years of functioning of the issuer.</p>
	<p>Ongoing update aligned to the current circumstances of the experience of the issuer and the crypto system.</p>	<p>Operational burden for issuers for its calibration every day.</p>

6. The EBA has opted for option A to specify the relevant percentages of reserve assets that need to mature within the following 1 and 5 working days. The EBA builds its proposed calibration, 20% of the reserve of assets maturing within one working day and an additional 10% of the reserve of assets maturing within 5 working days, on the recent evidence of deposits run-off in a bank stemming from crypto related activities¹² and on the comparable money market funds Regulation¹³. For significant tokens, with a higher interconnectedness to the financial system and subsequent higher contagion risk, where the minimum amount required of deposits with credit institutions is 60% of the assets referenced in each official currency (versus 30% in the tokens that are not significant) those percentages are proposed to be proportionately increased to 40% and 20% for maturities within one working day and 5 working days to ensure the effectiveness of the full amount of the deposits for a timely redemption of the token upon request, including under stress periods.

4.1.2 Other relevant maturities

7. The EBA has considered two policy issues:
- Policy issue I: the possibility to ensure a maximum maturity of 1 or 5 working days to a minimum percentage of deposits with credit institutions or reverse repos in the case of tokens that are not referenced to official currencies.
 - Policy issue II: the possibility to implement other longer than 1 or 5 working days maximum maturities to a minimum percentage of the reserve of assets.

Policy issue I

8. The EBA has assessed two alternatives:
- Policy option A: to expand the application of the minimum percentages of the reserve of assets maturing within 1 or 5 working days in tokens referenced to official currencies to other tokens but relative to the amount of the deposits with credit institutions or reverse repos in the reserve of assets.
 - Policy option B: to keep the minimum percentages of the reserve of assets maturing within 1 or 5 working days for tokens referenced to official currencies only.

¹² 20% run off from relevant deposits in one day in the case of Signature Bank ([FDIC'S SUPERVISION OF SIGNATURE BANK](#)).

¹³ Money market funds with stable net asset value are required to hold a minimum 10% of their assets maturing within one day and 30% of their assets within one week. These money market funds are comparable with the least volatile tokens, as referenced to official currencies.

	Advantages	Disadvantages
Policy option A	<p>It ensures that the deposits with credit institutions or reverse repos in the reserve of assets of tokens referenced to other than official currencies can be withdrawn or terminated in the very short term to be able to meet redemption requests at any time in a prompt manner, even under stress, and avoid potential subsequent worse consequences that could arise from a failure to redemption in time, e.g. massive redemption request arising and potential systemic risk to the rest of tokens issuers and the financial system.</p>	<p>It might be argued that this requirement is only necessary for tokens referenced to official currencies where deposits with credit institutions are material since required to amount to at least 30% (or 60% if the token is significant) of the assets referenced.</p>
	<p>Incentivises issuers to seek for a replica in the reserve of assets (e.g. token referenced to gold) with respect to the asset referenced in the case of tokens that are not referenced to official currencies. These tokens are a priori expected to be exposed to a higher volatility in the assets referenced and to a lower correlation between the assets referenced and the reserve of assets unless the latter replicates to a minimum extent the former one.</p>	<p>Correlation between market volatility of the reserve of assets and assets referenced other than official currencies might be argued to be able to be achieved via other instruments, e.g. hedging derivatives, without the need to set additional requirements.</p>
Policy option B	<p>Focusing on tokens referenced to official currencies, where a material amount of deposits is required, is enough to cover the</p>	<p>This risk would not be covered for potential cases where the reserve of assets of tokens referenced to other</p>

	main risk arising from a potential maturity gap between deposits or reverse repos and any redemption request of tokens	than official currencies would include deposits or reverse repos.
	Further operational and regulatory burden for tokens where expectedly the deposits or reverse repos might be non-material.	Still proportionality applies since the requirement of minimum percentages apply to the amount of the deposits or reverse repos. Therefore it applies in a proportionate manner and even in the absence of them this requirement does not apply to tokens referenced to other than official currencies.

9. The EBA has opted for Policy option A. From a prudential point of view it is crucial to ensure not only that the amount of the reserve of assets is at least equal to the value of the assets referenced, as required by MiCAR, but also that it is effectively available at any time for the redemption of the tokens. This applies for all tokens where the reserve of assets include deposits with credit institutions or reverse repos.

Policy issue II

10. The EBA has assessed two alternatives:

- Policy option 1: To require a minimum percentage of the reserve of assets to have a maximum maturity in the short/medium term, beyond 5 working days.
- Policy option 2: To not require a maximum short/medium maturity for a part of the reserve assets.

Advantages

Disadvantages

	Advantages	Disadvantages
Policy option 1	To make the portfolio less sensitive to interest rate changes and, thus, expect lower volatility. This helps to reinforce stability in the market value of the reserve assets.	A short-medium term maximum required maturity is more related to interest rate mitigation tools rather than to liquidity risk in the short term in case of a material and sudden redemption request, including stress test periods. The interest rate risk might be covered with derivatives, for example, without the need to

		impose short-medium term maturities.
	To ensure diversification of the composition of the reserve assets by time maturity buckets and, thus, different market liquidity features depending on maturities.	The risk of setting too many restrictions for the eligibility of highly liquid financial instruments, particularly in the case of tokens referenced to other than official currencies.
Policy option 2	To provide more flexibility to issuers in the development of their business models. Setting additional maturity limits might trigger unnecessary lower yield in short-medium term reserve assets when related risks might be covered with derivatives.	The risk of having a reserve of assets with long term maturity subject to higher risks.
	Operational challenges to calibrate other maturities for the reserve of assets that are not linked to the need to ensure redemption of tokens at any time.	A higher residual maturity on average for the portfolio, in the absence of further maturity constraints, is an indicator generally of lower market liquidity in the portfolio.

11. The EBA has opted for policy option 2 and not to introduce additional maturity constraints to the reserve assets at the moment. The risk of constraining the issuer's business models seems higher than the risk that would be controlled with these restrictions which, on the other hand, can be mitigated via derivatives.

4.1.3 Minimum creditworthiness and liquidity soundness in deposits in credit institutions in the reserve of assets

12. The EBA has assessed the following two alternatives:

- Policy option A: to require no expectation of non-performance from the bank receiving the deposits to seek for minimum creditworthiness and liquidity soundness in the deposits with credit institutions.
- Policy option B: No minimum requirements

	Advantages	Disadvantages
Policy option A	<p>To mitigate credit risk and liquidity risk with respect to the deposits with credit institutions in the reserve of assets.</p> <p>With this approach the risk of failure to repay the deposit in time is mitigated. This is important to ensure that redemption to token holders upon request at any time, including under stress, can be met and mitigate the risk to expanding the risk of default to the financial stability.</p>	<p>The approach might trigger operational issues since a change in the creditworthiness expectations of a bank counterparty making it become ineligible would trigger the need of a change in the composition of the deposits by counterparties.</p>
Policy option B	<p>A minimum creditworthiness is not necessary to be required for deposits to be eligible since it is implicit in the solvency requirements of the banks and thus all bank complying with solvency requirements should be eligible.</p>	<p>Compliance with solvency requirements does not avoid potential failure to repay in time those deposits particularly under stress times. To recall that redemption of tokens as requested by holders needs to be met at any time in a prompt manner. Ensuring a minimum creditworthiness mitigates at least partially counterparty credit risk. A similar approach is envisaged in the LCR for the recognition of inflows. A related analysis of the creditworthiness of the bank counterparty is also envisaged in the minimum content of the liquidity policy management of issuers of tokens as proposed for the RTS to specify this minimum content under Article 45(7)(b) MiCAR.</p>

13. The EBA has opted for option A since the need to provide mitigating tools to the liquidity and credit risk in the deposits with banks prevails versus potential higher costs/operational issues.

The interconnectedness between the banking system and crypto activities requires to implement prudent approaches of this kind to avoid any expansion of any risk to the financial system.

In order to make this approach more pragmatic and easier to implement the EBA proposes that the creditworthiness analysis should encompass the relevant residual maturity for term deposits and 365 days for sight deposits.

4.1.4 Concentration limits by counterparty of deposits in credit institutions in the reserve of assets

14. The EBA has assessed the following two alternatives:

- Policy option A: To include concentration limits by deposit counterparty.
- Policy option B: to not include concentration limits by deposit counterparty.

