EBA EUROPEAN BANKING AUTHORITY

15 December 2015

EBA/RTS/2015/10

Final Report

Final draft Regulatory Technical Standards

on certain prudential requirements for central securities depositories under Regulation (EU) No 909/2014 ('Central Securities Depositories Regulation' (the CSD-R)

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1. Executive Summary

Regulation (EU) No 909/2014 (the CSD-R) mandates the EBA, in close cooperation with the European Securities and Markets Authority (ESMA) and the members of the European System of Central Banks (ESCB), to develop three draft regulatory technical standards (RTS) on prudential requirements for central securities depositories (CSDs).

These final draft RTS include all three mandates:

a) the capital requirements for CSDs (Article 47 of the CSD-R);

b) the additional risk-based capital surcharge reflecting the risks, including intra-day credit and liquidity risks, resulting from ancillary banking services (Article 54); and

c) the details of the frameworks and tools for the monitoring, the measuring and the management, the reporting and the public disclosure of the credit and liquidity risks, including those that occur intra-day (Article 59).

The CSD-R introduces a distinction between CSDs offering banking-type ancillary services and licensed as a credit institution and those CSDs that are not permitted to offer banking-type ancillary services but can designate a credit institution to that effect. The RTS on capital requirements are targeted at all CSDs, whereas the requirements under Articles 54 and 59 apply exclusively to CSDs offering banking-type ancillary services listed in Section C of the Annex to the CSD-R ('Banking-type ancillary services') or credit institutions designated by the CSD to offer such banking-type ancillary services.

The aim of these draft RTS is to harmonise calculations on capital requirements that currently vary across Member States, and to specify a prudential framework for those CSDs that provide banking-type ancillary services. These requirements will, as specified in the CSD-R, be in addition to those required by Regulation (EU) No 575/2013 (the CRR) and will specifically address the intra-day credit and liquidity risks that these CSDs are exposed to.

The RTS on capital requirements specify the definition of capital, which follows the definition of capital in Regulation (EU) No 648/2012 (EMIR). CSDs providing banking-type ancillary services need to comply in parallel with the capital requirement rules of the CRR. The RTS address possible differences to ensure that the stricter rules on prudential supervision apply. The capital needs to be sufficient to ensure that the CSD is adequately protected against operational, legal, custody, investment and business risks so that it can continue providing services on a going concern basis. Operational, legal and investment (credit, market and counterparty credit) risks are addressed in the same way as for CCPs with direct references to the CRR; custody risk is included in the operational risk charge. Capital requirements for business risk can be addressed as a percentage of the gross operational expenses or via a scenario approach.

The second part of these draft RTS determines how an additional risk-based capital surcharge should be applied to CSDs offering banking-type ancillary services. The methodology proposed in these final draft RTS is based on the average of the five highest aggregated intra-day exposures over the most recent calendar year and the assumption that the corresponding collateral loses 5% of its market value. The risk-weighted residual exposure amounts shall be calculated in accordance with the credit risk methodologies set out in the CRR assuming that those exposures are end-of-the-day exposures.

The third part of these RTS covers the mandate of Article 59 and is divided into three parts, one covering the collateral framework, the second credit risk and the third the liquidity risk framework. The draft RTS assume that the banking service provider, i.e. a CSD authorised in accordance with point (a) of Article 54(2) of the CSD-R to provide banking-type ancillary services or a credit institution designated in accordance with point (b) of Article 54(2) of the CSD-R, is also subject to the requirements of the CRR, and therefore focus on the areas where the CSD-R objectives are not met by the CRR.

The first part of this chapter specifies the conditions for collateral management and haircuts to be applied. The framework for measuring, monitoring and managing intra-day credit risk is specified in the second part. The third part specifies the framework for intra-day liquidity risk. The section on monitoring intra-day liquidity risks follows several principles of the BCBS paper 'Monitoring Intraday Liquidity Risk'. The management section of the draft RTS transposes the monitoring metrics into a liquid asset requirement to mitigate the risks associated with intra-day liquidity exposures. Nevertheless, uncommitted credit lines are not recognised as qualifying liquid resources and, as such, are treated in line with the Principles for Financial Market Infrastructures (the CPSS-IOSCO principles or PFMIs), which specify that they may be used in advance of, or in addition to, qualifying liquid resources.