	Advantages	Disadvantages
Policy option A	If highly concentrated, any failure to payment in time, by one or two banks for example, would challenge the timely redemption of tokens with subsequent implications in the reliability of the token as a means of payment and in the whole crypto ecosystem. This could trigger potential expanded effects to the whole financial system if the stress is transferred to holders of other tokens or if the funding of the deposit taking institution is highly concentrated by deposit stemming from the same issuer in case it needs to face significant redemption requests.	This requirement, together with a minimum credit quality and liquidity soundness in the deposits taking institutions, might require higher operational and economic efforts for the issuers of tokens to identify eligible credit institutions as counterparties taking into account that the issuers, as established in the RTS on the minimum content of the liquidity risk management policy and procedures under Article 45(7)(b) MiCAR, need to develop and include in the liquidity risk management policy the assessment of the creditworthiness of each credit institution where the issuer of tokens hold deposits within the reserve of assets.
	The calibration takes into account the UCITs framework with reinforced limits considering the	A higher diversification requirement with reinforced concentration limits might also bring concerns if the

	<p>specificities of tokens where deposits are expected to be a material component of the reserve of assets. Stricter limits envisaged are considered for the cases of smaller banks receiving deposits due to potential higher challenges to access additional liquidity resources if needed under stress (e.g. repo markets or wholesale markets in general) to mitigate any challenge around the effectiveness of the deposits.</p>	<p>selection of the deposit taking institutions is based on other criteria (like higher remuneration to compensate higher related operational costs) than the pure optimisation of their creditworthiness and liquidity soundness.</p>
Policy option B	<p>To allow for holding as much amount of deposits as the issuer may consider necessary with the same credit institutions since these could be the most reliable institutions among the available ones.</p>	<p>Diversification is generally accepted as a sound technique to ensure a good risk management, and mainly in the case of liquidity risk.</p> <p>Concentrating the deposits in some limited counterparties might have a very detrimental impact in the financial stability in case of failure to repay in time by the bank.</p>
	<p>These restrictions might impact business opportunities for the issuer or sources of higher yield.</p>	<p>Deposits with credit institutions are a material part of the tokens referenced to official currencies and ensuring a prompt redemption of token holders and to safeguard the robustness of the financial system and crypto eco-systems are a priority.</p>

15. The EBA has opted for option A. The EBA finds the implementation of concentration limits by deposit counterparties crucial. The EBA considers that ensuring prompt redemption of tokens is key to protect holders' rights as well as to avoid any risk to expand concerns on the financial system and crypto ecosystems, particularly considering the strong interconnectedness between them. The UCITs framework envisages that the deposits with the same bank shall not be more than 20% of the UCITs assets. The EBA, taking into account the specificities and risks inherent to crypto activities, sets the concentration limit by deposit counterparty at 25% of the reserve of

assets of the issuer of the tokens if the bank receiving the deposit is identified as either 'global systemically important institution' (G-SII) or other 'systemically important institution' (O-SII), at 15% if the bank is a large institution but is not identified as G-SII or O-SII, and at 5% for other than large institutions. At the same time the EBA considers that the deposits with the same credit institution should not exceed 1.5% of the total balance sheet of the credit institution taking the deposits.

4.1.5 Mandatory overcollateralisation

Overcollateralisation – risks covered

16. Overcollateralisation seeks to mainly cover the market risk of the reserve of assets, rather than via haircuts on the wide definition of the specified highly liquid financial instruments, and mainly differences in the market value volatility between the reserve of assets and the assets referenced to ensure the effectiveness of the reserve assets to meet any redemption request by token holders at any time included under stress. Overcollateralisation also mitigates the risk of a potential de-pegging where the parity in tokens referenced to official currencies might be lost because of some reputational, solvency or other related reasons that result in the market value of the token be below parity potentially triggering massive redemption request with subsequent damaging consequences to the issuer and the system if redemption cannot be met in time in a proper manner.

Overcollateralisation - calibration

17. Article 36(4) MiCAR mandates the EBA to develop draft RTS further specifying the liquidity requirements of the reserve of assets for which the EBA shall take into account the size, complexity and nature of the reserve of assets and of the asset-referenced token itself. In particular the mandate refers to the establishment of overall techniques for liquidity management. The EBA proposed to include a minimum mandatory overcollateralisation in the context of the techniques for liquidity management of the reserve of assets. Article 36(7) envisages that the aggregate value of the reserve of assets shall be at least equal to the aggregate value of the assets referenced, thus recognizing the possibility of overcollateralisation.

18. The EBA is working on two different approaches or policy options:

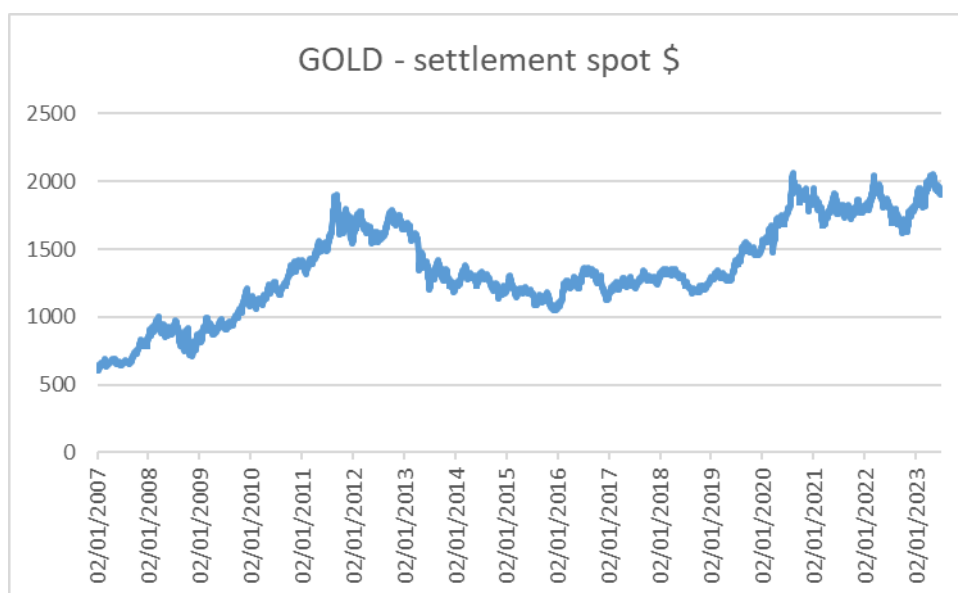
- Policy option 1, where the calibration of the mandatory overcollateralisation builds on a historical look back approach whose methodology is established in the RTS and to be applied by the issuer.
- Policy option 2, where the RTS would provide a specific quantitative calibration of the mandatory overcollateralisation.

Policy option 1 – Historical look back approach (HLBA)

19. A dedicated article in the RTS would establish the methodology to be applied by the issuer. The target is that the market value of the reserve of assets is always at least sufficient to cover the liabilities against token holders considering the highest positive difference between the market value of such liabilities (market value of assets referenced) and the market value of the reserve of assets any day over the previous 5 years. Overcollateralisation ultimately targets to cover differences in the market value changes of the assets referenced with respect to the market value changes of the reserve of assets taking into account hedging derivatives.

20. A daily calculation responds to the required daily computation and compliance with minimum reserve of assets.

21. The consideration of 5 years seems consistent and justified with the observed tendency of larger changes in the market value of the more volatile assets referenced like gold, for instance.



22. We see the largest increase in the market dollar value of gold between 2007 and 2012/2013 and between 2018-2019 and 2023. If unhedged and without over-collateralisation such increases would pose a risk to the viability of the token.

23. This approach would be implemented by the issuer of the token and therefore would take into account directly the type of token, reserve of assets, size and complexity as indicated in the mandate to the EBA.

24. The following section shows an impact assessment of this HLBA to estimate the effort that issuers might need to make to cover over-collateralisation on the basis of some theoretical and extreme cases. This effort seems to be manageable.

Impact assessment of Policy option 1 (HLBA)

25. The table below summarizes the results from an exercise simulating the overcollateralisation rules proposed above, using 9 different scenarios (based on 5 theoretical tokens): four with EMTs referencing official currencies (they intend to replicate the most volatile options with the minimum required deposits and the maximum amount of covered bonds allowed), and five with an ART referencing gold (with different shares of gold in the reserve of assets).

26. The following tokens were considered:¹⁴

- Significant EMT referencing EUR, backed by EUR denominated deposits (60%), sovereign bonds (5%), and covered bonds (35%)
- Non-significant EMT referencing EUR, backed by EUR denominated deposits (30%), sovereign bonds (35%), and covered bonds (35%)
- Gold referencing token, backed by 50% gold reserves, 50% sovereign bonds (in USD to match the currency of gold pricing)
- Gold referencing token, backed by 70% gold reserves, 30% sovereign bonds (in USD to match the currency of gold pricing)
- Gold referencing token, backed by 100% gold reserves

27. This simulation takes into account the changes observed in the market value of different assets referenced and reserve of assets. It should be noted that the outcome should be read without taking into account hedging derivatives that issuers might have in place to mitigate differences in the volatilities between them.

28. It is assumed that all the abovementioned tokens were issued on 30/06/2018. The required overcollateralization is calculated in absolute terms as the maximum difference between the price of the reference assets and the price of the original reserve of assets, which on 30/06/2018 match and diverge thereafter. It is then expressed in percentage relative to the value of reference assets (as shown in the Table below column 5). For all the scenarios (except one – the case of the gold backed token) the difference in value between reference and reserve of assets was calculated based on 1 day and based on 5-day difference (column 4), making a total of 9 scenarios. In the latter case, the difference is measured as the differences between the maximum value of reference assets within a 5 working days range, and the minimum value of the reserve of assets within the same 5 days range (expressed as a share of the maximum value of reference assets within the 5 working days range).

¹⁴ Covered bond prices are based on iBoxx € Covered index; Eurozone sovereign bond prices are based on iBoxx € Eurozone 1-3 index (which includes sovereign bonds with a maturity between 1 and 3 years); Treasury bills prices are based on the Merrill Lynch 1 Year T-Bill Note Index. Due to data availability, the maturity of Eurozone sovereign bonds index and that of the US T-bills are not exactly matched to ensure comparability, but were chosen in such a way that their maturity is as close as possible.

29. The daily additional reserves (column 6) refer only to the top up required in order to fulfill the requirements, considering that the reserves from the previous day already include overcollateralisation.

Table 1: Summary results

Token (1)	Reference assets (2)	Reserves (3)	Time range for calculating the difference in value of reference vs reserve assets (4)	Daily required OC (based on maximum difference over past 5 years) as percentage of reference asset value (from date of issue) (5)			Daily additional reserves required (from date of issue) (6)		
				Average	Min	Max	Average	Min	Max
Significant EMT	100% official currency (EUR)	currency deposits (60%), sovereign bonds (5%), and covered bonds (35%)	1 day	1.7%	0.2%	6.3%	0.0%	-0.4%	0.7%
			5 day	1.7%	0.2%	6.3%	0.0%	-0.4%	0.7%
Non-significant EMT	100% official currency (EUR)	currency deposits (30%), sovereign bonds (35%), and covered bonds (35%)	1 day	3.3%	0.3%	10.3%	0.0%	-0.7%	0.9%
			5 day	3.3%	0.3%	10.3%	0.0%	-0.7%	0.9%
Gold backed token (50% gold reserves)	100% gold	50% gold, 50% sovereign bonds (USD)	1 day	14.0%	7.8%	17.6%	0.0%	-2.8%	2.2%
			5 day	17.0%	9.6%	21.3%	0.0%	-2.3%	2.3%
Gold backed token (70% gold reserves)	100% gold	70% gold, 30% sovereign bonds (USD)	1 day	8.4%	4.7%	10.6%	0.0%	-1.5%	1.2%
			5 day	12.8%	7.9%	15.7%	0.0%	-1.2%	1.5%
Gold backed token (100% gold reserves)	100% gold	100% gold	NA	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

Note: Covered bond prices are based on iBoxx € Covered index; Eurozone sovereign bond prices are based on iBoxx € Eurozone 1-3 index (which includes sovereign bonds with a maturity between 1 and 3 years); Treasury bills prices are based on the Merrill Lynch 1 Year T-Bill Note Index (S&P Global).

30. The results show that for significant EMTs the overcollateralisation required (based on the maximum difference between prices of reference assets and reserve assets over the past 5 years) will range between 0.2% and 6.3% of the value of reference assets (Chart 1). Since the reserves will generally be overcollateralised most of the times, the issuers will only need to top up the reserves with the difference. For the case of significant EMT, this difference will range between -0.4% (i.e. a decrease in required reserves) and 0.7% of the value of reference assets (Chart 2).

31. For non-significant EMTs, where the currency deposits are 30% (minimum required based on (MiCAR), the maximum overcollateralisation and additional reserves required increase by a third.

32. It is to be noted that in both cases the additional required reserves are zero on average, as it takes into account the price changes that lead to a decrease in reserve requirements also. Moreover, there is no material difference in the overcollateralisation required, whether the time range for calculating the difference between the value of reference and reserve assets is 1 day or 5 days.

Figure 1. Significant EMTs: Overcollateralisation based on maximum price difference of past 5 years, with difference calculated over 1 day (as percentage of reference asset value)

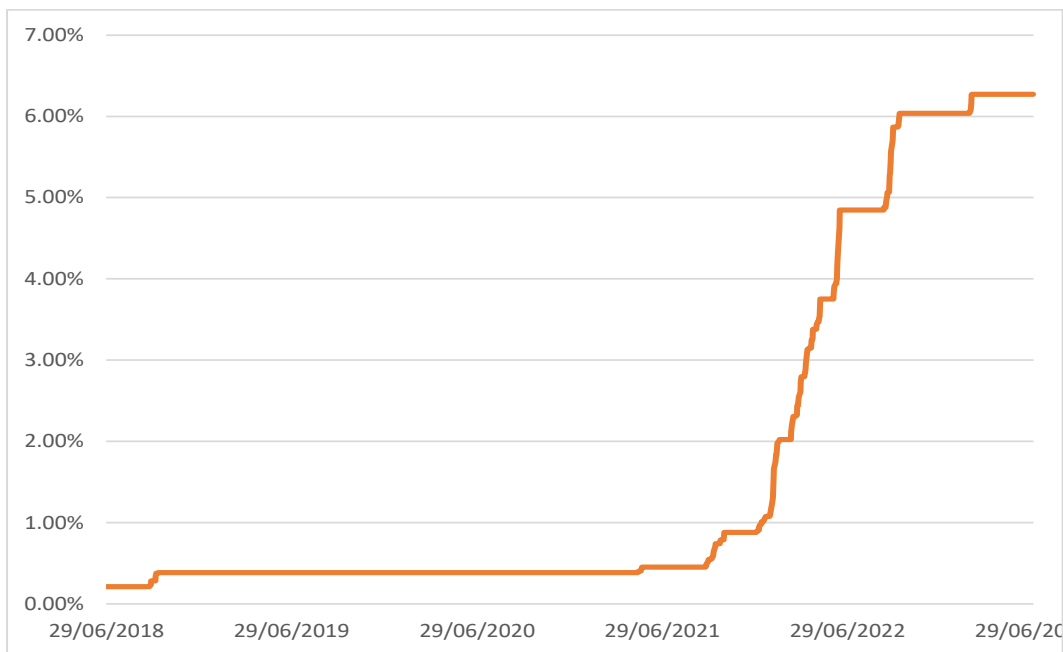
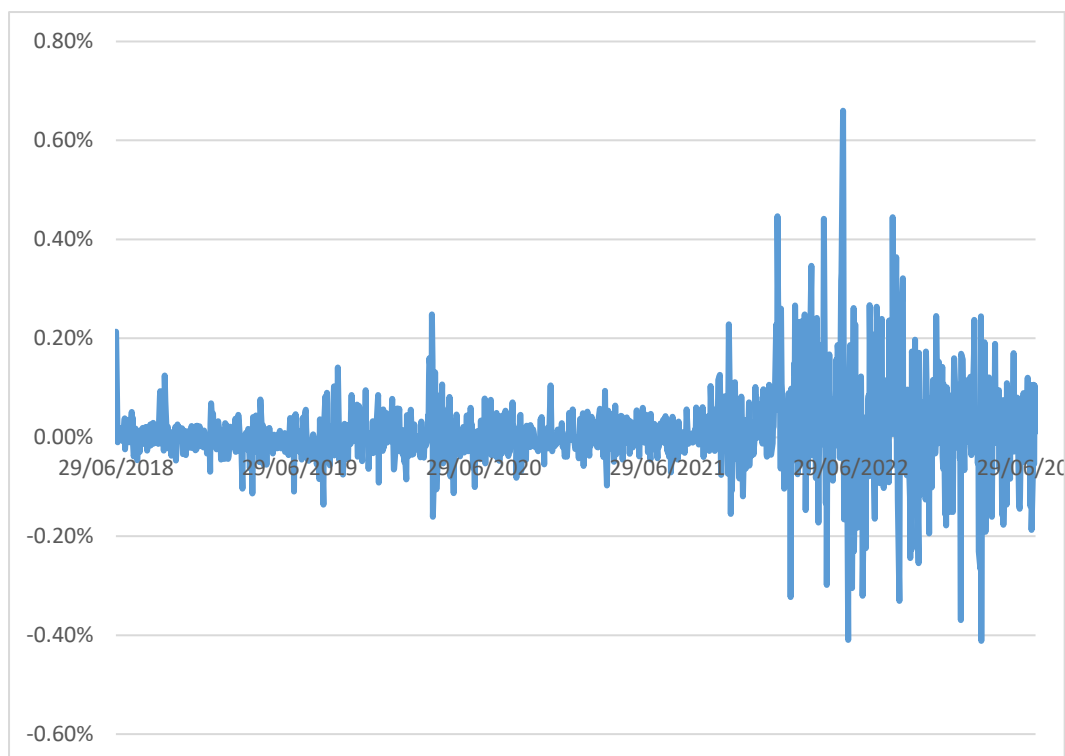


Figure 2. Significant EMTs: Additional daily reserves required with difference calculated over 1 day (as percentage of reference asset value)



33. In the case of gold tokens backed by a combination of gold and sovereign bond reserves, the ranges increase, as expected, with highest overcollateralisation requirements shown in the case of the token with lower share of gold in the reserve of assets. The overcollateralisation reaches 11% and 18% of reference assets for the gold token backed by 70% and 50% of gold respectively, where the difference in values of reference and reserve assets is based on a 1 day window. If the difference is based on a 5-day window, the maximum overcollateralization increases to 16% and 21% respectively. The daily changes in reserves are higher than for EMTs backed by official currencies. However, in the case of commodity tokens it has to be noted that these differences do not always need to materialize in an actual change of reserves, as some of it already comes from the change in the daily volatility in value of the reserve assets. A particular case in this regard is the case of a gold token backed by 100% gold reserves (last scenario).¹⁵ In this case the overcollateralisation is 0% and no additional changes to reserves are required, as the value of the reserve of assets follows exactly the value of the reference assets.