In developing these technical standards, the EBA took into account Article 46 of the CSD-R and the relevant technical standards, being developed by ESMA, the PFMIs and the BCBS principles for the monitoring and the management of intra-day liquidity.

2. Background and rationale

1. These final draft RTS are based on the mandates that Regulation (EU) No 909/2014 (the CSD-R) assigns to the EBA. The CSD-R includes three mandates for the EBA to develop draft regulatory technical standards (RTS) in close cooperation with ESMA and members of the ESCB, to be submitted to the European Commission by 18 June 2015.

2. The CSD-R introduces a distinction between central securities depositories (CSDs) offering banking-type ancillary services and licensed as a credit institution and those CSDs which are not permitted to offer banking-type ancillary services and therefore not licensed as a credit institution. The CSD-R envisages that a CSD seeking to provide banking-type ancillary services can provide such services:

   a) Itself, assuming it is duly licensed as a credit institution and provides only the banking-type ancillary services referred to in Section C of the Annex to the CSD-R or

   b) by designating one or more credit institution that is used only to provide the banking-type ancillary services referred to in Section C of the Annex to the CSD-R and not to carry out any other activities.

3. An overview of the functioning of a CSD and the role of the international central securities depositories (I-CSDs) is available in the accompanying document of the original Commission proposal.[1]

4. The capital requirements under Article 47 apply to all CSDs, whereas the requirements under Articles 54 and 59 apply exclusively to CSDs offering banking-type ancillary services listed in Section C of the Annex to the CSD-R ('Banking-type ancillary services') or credit institutions designated by the CSD to offer such banking-type ancillary services.

5. The CSD-R mandates the EBA to develop draft RTS to:

   a) specify the requirements regarding the capital, retained earnings and reserves of a CSD (Article 47 of the CSD-R);

   b) specify the requirements regarding the additional, risk-based capital surcharge reflecting the risks, including intraday credit and liquidity risks, resulting from the provision of intraday credit, inter alia, to the participants in a securities settlement system or other users of CSD services (Article 54 of the CSD-R);

[1] Commission Staff Working Document, Impact Assessment, Accompanying the document, Proposal for a Regulation of the European Parliament and of the Council on improving securities settlement in the European Union and on Central Securities Depositories (CSDs) and amending Directive 98/26/EC, European Commission, Brussels, March 2012.

c) specify the details of the frameworks and tools for the monitoring, the measuring and the management, the reporting and the public disclosure of the credit and liquidity risks, including those that occur intra-day (Article 59 of the CSD-R).

6. Article 60 of the CSD-R empowers the EBA to issue guidelines addressed to competent authorities with the objective of ensuring consistent, efficient and effective supervision of designated credit institutions and CSDs providing banking-type ancillary services. At this stage, the EBA has not identified topics that need additional clarification. Therefore, the EBA does not plan to issue any guidelines on this topic in the short term.

7. In developing these technical standards, the EBA took into account Article 46 of the CSD-R and the relevant technical standards, being developed by ESMA, the CPSS-IOSCO Principles for Financial Market Infrastructures (the CPSS-IOSCO principles or PFMIs)[2] and the BCBS principles for the monitoring and the management of intraday liquidity.[3]

8. Where applicable, CRDIV and the CRR[4] have also been considered in accordance with the explicit recommendation of Article 59 of the CSD-R (reported in Annex of this Final Report) as have the regulation on capital requirements for central counterparties (CCPs)[5] issued under EMIR.[6]

2.1 Article 47 of the CSD-R – Capital requirements

9. Article 47 of the CSD-R introduces two layers of protection, a first one covering the risks on a going concern basis and a second one that aims to guarantee that enough own resources are available to manage a winding-down or the restructuring of the CSD activities. These requirements cover all types of CSDs, those offering banking-type ancillary services and those offering core CSD services.