34. The graphs of the evolution of over-collateralization and additional daily reserves required for gold tokens backed by 50% gold are shown in Figure 3 and 4.

¹⁵ So far, the major gold tokens are backed 100% by gold reserves (Tether gold and Paxos gold)

Figure 3. Gold tokens (50% backed by sovereign bonds): Overcollateralisation based on maximum price difference of past 5 years, 5 days window (as percentage of reference asset value)

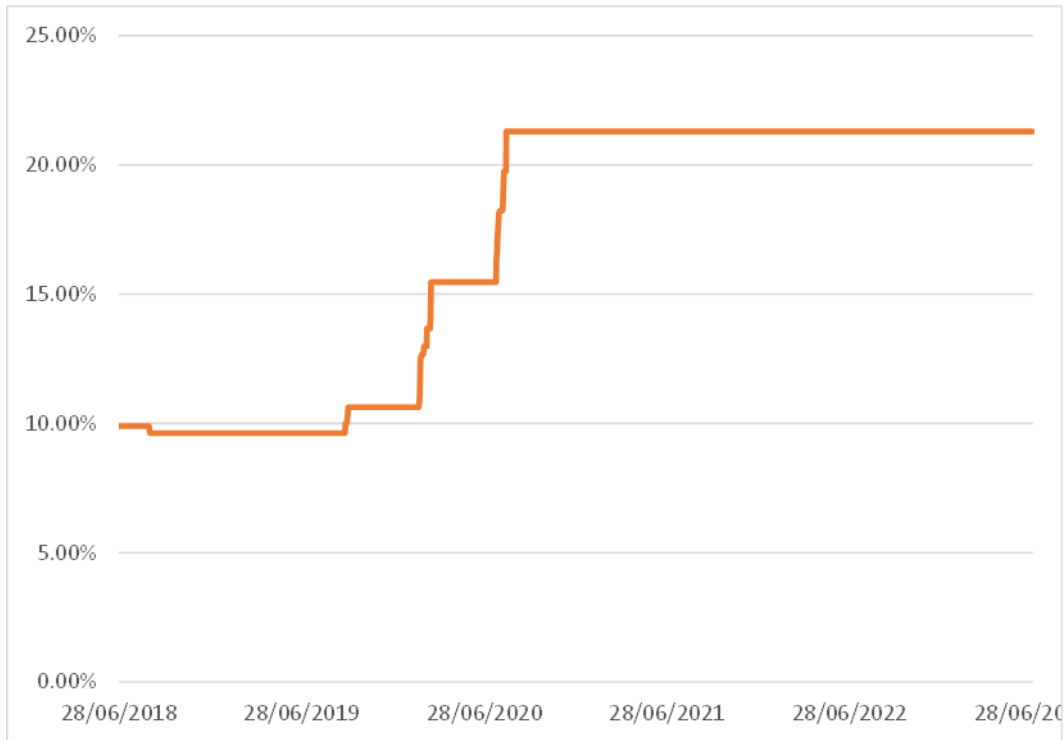
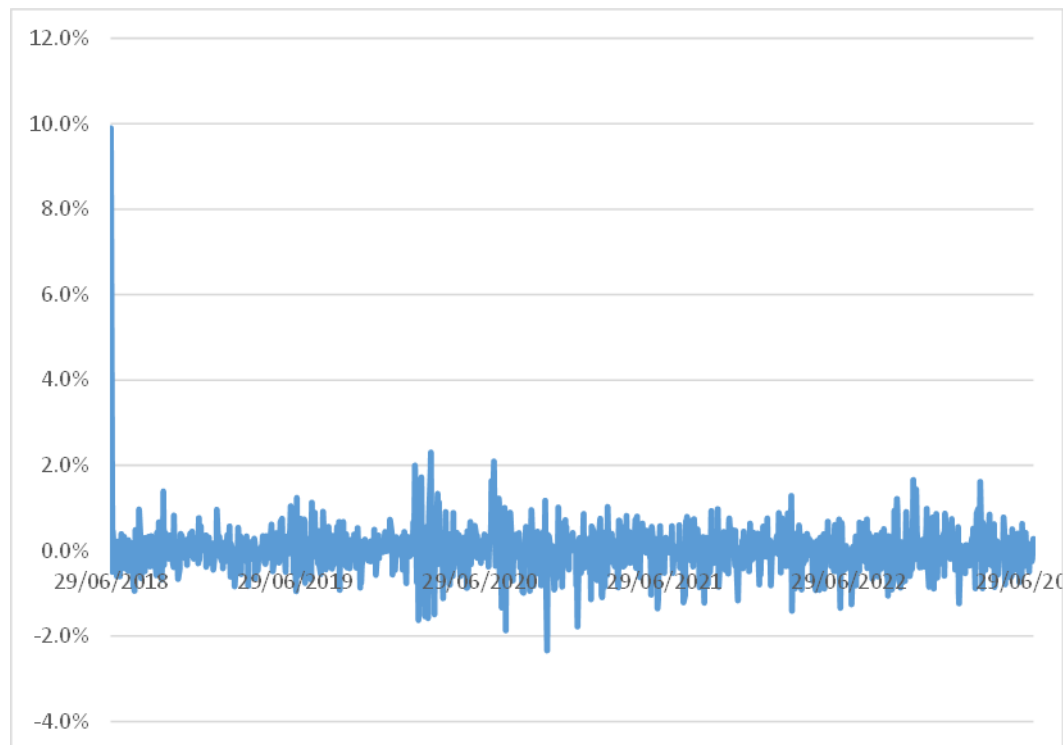


Figure 4. Gold tokens (50% backed by sovereign bonds): Additional daily reserves required (as percentage of reference asset value)



Policy option 2 – specific calibration in the RTS

Tokens referenced to official currencies

35.Features:

- Reserve of assets: assets received and retained (e.g. deposits with banks (min 30% or 60%)), sovereigns and covered bonds (max. 35%)
- Assets referenced: official currencies

36.In these tokens the volatility comes from covered bonds mainly. These are subject to a 7% haircut. Covered bonds are capped at 35% of the reserve of assets. Deposits are at least 30% (or 60% if the token is significant).

37.In addition, de-pegging risk should be considered for which the volatility of the market value of tokens referenced to official currencies versus the asset referenced (official currency itself) should be taken into account.

38.All in all a rough approximation taking into account these elements might lead to an expected overcollateralisation around the levels of between 3% - 5%.

Tokens referenced to other than official currencies.

39. Features:

- a. Reserve of assets: assets received and retained (e.g. gold, deposits with banks), sovereigns and covered bonds (max. 35%), assets referenced.
- b. Assets referenced: any financial instrument or combination of them, index references, commodities...

40.If the reserve of assets fully replicates the assets referenced, the minimum over-collateralisation for tokens referenced to official currencies might be simply kept for the cases where this replica is synthetic to cover the tracking error.

41.If there is no replication, the volatility of commodities (probably the most volatile asset referenced) would need to be assessed and estimated based on the one proposed for tokens referenced to official currency. For example, if the volatility of commodities is two times the volatility of securities in EMTs (mainly covered bonds) then we might go for an over-collateralisation of between around 6% - 10% (if a 3% - 5% is used for EMTs).

4.1.6 Pros and cons of Policy option 1 versus Policy option 2

	PROS	CONS
Policy option 1 (HLBA)	Full harmonisation in the determination of the approach to follow by all. A HLBA is also used to LCR additional outflows from derivatives.	Might not be based on stress times. However this would be complemented by the liquidity stress testing which is based on expectations for stress scenarios.
	Takes into account specificities based on token type, assets referenced, complexity, size.	There might be some risk of optimisation. However, the approach is quite specific and easy to review by supervisors. De-pegging risk is captured in the liquidity stress testing.
	Subject to review on an ongoing basis	Risk of procyclicality.
	Application subject to maximum harmonisation	Potential risk of a non-accurate calibration (not too

Policy option 2 (specific calibration)	since a specific number applies.	much data of experience) but more based on approximations.
	Covers all risks described including de-pegging risk with some add-on.	Specificities are not considered but for some approximations by token type and assets referenced
	Lower operational burden for the issuer	Calibration updates subject to regulatory reviews.

42. The EBA has opted for policy option 1 with 1 working day windows during the previous 5 years as observation periods of the differences between the market value of the reserve of assets and the assets referenced. The EBA considers that the use of 5 working day windows might lead to unintended results if the volume of tokens in circulation would change significantly within a 5 days window due to new issuances/redemptions. Indeed, for example, the case could happen that the maximum market value of the assets referenced might be referred to day 5 after a significant issuance of tokens, whereas the minimum value of the reserve of assets could be much lower and correspond to day one when the volume of tokens in circulation was materially lower before the cited new issuances. Comparison of market values between the reserve of assets and the assets referenced should be referred to the same tokens in circulation. Therefore, the EBA opts for 1-day windows to be considered during the previous 5 years. The approach does not seem more operational burdensome than 5-day windows since the necessary data base is the same. This approach ensures an ongoing analysis of the necessary reserve of assets to cover any redemption request under stress. The approach takes into account all specificities of each token, asset referenced, complexity and size. Procyclicality is controlled since the overcollateralisation is defined in relative terms to be compared over time.

4.2 Feedback on the public consultation

The EBA publicly consulted on the draft proposal contained in this paper.

The consultation period lasted for three months and ended on 8 February 2024. 10 responses were received, of which 7 were published on the EBA website.

This paper presents a summary of the key points and other comments arising from the consultation, the analysis and discussion triggered by these comments and the actions taken to address them if deemed necessary.

In many cases several industry bodies made similar comments, or the same body repeated its comments in the response to different questions. In such cases, the comments, and EBA analysis are included in the section of this paper where EBA considers them most appropriate.

Changes to the draft RTS have been incorporated as a result of the responses received during the public consultation.

Summary of key issues and the EBA's response

Broadly, respondents support the draft RTS further specifying the liquidity requirements of the reserve of assets Article 36(4) MiCAR. Some comments and concerns are raised though that are addressed in the following feedback table. Particularly concerns are raised with regards to the calibration of concentration limits by deposits counterparty and of over-collateralisation requirements. Clarification of some aspects is also requested. The EBA has taken into account and assessed the comments received.

The EBA has reflected on the concerns raised by many respondents as regards the concentration limits by deposit counterparty. Diversification is key here. However, the EBA takes into account the feedback received as regards the lack of willingness from credit institutions, particularly the larger ones, to take deposits from tokens' issuers. The EBA also takes note of the feedback received that tokens' issuers would be very much confined, against this background, to have to access to credit institutions that might be considered a priori less prepared to ensure full redemption if needed under a scenario of stress, since these would be the willing ones to accept these deposits. The EBA, with the aim to facilitate compliance with diversification requirements of the mandatory deposits while ensuring a minimum diversification, has reduced the minimum number of banks across which to diversify the deposits. This is particularly focused on laxer limits when it comes to deposits with larger banks.

The EBA has also taken into account the feedback received about the calibration of the mandatory overcollateralization. Its main objective is to seek for a correlation between the volatilities of the market value of the reserve of assets and the market value of the assets referenced, including scenarios of stress. In the application of the 5 years historical lookback approach proposed, the EBA suggests now looking at these differences within each day during that period of time, rather than at the highest difference between the two market values for all consecutive periods of 5 days. This

is in order to avoid situations where comparisons between different volumes of tokens in circulation during those periods of 5 days could lead to unintended results.

The EBA assessed the request to provide clarification on the process to follow in the case of breach of any requirement in this Regulation, like for example concentration limits by deposit counterparty. The EBA has assessed that in these cases potential unintended consequences, like for example potential deposits run-off, could be triggered if the issuer might decide to promptly withdraw a material amount of deposits with a single bank to return to compliance. The EBA has considered necessary to introduce here some regulatory provisions to ensure that a prompt communication with the relevant supervisory authorities will take place in these cases to seek for an appropriate plan to remedy that situation and avoid any potential unintended consequence.

The EBA is providing clarification to aspects like the expected analysis of creditworthiness and liquidity soundness towards the deposits taking institutions as regards the timeframe for the relevant analysis. Furthermore some refinement of the legal text has been introduced for further accuracy and clarity without changing the substance.

Summary of responses to the consultation and the EBA's analysis

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
General comments			
<p>A couple of respondents highlight the challenge of producing a complex, comprehensive and highly technical body of MiCAR level 2 regulatory instruments and related guidelines within a tight timeframe and raises concerns in that these instruments need to ensure consistency across them. Therefore, the respondent flags the need of keeping these instruments under review after their application with close ongoing dialogue with supervisors and the industry. In this context, the respondent refers to the report that the European Commission, after consulting EBA and ESMA, has to present to the European Parliament and the Council by 30 June 2025, according to Article 140 of MiCAR, on the application of MiCAR and accompanied as appropriate by a legislative proposal.</p> <p>Furthermore, it is suggested that the EBA and the European Commission to work on a consolidated document for at least all the liquidity risk related standards that would facilitate its implementation and compliance.</p> <p>Some respondents raised comments on aspects that are related to other consultation papers (e.g. overcollateralization, risks to cover in the liquidity stress testing...), in which case they are addressed in the relevant final report. Some respondents raised concerns and comments on the level 1 text directly, MiCAR, (e.g. minimum amount of deposits...), in which case they are out of the scope of the consultation process of these draft RTS. In some cases some respondents provide feedback to similar topic across various questions; here the responses are considered in the most appropriate question. The EBA has intended to capture all feedback received in the most appropriate manner avoiding repetitions across questions or different consultation papers.</p>			
Responses to questions in Consultation Paper EBA/CP/2023/25			
Question 1. Do respondents have any comment about the calibration of the percentages of reserve assets with specific maximum maturities as suggested in Article 1 and Article 2 of the draft RTS?			
Deposits with credit institutions with no stated maturity	One respondent ask confirmation from the EBA that deposits at credit institutions with no stated maturity are considered to mature on the next working day.	The draft RTS, in line with points (a) and (b) of Article 36(4) of MiCAR, refer to cash that can be withdrawn by giving prior notice of one working day to be included in the percentages of reserve assets with maximum residual maturities within 1 or 5 working days. Therefore, sight deposits or with no stated maturity that can be withdrawn by giving prior notice	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Grace period for return to compliance	One respondent requests the EBA to provide ‘grace periods’ for compliance with minimum maturity limits if a situation of no compliance would arise due to extreme circumstances, e.g. after material redemption of tokens entailing material disposal of short-term reserve assets. The respondent assumes that under these extreme circumstances it is up to the competent authority’s discretion to set a timeframe to return to compliance. This proposal intends to avoid fire-sales that could be triggered to return to compliance.	The EBA has assessed the need to envisage a regulatory process in case an asset would cease complying with any requirement in this regulation. The EBA has included a recital and an article in this regard to clarify the process to follow in these cases in order to avoid unintended consequences as, for example, potential run-off deposits in case of breaching concentration limits.	<p>A new recital (7) has been introduced as follows <i>“There is a need to ensure, without prejudice to the withdrawal of the authorization in accordance with Article 24 Regulation (EU) 2023/1114, that, in cases of deviations from the requirements set out in this Regulation, a plan is promptly submitted to the competent authority as a liquidity management technique.”</i></p> <p>A new Article 7 has been included: <i>“Without prejudice to Article 24 of Regulation (EU) 2023/1114, where an issuer of asset-</i></p>

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Calibration of minimum percentages	One respondent considers that the thresholds for non-significant tokens are high (20% – 30%, for residual maturities within one or five working days) and considers that the thresholds for significant EMTs (40% - 60%) are	As explained and further developed in the consultation paper, the EBA provided the calibration of minimum reserves with maximum residual maturities based on recent run-off cases of deposits	<p><i>referenced tokens, or an e-money institution issuing e-money tokens subject to this Regulation, does not meet all the requirements set out in this Regulation, or where that issuer or e-money institution, or the competent authority have evidence that such requirements are likely to be breached, the issuer or the e-money institution shall prepare a detailed plan, including following a request by the competent authority, and submit it to the authority within five working days.”</i></p> <p>No changes made</p>

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	<p>highly disproportionate, suggesting applying the same as for non-significant EMTs.</p> <p>Another respondent considers that the calibrations are very high and does not find fundamentals for the 20% - 30% limits for residual maturities of one and five working days, whereas the liquidity requirements for banks are rather set on a 30-day period which however, in view of the respondent, should be stricter than for issuers of tokens.</p> <p>Other respondents have raised some comments around the part of the methodology used to calibrate the thresholds, based on recent trends of deposit run-offs in banks: caution is asked in fixing rigid requirements, concerns are raised on whether it might not be as relevant for tokens not referenced to official currencies in Article 2, some adjustment mechanism of the thresholds is suggested considering that their revision in the RTS cannot always be promptly or easily made and suggestions are raised to look into the various business models of issuers of tokens versus the cases observed in banks.</p>	<p>linked to crypto activities as well as taking into account similar provisions in the money market funds regulation.</p> <p>The EBA considers that the calibration also ensures that at least most deposits with banks will be readily available as needed for potential redemption requests. Liquidity features prevail here and considering a framework where deposits with banks would only be able to be withdrawn in some months would make them not appropriate to meet redemption request in a prompt manner including under a scenario of stress.</p>	
<p>Question 2. Do respondents consider that the requirements in Article 1 and Article 2 related to the 1 and 5 working days maximum maturity could create excessive pressure in the repo market, taking into account the minimum required amount of deposits in credit institutions in the case of tokens referenced to official currencies?</p>			
<p>Not clear evidence of expected pressure</p>	<p>Few respondents raised concerns about potential excessive pressure in the repo market due to the requirements in Articles 1 and 2 of the draft RTS. Those respondents did not provide much explanation about the concerns raised. Most of the respondents either did not provide any feedback or state that are not sure of which impact could be expected or</p>	<p>The EBA considers that there is no evidence provided suggesting that the calibration of maximum maturities for a minimum percentage of the reserve of assets will create excessive pressure in the repo market.</p>	<p>No changes made</p>