10. The first layer of protection requires a CSD to hold capital that is proportional to the risks stemming from its activities. The capital shall be sufficient to ensure that the CSD is adequately protected against operational, legal, custody, investment and business risks so that it can continue providing services as a going concern. Operational, legal and investment (credit, market and counterparty credit) risks are addressed in the same way as for CCPs with direct reference to

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[2] Principles for financial market infrastructures, issued by CPSS and IOSCO on April 2012.

[3] Monitoring tools for intraday liquidity management, issued by the Basel Committee on Banking Supervision in April 2013.

[4] Regulation (EU) No 575/2013 of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (the CRR) and Directive 2013/36/EU of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC (CRD IV).

[5] Commission Delegated Regulation (EU) No 152/2013 with regard to regulatory technical standards on capital requirements for central counterparties and Commission Delegated Regulation (EU) No 153/2013 with regard to regulatory technical standards on requirements for central counterparties.

[6] Regulation (EU) No 648/2012 of 4 July 2012 on OTC derivatives, central counterparties and trade repositories (EMIR).

the CRR. Custody risk is included in the operational risk charge. Capital requirements for business risk can be addressed as a percentage of the gross operational expenses or via a scenario approach. Standardised methods are provided for each type of risk. Advanced approaches for the purposes of measuring risk are permitted but are either conditional to supervisory approval or subject to a minimum prudential level to guarantee a level playing field.

2.2 Article 54 of the CSD-R – Additional capital surcharge

11. Article 54 of the CSD-R mandates the EBA to specify the additional risk-based capital surcharge for CSDs providing banking-type ancillary services and separate legal entities (designated credit institutions) in order to reflect the additional risks, including intra-day credit and liquidity risks.

12. The methodology proposed in the CP is based on the average of the five highest aggregated intraday exposures over the most recent calendar year and the assumption that the corresponding collateral loses 5% of its market value. The risk-weighted residual exposure amounts shall be calculated in accordance with the credit risk methodologies set out in the CRR assuming that those exposures are end-of-the-day exposures.

2.3 Article 59 of the CSD-R – Credit and liquidity risk including intra-day credit and liquidity risk

13. Article 59 of the CSD-R introduces prudential requirements for monitoring, measuring, managing and reporting credit and liquidity risks, including those that occur intra-day, resulting from the provision of banking-type ancillary services. In addition, Article 59(3) sets out requirements for collateral, and that appropriately conservative haircuts and concentration limits are to be applied in specific situations if collateral is other than highly liquid with minimal market and credit risk.

14. These draft RTS are therefore divided into three parts, the first covering collateral management, the second credit risk and the third the liquidity risk framework. The final draft RTS accept that the banking service provider is also subject to the requirements of the CRR, and therefore focus on the areas where the CSD-R objectives are not met by the CRR. It should be noted that the draft RTS also follow the CPSS-IOSCO principles for market infrastructures.

15. The chapter on credit risk specifies the framework for measuring, monitoring and managing intra-day credit risk given that the CRR covers credit risk in the long term only and currently there is no framework for intra-day credit risk. The EBA also analysed the current practices of I-CSDs.

16. The mandate for liquidity risk is similar to the mandate for credit risk. The section on monitoring intraday liquidity risks follows several principles of the BCBS paper ‘Monitoring Intraday Liquidity Risk’. The management section of the draft RTS transposes the monitoring metrics into a liquid asset requirement to mitigate intra-day liquidity exposures.

3. Draft regulatory technical standards on certain prudential requirements for central securities depositories (CSDs)

EUROPEAN BANKING AUTHORITY

COMMISSION DELEGATED REGULATION (EU) …/..