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	<p>even in some acknowledge no evidence suggesting excessive pressure.</p> <p>One of the respondents raising concerns suggests that, in order to avoid excessive disturbances and pressure on the repo markets, issuers of significant EMTs should be allowed to hold a higher percentage of deposits with residual maturities within 5 working days. Another respondent argues that the pressure on repo markets might arise due to the inflexible nature of the calibration of the thresholds in Article 1 and 2 and suggests the EBA to consider how a recalibration or alternative measures might be undertaken if such an event would occur.</p>		
Question 3.			
Do respondents have any comment on the proposed approach in Article 3 of the draft RTS to not increase the minimum amount of deposits from 30% (or 60% if the token is significant) of the asset referenced in each official currency?			
Issuers of significant EMTs and requirement of minimum deposits with credit institutions	<p>One respondent considers that MiCAR could be read in a way that issuers of significant EMTs would not be obliged to have a minimum amount of deposits with credit institutions. The respondent considers that Article 58 of MiCAR requires issuers of significant EMTs to apply Article 45 (3) on the required liquidity management policy but not Article 45 (7)(b) that requires the EBA to develop RTS further specifying the liquidity management requirements in Article 45 (3) including the minimum amount of deposits with credit institutions of at least 60% of the official currencies referenced.</p> <p>Another respondent, along these lines, considers that the minimum 60% would only apply to issuers of significant ARTs</p>	<p>The EBA would like to clarify that e-money institutions issuing significant EMTs are subject in MiCAR to a minimum amount of deposits in their reserve of assets, to be specified in these RTS, that cannot be lower than 60% of the official currencies referenced. For these reasons the RTS encompass these tokens in the calibration of the minimum amount of deposits with credit institutions.</p> <p>Point (a) of Article 58(1) indicates that e-money institutions issuing significant EMTs are subject to the requirements in Article 45(3) for issuers of significant ARTs. Article 45(3) requires issuers of significant ARTs to assess and monitor their liquidity needs for redemption purposes for which a liquidity</p>	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	for the part referenced to official currencies and not to significant EMTs.	<p>management policy and procedures shall be established, maintained and implemented, in order to ensure that the reserve of assets has a resilient liquidity profile.</p> <p>Point (b) of Article 45(7) mandates the EBA to prepare an RTS specifying requirements for minimum content of such liquidity management policy, and liquidity requirements, including the minimum amount of deposits of at least 60% of the official currencies referenced. Thus e-money institutions issuing significant EMTs are subject to the requirements in Article 45(3) as specified in the RTS under Article 45(7) which includes the 60% bank deposits obligation at least.</p>	
Deposits with central banks	Two respondents request the EBA to acknowledge that reserve funds with a central bank of the EU, as some EU central banks already allow, should be treated as counting towards the minimum funds required to be deposited instead of invested into HLF/	<p>Point d) of Article 36(4) and point (b) of Article 45(7) of MiCAR refer to the minimum amount of ‘deposits’ in the reserve of assets of at least 30% and 60% of the official currencies referenced, for tokens that are not significant or that are significant, respectively.</p> <p>Point (50) of Article 3(1) of MiCAR defines ‘deposits’ for the purposes of MiCAR as established in Article 2(1), point (3), of Directive 2014/49/EU which stipulates that “ ‘deposit’ means a credit balance which results from funds left in an account or from temporary situations deriving from normal banking transactions and which a credit institution is required to repay under the legal and contractual conditions applicable, including a fixed-term deposit and a savings deposit...”</p>	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Economic impact of minimum deposits	A couple of respondents, while agreeing to not increase the minimum deposits as envisaged in MiCAR, raise some concerns arising from such big amounts required, namely risks to financial stability, the absence of consideration of impact on profitability of issuers disregarding that interest rates may turn negative. They also indicate that the high amount of deposits will influence the outcome of the liquidity stress testing.	Therefore, for the purposes of minimum ‘deposits’ under point (d) of Article 36(4) and point (b) of Article 45(7) of MiCAR only deposits with credit institutions count; and not deposits with central banks. The EBA takes note of the comments. The EBA has opted to not increase the minimum required amounts of deposits as envisaged in MiCAR. The EBA considers that these amounts do not need to be increased for issuers to have sufficient readily available liquid resources, taking into account also other aspects like resilience of the reserves as a whole and sustainability of issuers, financial stability, etc.	No changes made
Higher amounts of deposits beyond 30% and 60% subject to discretion of competent authorities	One respondent notes that competent authorities have the discretion to augment the minimum 30% and 60% required deposits. The respondent considers that, however, the proposed RTS lack detailed clarification on the rationale behind such increases. Therefore, the respondent asks to offer more comprehensive guidance on the specific conditions that must be satisfied for the NCAs to increase the proposed minimum deposit amounts.	As established in the background of the consultation paper and of this final report, the EBA considers that, on a case-by-case basis, competent authorities (CAs) are able to increase in the reserve of assets the minimum 30% up to a minimum 60% in the case of ARTs that are not significant (following Article 35(4) together with Article 45(3) and 45(7)) and in the case of EMTs that are not significant and are issued by e-money institutions (following Article 58(1) and (2) together with Article 45(3) and (7)). Article 35(4) empowers CAs to require an issuer of an ART that is not significant to comply with any requirement under Article 45, generally to address higher degree of risks under Article 35(3) or Article 45, particularly liquidity risks. Articles 45(3) and 45(7) refer, among others, to a minimum amount of deposits of 60% of the official currencies referenced.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		<p>Article 58(2) empowers CAs to require e-money institutions issuing EMTs that are not significant to comply with the requirements in Article 58(1) where necessary to address the risk inherent in that provision, particularly liquidity risks. Article 58(1) refers to the requirements in Article 45(3) that, as further specified following Article 45(7), includes a minimum amount of deposits of 60% of the official currencies referenced.</p>	
<p>Question 4. Do respondents have any comment with the definition of the requirement of a minimum liquidity soundness and creditworthiness in the deposits with credit institutions as proposed in Article 4 of the draft RTS?</p>			
<p>Subjective assessment and limited eligible counterparties.</p>	<p>Generally, respondents agree with the general principle to mitigate credit risk inherent in the deposit taking institution. Some concerns are raised though:</p> <p>Two respondents consider that the definition of minimum creditworthiness and liquidity soundness is vague and not very clear. An alternative proposed is to build on official credit ratings of recognised credit rating agencies, and in their absence on financial figures such as profits, own funds, total assets compared to liabilities, etc.</p> <p>Two respondents flag the difficulties to find banks meeting these conditions due to i) the limited appetite of credit institutions to take deposits related to crypto activities and ii) the limits in the RTS related to concentration limits by deposit counterparty. An amendment is proposed to acknowledge the issuers the right to expect by default full performance of the credit institutions where they place their deposit. They argue that this would follow Recital 55 of MiCAR that establishes that in certain situations</p>	<p>The EBA acknowledges that the approach is not as objective as could be desired but has intended to find a straightforward solution to address all cases of banks taking deposits in the EU in an ongoing basis, which might not happen in the case of credit ratings being used. Indeed, it is a similar approach as the one envisaged in the LCR framework for the recognition of inflows.</p> <p>The EBA considers that finding banks with adequate creditworthiness and liquidity soundness should be feasible taking into account all the banking prudential framework in place.</p> <p>The EBA does not agree with a default solution where all banks should be a priori necessarily expected to be fully performing. This will depend on the ongoing creditworthiness and liquidity soundness of the bank.</p> <p>The EBA does not find a clearcut connection between some acceptable temporary concentration in certain</p>	<p>A new paragraph 2 is proposed to be added to Article 4 for clarification: <i>“The assessment referred to in the previous paragraph shall be made for a time-horizon of 365 days for sight deposits, and for time until maturity for the term deposits.”</i></p>

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	concentration in custodians of reserve of assets might not be possible to be avoided due to a lack of suitable alternatives where a temporary concentration should be deemed acceptable.	situations, in relation to the number of custodians, as envisaged in Recital 55, and the soundness of the deposit taking institutions. In order to make this approach more pragmatic and easier to implement the EBA proposes that the creditworthiness analysis should encompass the relevant residual maturity for term deposits and 365 days for sight deposits.	
A potential solution	One respondent notes that issuers may have reasons to expect non-performance by credit institutions in the case of such an institution getting into financial difficulty.	The EBA agrees that, among other cases, a situation where the bank taking deposits enters into financial difficulties is sufficient to raise expectation of non-performance for the purposes of Article 4 of these RTS.	No changes made
Regulatory contrasts	One respondent flags the contrast between the intention of the RTS to cover inherent creditworthiness and liquidity risks linked to these deposits with a high minimum amount of the deposits required for tokens referenced to official currencies in MiCAR (at least 30% or 60% if significant).	Precisely due to the requirement to tokens' issuers in MiCAR to have a high amount of deposits with credit institutions, the EBA seeks to ensure a proper liquidity management of the reserve of assets by targeting a minimum creditworthiness and liquidity soundness of the credit institutions receiving such deposits.	No changes made
Question 5. Do respondents have any comment about the definition of the requirement of a maximum concentration limit of deposits with credit institutions by counterparty in Article 5 of these draft RTS? And about the definition of the general limit considering, in addition to deposit with a bank, also the covered bonds issued by and unmargined OTC derivatives with the same bank counterparty?			
Concentration limits by deposit counterparty	Many respondents explained the difficulties they have to find banks accepting to take deposits related to crypto activities. Respondents argue that banks seem to have a low appetite to take these deposits due to the lack of understanding of the market or perceived riskiness since	The EBA appreciates and acknowledge the concerns raised. The EBA takes note of the difficulties expressed during the consultation period. In particular the EBA notes the reference to the lack of willingness or appetite from banks to take deposits	Paragraphs 1, 2 of and 3 of Article 5 are amended as follows: "1. The For a deposits within a

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	<p>banks have only simplified risk models that do not differentiate business models within the stablecoin sector.</p> <p>Respondents argue that this will force issuers to have the deposits placed with riskier and smaller banks that seem to be the only ones ready to accept them.</p> <p>Respondents argue that concentration limits, meaning a large number of counterparties, challenge compliance with meeting the minimum amounts required to be placed with banks, 30% or 60%. The 10% concentration limit with respect to the reserve of assets (5% if smaller banks) requires at least 6 large banks (or 12 smaller banks).</p> <p>Respondents suggest increasing the 10% limit to 20% following the UCITs framework used as a reference. Some ask no differentiation in the limits between large and smaller banks.</p> <p>Some respondents challenge the 2.5% concentration limit, defined with respect to the liabilities of the deposits taking institutions, particularly for the impact this might cause to impede smaller banks to receive large amounts of deposits from significant EMTs issuers considering that that smaller banks seem to be more open to receive deposits from tokens' issuers. They argue that this might force issuers of significant EMTs to seek even smaller banks.</p> <p>Respondents also flag the possibility that the risks to the sector could be larger in case a bank fails if the deposits need to be spread across a large number of institutions.</p> <p>Some respondent argued that the aggregated 25% concentration limit (by deposit counterparty, by issuer of</p>	<p>stemming from crypto related activities. Particularly the EBA pays attention to the feedback received from respondents that banks might have only simplified risk models that do not differentiate business models within the stablecoin sector.</p> <p>Within the general obligation of credit institutions to have adequate risk management arrangements and being subject to due prudential supervision, in particular the EBA's expectation is that large credit institutions have more advanced risk management arrangements, potentially, enabling them to conduct more accurate analysis of the risks brought to them by the clientele.</p> <p>The EBA has taken into account the concerns flagged by respondents that issuers might have difficulties to meet the expectations in the regulation to have such a high amount of the reserve of assets in the form of deposits with the minimum number of institutions proposed, while ensuring that the institutions willing to take them have the most appropriate profile for it to ensure the ability to repay deposits upon demand. The EBA would like to avoid any possibility that ultimately compliance with the concentration limits might cause unintended effects in the crypto-asset market and more generally in the whole financial system. The EBA would also like to avoid creating potential barriers of entry into a market that is promoted by the legislator.</p>	<p>single credit institutions that are to be included in the reserve of assets, such deposit shall respect the following thresholds: referred to in Article 36 of Regulation (EU) 2023/1114 shall not be placed with the same credit institution by an amount higher than 10% of the market value of the reserve of assets referred to the same tokens. Where the credit institution receiving the deposit does not qualify as a large institution as defined in Article 4(1), point (146), of Regulation (EU) No 575/2013, that percentage shall be 5%</p> <p>(a) 25% or lower of the market</p>

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	covered bonds and derivatives bank counterparty) is challenging.	<p>For these reasons, the EBA would like to refine its proposal to alleviate the restrictiveness of the approach while ensuring a minimum diversification.</p> <p>The EBA has significantly reduced the number of large institutions required among which to diversify issuers' deposits. The EBA intends to alleviate the existing operational obstacles to have a minimum number of counterparties of appropriate risk profile and willing to take deposits.</p> <p>With the refined approach the required minimum number of large institutions taking deposits is reduced:</p> <ul style="list-style-type: none"> - In the consultation paper at least 6 large institutions were necessary to cover the minimum required deposits in the case of significant tokens. With the new proposal this requirement would be met with either 3 G-SIIs/O-SIIs or with 4 large banks other than G-SIIs/O-SIIs. - In the consultation paper at least 3 large institutions were necessary to cover the minimum required deposits in the case of non-significant tokens. With the new proposal this requirement would be met with 2 large institutions. <p>In parallel the EBA proposes to recalibrate the concentration limit defined with respect to the liability side of the deposits taking institutions to 1.5% rather than 2.5%. This measure will reinforce the incentives to have the deposits with larger institutions, that have now more alleviated concentration limits, that are expected a priori to be</p>	<p><i>value of the reserve of assets, where that credit institution is identified as either 'global systemically important institution' (G-SII) or other 'systemically important institution' (O-SII) in accordance with Article 131 of Directive 2013/36/EU;</i></p> <p><i>(b) 15% or lower of the market value of the reserve of assets, where that credit institution is a large institution as defined in Article 4(1), point (146), of Regulation (EU) No 575/2013 but is not identified as G-SII or O-SII;</i></p> <p><i>(c) 5% or lower of the market value of the reserve of assets, where that institution does not</i></p>

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		<p>more prepared, and with higher access to funding alternatives including wholesale markets, to potentially deal with run-off deposits.</p> <p>With these amendments, where the maximum concentration limit in terms of deposits with a bank could be up to 25%, rather than 10% in the proposal of the consultation paper, the aggregated concentration limit in paragraph 3 of Article 5 should be increased to ensure that still some derivatives or covered bonds could be held with the same counterparty. The EBA proposes to increase it from 25% to 30%. With a maximum 30% concentration limit with the same bank in an aggregated manner via deposits (25%), covered bonds issued (10%) and derivatives (10%) the approach would be reasonably prudent while allowing for different transactions with the same bank.</p>	<p><i>fall under (a) or (b) above.</i></p> <p><i>2. The For a deposits within a single credit institution that are to be included in the reserve of assets, of the same tokens referred to in Article 36 of Regulation (EU) 2023/1114 such deposit shall not exceed 2.5% 1.5% of the total assets of the that credit institution receiving those deposits.</i></p> <p><i>3. The amount of the deposits in a credit institution referred to in paragraphs 1 and 2 together with the market value of highly liquid financial instruments in the form of securities or money market instruments issued or guaranteed by the same credit</i></p>

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Close links	Ask clarification of “close links”	The EBA refers to the definition of ‘close links’ in point (31) of Article 3 of the level 1 text, MiCAR.	<p><i>institution, as well as and the risk exposure to that credit institution in unmargined OTC derivatives, as envisaged in Article 38(1) of Regulation (EU) 2023/1114, shall not exceed 25% 30% of the market value of the reserve of assets referred to the same tokens.”</i></p>
Transitional period	Considering the concerns raised, some respondent requested a 1-year transitional period for the application of any concentration limit.	The EBA considers that the concentration limits proposed with regards to deposits with the same counterparty are crucial for the sound management of the operations of the issuers in ensuring the effectiveness of the reserve of assets that is required to happen at all times, following Article 36(1) of MiCAR, without any transitional period in the level 1 text.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Fiduciary structure involving escrow accounts at central banks	<p>One respondent suggests including as HLFIs a fiduciary structure involving escrow accounts at central banks of member states. The respondent argues that these accounts are on the one hand also highly liquid and on the other hand are not exposed to market risk or credit risk. It is also argued that adding such assets to the definition of HLFIs is needed for operational purposes, as issuers will only have access to central bank accounts if they simultaneously hold a license as credit institutions as central banks will not grant accounts to institutions which are not credit institutions. It is also indicated that all other e-money issuers need to be onboarded by other third credit institutions which then hold escrow accounts at central bank. The structure involving fiduciary services and escrow accounts described above, in view of the respondent, will enable issuers to avoid credit and concentration risks the same as it happens for credit institutions. Following this, the respondent also suggests that the limits in regard to concentration risk of credit institutions should not apply in such cases.</p>	<p>Deposits with credit institutions are not considered as financial instruments by MIFID. Therefore, they cannot be considered as highly liquid financial instruments.</p> <p>The EBA has assessed the considerations made for this type of accounts as potential cases to benefit from less strict concentration limits by deposit counterparty.</p> <p>The EBA has not been able to identify in practice these types of deposits where the necessary safeguards, including any implication from a monetary policy and market operational perspective, should be in place to ensure that these deposits could be exempted from the general approach in these draft RTS as regards concentration limits by deposit counterparty.</p>	No changes made
Application of concentration limits by deposit counterparty in the case of non-significant EMTs	<p>One respondent considers that Article 4 (c) of the draft RTS (Unwind mechanism) refers to the application of concentration limits by deposit counterparty established in Article 5 of the RTS to further specify the liquidity requirements of the reserve of assets under Article 36(4) of Regulation (EU) 2023/1114]. However, Article 4 also highlights that e-money institutions issuing e-money tokens shall apply the approach only “where applicable”. It is their understanding that the concentration limits by deposit counterparty (10% with large banks, otherwise 5%) proposed under the other RTS do not apply by default to issuers of e-money tokens that are not significant (only if the</p>	<p>The EBA would like to clarify that e-money institutions issuing significant e-money tokens are required to have deposits with credit institutions in their reserve of assets by at least 60% of the official currencies referenced. This is following Article 58(1) in conjunction with Article 45(7) and 45(3) of MiCAR.</p> <p>Furthermore, competent authorities may require e-money institutions issuing e-money tokens that are not significant to have reserve of assets, including deposits with credit institution by at least 30% of the official currencies referenced. This is following Article</p>	No changes proposed