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[…]

supplementing Regulation (EU) No 909/2014 of the European Parliament and of the Council with regard to regulatory technical standards on certain prudential requirements for central securities depositories and designated credit institutions offering banking-type ancillary services

THE EUROPEAN COMMISSION,

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

Having regard to Regulation (EU) No 909/2014 of the European Parliament and of the Council of 23 July 2014 on improving securities settlement in the European Union and on central securities depositories and amending Directives 98/26/EC and 2014/65/EU and Regulation (EU) No 236/2012[7], and in particular the third subparagraph of Article 47(3), the third subparagraph of Article 54(8) and the third subparagraph of Article 59(5) thereof,

Whereas:

(1) Regulation (EU) No 909/2014 establishes, among other matters, prudential requirements for central securities depositories (CSDs) to ensure that they are safe and sound and comply at all times with capital requirements. Such capital requirements ensure that a CSD is at all times adequately capitalised against the risks to which it is exposed and that it is able to conduct an orderly winding-down or restructuring of its activities if necessary.

(2) Given that the provisions of Regulation (EU) No 909/2014 concerning credit and liquidity risks relating to CSDs and designated credit institutions explicitly require that their internal rules and procedures allow them to monitor, measure and manage exposures and liquidity needs not only with respect to the individual participants but also with respect to participants that belong to the same group and who are counterparties of the CSD, such provisions should apply to groups of undertakings consisting of a parent undertaking and its subsidiaries.

(3) For the purposes of this Regulation, the relevant recommendations of the Principles for Financial Market Infrastructures issued by the Committee on Payment and Settlement Systems and the International Organization of Securities Commissions

[7] Regulation (EU) No 236/2012 of the European Parliament and of the Council of 14 March 2012 on short selling and certain aspects of credit default swaps, OJ L 257, 28.8.2014, p. 1.

('CPSS-IOSCO Principles') [8] have been taken into account. The treatment of capital of credit institutions under Regulation (EU) No 575/2013 of the European Parliament and of the Council[9] has also been taken into account given that CSDs are to a certain extent exposed to risks that are similar to the risks incurred by credit institutions.

(4) It is appropriate for the definition of capital in this Regulation to mirror the definition of capital laid down in Regulation (EU) No 648/2012 of the European Parliament and of the Council[10] (EMIR). Such a definition is the most suitable in relation to the regulatory requirements given that the definition of capital in Regulation (EU) No 648/2012 was specifically designed for market infrastructures. CSDs authorised to provide banking-type ancillary services under Regulation (EU) No 909/2014 are required to meet capital requirements under this Regulation and own funds requirements under Regulation (EU) No 575/2013 simultaneously. They are required to meet the own funds requirements laid down in Regulation (EU) No 575/2013 with instruments that meet the definition of capital in that Regulation. In order to avoid conflicting or duplicative requirements and considering that the methodologies used for the calculation of the additional capital surcharge for CSDs under Regulation (EU) No 909/2014 are closely related to the ones provided in Regulation (EU) No 575/2013, CSDs offering banking-type ancillary services should be allowed to meet the additional capital requirements of this Regulation with the same instruments meeting the requirements laid down in either Regulation (EU) No 575/2013 or Regulation (EU) No 909/2014.

(5) In order to ensure that, if required, a CSD would be able to organise the restructuring of its activities or an orderly winding-down, a CSD should hold capital together with retained earnings and reserves that are sufficient, at all times, to withstand operational expenses over a period of time during which the CSD is able to reorganise its critical operations, including by recapitalising, replacing management, revising its business strategies, revising cost or fee structures and restructuring the services that it provides. Given that during the winding-down or restructuring of its activities, a CSD still needs to continue its usual operations and even though the actual expenses during a wind-down or restructuring of the operations of a CSD may be significantly higher than the gross annual operational expenses because of the restructuring or wind-down costs, the use of gross annual operational expenses as a benchmark for calculating the capital required should be an appropriate approximation of the actual expenses during the winding-down or restructuring of the operations of a CSD.