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	<p>NCA decides otherwise) as these other RTS are specifically drafted for the reserve of assets under Article 36 (4) and MiCA does not mandate the EBA to set concentration limits for deposits for non-significant EMTs (again unless the NCA decides to apply these requirements to these tokens proactively). However, the mentioning of these deposit counterparty limits in Article 4 are somewhat confusing, and we would appreciate a clarification that these limits do not apply by default to all e-money institutions issuing e-money tokens</p>	<p>58(2) in conjunction with Articles 58(1) and 36(4)(d) of MiCAR.</p> <p>The concentration limits by deposit counterparty, as established in Article 5 of the draft RTS further specifying the liquidity requirements of the reserve of assets as per Article 36(4) MiCAR, apply directly in the case of e-money institutions issuing significant e-money tokens as well as in the case of e-money institutions issuing e-money tokens that are not significant and are required to have reserve of assets by the relevant competent authority.</p>	
<p>Question 6. Do respondents have any concern about compliance with these concentration limits in Article 5, considering in particular paragraph 14 of the cost/benefit analysis in relation to the potential operational burden and risk of a wrong direction diversification, linked to the minimum required liquidity soundness and creditworthiness of deposits with banks, and taking into account the minimum amount required of deposits with credit institutions by MiCAR for tokens referenced to official currencies?</p>	<p>Generally, respondents raised concerns on concentration limits in deposits bringing:</p> <ul style="list-style-type: none"> - Massive operational burden, great difficulties to find counterparties, with huge operational costs - Possible wrong direction diversification increasing the risk of the reserves. Only less reliable, creditworthy and liquid banks will be accessible. - Impact the business models and opportunities of issuers. Lower yield due to lower amount – less viable business for issuers together with higher costs. Noncompetitive in the EU. - Concentration of crypto deposits from various issuers in the same banks that would accept these 	<p>The EBA appreciates the comments received and have taken them into account for the refinement of the proposed concentration limits under Article 5 of the draft RTS.</p>	<p>Changes in Article 5 as described</p>

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	<p>deposits. Higher risk to the financial systems and to crypto ecosystem.</p> <ul style="list-style-type: none"> - Suggest going back to 20% or to leave it to own assessment. No justification valid provided on the riskiness of the business for reinforcing diversification. 		
<p>Question 7. Do respondents have any comment about the definition of the mandatory over-collateralisation in Article 6 of these draft RTS and the rationale for it? Do respondents find it challenging from an operational perspective, in particular with respect to envisaging 5 days windows rather than 1 day windows for observation periods of the market value of the assets referenced versus the reserve of assets and over the previous 5 years? Please elaborate your response with detailed reasoning.</p>			
<p>Duplication of own funds requirements</p>	<p>Some respondents argued that over-collateralization (OC) could be duplicative to own funds requirements. They suggest that OC should be deducted from own funds requirements at least to avoid duplication.</p>	<p>The EBA considers that OC does not duplicate own funds requirement.</p> <p>OC is to ensure the going concern status of issuance, while the own funds requirement is to provide a loss absorbing capacity to the issuer and thus is expected to be relevant in a gone concern scenario.</p> <p>The OC is relevant to ensure compliance with the requirement set under art. 36(7) MiCAR. It seeks to cover historical evidence of shortfall of reserve assets to meet liabilities against token holders at all times, especially in instances of market distress. It ensures asset with minimum liquidity features like short term</p>	<p>No changes made</p>

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
MiCAR expectations	Some respondent argues lack of evidence as to why it is necessary since not required in MiCAR. They consider that OC is not needed due to own funds requirements in MiCAR of 2% of the reserve of assets (or 3% for significant) and up to 20% by CAs.	deposits, HLF, financial asset replicating the assets reference, etc. Article 36(7) of MiCAR explicitly envisages the possibility that OC might be necessary. It states that the reserve of assets shall be “at least” equal to the claims against the issuer from the token holders. OC is considered as technique for liquidity management that the EBA is mandated to provide in the context of these RTS as per Article 36(4)(c).	No changes made
Approach	Some respondents raise concerns about the approach proposed, particularly as to the observation periods of five consecutive days to compare maximum market value of the assets referenced by the token (liabilities) versus minimum market value of the reserve assets (assets). They argue that OC might arise simply by comparing a large amount of liabilities in one day versus a smaller amount of assets on a different day, within the same 5-day period. The respondents note that situations of issuances/redemption of tokens, and related inflows/outflows, might have happened during these days that might make the comparison between the maximum value of the liabilities and minimum value of the assets irrelevant. The solution proposed by respondents is to change the number of days of comparison from 5 days to 1 day.	The EBA appreciates the comments. The EBA agrees that some refinement is necessary to address cases of significant issuances of redemptions of tokens within the 5 consecutive days periods. For example: - in the case of significant redemption of tokens on day five with a parallel significant reduction of the associated reserve assets. The minimum value of the reserve of assets will likely be on day 5 due to the redemption whereas the maximum value of the assets referenced could correspond to day 1, where the amount of tokens in circulation was much larger. This situation would show the need of OC without in reality comparing assets and liabilities relative to the same tokens in circulation. The risk of an overestimate OC is aggravated by the procyclicality effects it may have since it will be still considered during the following 5 years. - in the case of significant issuance of tokens on day five with an in parallel increase of the reserve assets.	The following amendment is made to Article 6: 1. At any time t, the daily market value of the reserve of assets referred to the same tokens shall meet the following formula*: where: - Reserve_Assets _t is the market value at time t of the reserve of assets referred to the same tokens; - Assets_Reference _t is the market value

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		<p>The minimum value of the reserve assets could correspond to day 1 whereas the maximum value of the assets referenced would be on day 5, with the new issuance. Again, comparison of values between different amounts of tokens in circulation resulting in an overestimate of OC could have unintended and procyclical effects.</p> <p>For these reasons the EBA proposes to refine the approach and follow the other alternative which impact assessment was also provided in the consultation paper and consider comparisons of market value of the reserve assets and assets referenced during the same day for the purpose of determining the required over-collateralisation.</p>	<p>at time t of the assets referenced by those tokens;</p> <p>- 1 is any set of 5 consecutive working days in the 5-year period before date t.</p>
Frequency	<p>Some respondent asks for clarification on how often the calculations should be made and when OC is needed following the formula. Operational burden for its ongoing calculation is argued.</p> <p>A suggestion is raised to exclude a timeframe for initial token issuance arguing that there might be some initial days where compliance with the general requirements is difficult, also taking into account the rules on concentration limits, and where OC requirements could even complicate it further.</p>	<p>The EBA considers that the OC analysis should be done in an ongoing manner. As indicated above MiCAR requires the reserve of assets to be at least equal to the value of the assets referenced at all times, whose compliance requires and ongoing assessment of OC.</p>	No changes made
Numerical example	<p>A numerical example of OC is requested to ensure good understanding. Request clarification on what is expected to be captured in the reserve of assets and value of assets referenced in the formula for EMTs.</p>	<p>The EBA would like to recall that such clarifications and examples are provided in the impact assessment of the consultation paper, including for OC measured on a 1-day timeframe.</p>	No changes made
Question 8. Do respondent think that any provision in the draft RTS is confusing and that some clarification would be necessary?			

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Concentration limits by deposit counterparties in the case of non-significant EMTs	Clarification is requested that banking concentration limits do not apply by default to issuers of non-significant EMTs.	Clarification on this point has been provided in the analysis to the related comment received under question 5.	No changes made

$$* Reserve_Assets_t \geq Assets_Referenced_t \times \left(1 + \max_{s \in I} \left\{ 0; \frac{\max Assets_Referenced_{s-t=0}^4 - \min Reserve_{Assets_{s-t=0}^4}}{\max Assets_Referenced_{s-t=0}^4} \right\} \right)$$