(6) Similarly to point (a) of Article 36(1) of Regulation (EU) No 575/2013, which requires institutions to deduct losses for the current financial year from the Common Equity Tier 1 capital, the role of net income in covering or absorbing the risks arising from adverse changes in the business conditions should also be recognised in this Regulation. Therefore, only in cases where the net income is insufficient to cover losses arising from the crystallisation of business risk, those losses have to be covered

[8] Principles for Financial Market Infrastructures, Committee on Payment and Settlement Systems -Bank for International Settlements, and Technical Committee of the International Organisation of Securities Commissions, April 2012.

[9] Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012, OJ L 176, 27.6.2013, p.1.

[10] Regulation (EU) No 648/2012 of the European Parliament and of the Council of 4 July 2012 on OTC derivatives, central counterparties and trade repositories, (OJ L 201, 27.7.2012, p.1).

by own funds. Expected figures for the current year to take into account new circumstances should also be considered where data from the previous year are not available, such as in the case of newly established CSDs. In line with similar provisions related to Regulation (EU) 648/2012, CSDs should be required to hold a minimum prudential amount of capital against business risk in order to guarantee a minimum prudential treatment.

(7) In accordance with the CPSS-IOSCO Principles, tangible and intangible assets' amortisation and depreciation costs can be deducted from gross operational expenses for the calculation of the capital requirements. Since those costs do not generate actual cash flows that need to be backed by capital, such deductions should be applicable to the capital requirements for business risk and to those covering winding-down or restructuring.

(8) Since the time necessary for an orderly winding-down or restructuring strictly depends on the services provided by any individual CSD and on the market environment in which it operates, in particular on the possibility that another CSD can take on part or all of its services, the number of months required for restructuring of its activities or winding-down should be based on the CSD's own estimate. However, this period of time should not be less than the minimum number of months required for restructuring or winding-down provided for in Article 47 of Regulation (EU) No 909/2014 in order to ensure a prudent level of capital requirements.

(9) A CSD should design scenarios for restructuring of its activities or winding-down that are adapted to its business model. However, in order to obtain a harmonised application in the Union and to ensure that prudentially sound requirements are satisfied, the discretion on the design of such scenarios should be limited by well-defined criteria.

(10) Regulation (EU) No 575/2013 should be the relevant benchmark for the purpose of establishing the capital requirements for CSDs. In order to ensure consistency with that Regulation, the methodologies for the calculation of operational risk should also be understood as covering legal risk for the purposes of this Regulation.

(11) A failure in the custody of securities held on behalf of a participant would materialise as either a cost to the participant or as a cost for the CSD that would face legal claims. Therefore, rules for the calculation of the regulatory capital for operational risk already take into account the custody risk. For the same reasons, custody risk for securities held through a link with another CSD should not be subject to any additional regulatory capital charge but should be considered as part of the regulatory capital for operational risk. Similarly, custody risk faced by a CSD on own assets held by a custodian bank or other CSDs should not be double-counted and no additional regulatory capital should be required.

(12) A CSD may also face investment risks with regard to the assets that it owns or with regard to the investments that it makes using participants' deposits, collateral, loans towards the participants or any other exposure under the allowed banking-type ancillary services. Investment risk is the risk of loss faced by a CSD when it invests its own or its participants' resources, such as collateral. Provisions set out in Directive

2013/36/EU of the European Parliament and of the Council[11], Regulation (EU) No 575/2013 and Delegated Regulation (EU) No 152/2013[12] should be an appropriate benchmark for the purpose of establishing capital requirements to cover credit risk, counterparty credit risk and market risks that may arise from the investments of a CSD.

(13) Given the nature of the activities of CSDs, a CSD assumes business risk due to potential changes in general business conditions that are likely to impair its financial position following a decline in its revenues or an increase in its expenses and that result in a loss that should be charged against its capital. Given that the level of business risk is highly dependent on the individual situation of each CSD and it can be caused by various factors, the capital requirement of this Regulation should be based on a CSD's own estimate and the methodology used for such an estimate should be proportional to the scale and complexity of the CSD's activities. A CSD should develop its own estimate of the capital required against business risk under a set of stress scenarios in order to cover the risks that are not already captured by the methodology used for operational risk. In order to ensure a prudent level of the capital requirements for business risk when making a calculation based on self-designed scenarios, a minimum level of capital, in the form of a prudential floor, should be introduced.

(14) References to a 'CSD-banking service provider' describe the entities that provide banking-type ancillary services to users of CSD services in accordance with Regulation (EU) No 909/2014. These entities are either designated credit institutions or CSDs authorised to provide banking-type ancillary services in accordance with Article 54(2) of Regulation (EU) No 909/2014.

(15) The additional capital surcharge for risks related to banking-type ancillary services should cover all the risks related to the provision of intraday credit to participants or other CSD users. Where overnight or longer credit exposures result from the provision of intraday credit, the corresponding risks should be measured and addressed by using the methodologies already laid down in Part Three, Title II, Chapter 2, for the Standardised Approach, and 3, for the Internal Ratings Based Approach (IRB Approach), of Regulation (EU) No 575/2013, given that that Regulation provides prudential rules for measurement of credit risk resulting from overnight or longer credit exposures. Intraday credit risks, however, require special treatment since the methodology for their measurement is not explicitly provided for in Regulation (EU) No 575/2013 or other applicable Union legislation. As a result, the methodology that specifically addresses intraday credit risk should be sufficiently risk-sensitive to take into account the quality of the collateral, the credit quality assessment of the participants and the actual observed intraday exposures. At the same time, the methodology should provide proper incentives to the providers of banking-type ancillary services, including the incentive to collect the highest quality of collateral

[11] Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, OJ L 176, 27.6.2013, p. 338.

[12] Commission Delegated Regulation (EU) No 152/2013 of 19 December 2012 supplementing Regulation (EU) No 648/2012 of the European Parliament and of the Council with regard to regulatory technical standards on capital requirements for central counterparties, OJ L 52, 23.2.2013, p.37.

and select creditworthy counterparties. Although providers of banking-type ancillary services have the obligation to properly assess and test the level and value of collateral and haircuts, the methodology used to determine the additional capital surcharge for intraday credit risk should nevertheless cater to and provide enough capital for the case where a sudden decrease in the value of the collateral exceeds estimates and results in partially uncollateralised residual credit exposures.

(16) The calculation of the capital surcharge for risks arising from providing banking-type ancillary services requires taking into account past information on intraday credit exposures. As a result, in order to be able to calculate that capital surcharge, CSD-banking service providers should record at least one year of data concerning their intraday credit exposures; otherwise they are not able to identify the relevant exposures based on which the calculation is done. Consequently, CSD-banking service providers should not be required to meet the own funds requirement corresponding to the capital surcharge until after they are able to collect all the information necessary to perform the calculation of the surcharge.

(17) Article 54(8) of Regulation (EU) No 909/2014 requires the development of rules to determine the additional capital surcharge referred to in point (d) of Article 54(3) and point (e) of Article 54(4) of that Regulation. Further, that Article requires that additional surcharge reflects the intra-day credit risk resulting from the activities of Section C of the Annex to Regulation (EU) No 909/2014, and more in particular the provisions of intraday credit to participants in a securities settlement system or other users of CSD services. Therefore, intraday credit risk exposure should also include the loss that a CSD-banking service provider would face if a borrowing participant were to default.

(18) Point (d) of Article 59(3) of Regulation (EU) No 909/2014 relating to the credit risk of a CSD-banking service provider requires the collection of '*highly liquid collateral with minimal credit and market risk*'; on the other hand, point (d) of Article 59(4) of Regulation (EU) No 909/2014 relating to the liquidity risk of a CSD-banking service provider, requires availability of '*qualifying liquid resources*'. One such qualifying liquid resource is 'highly liquid collateral'. While it is understandable that the terminology used in each of the two cases is different, given the different nature of the risks involved and the correspondence to different concepts in the regulation of credit and liquidity risk, they both relate to a similarly high quality of providers or assets. Therefore, it would be appropriate to provide the same conditions to be met before a collateral or a liquidity resource in the form of collateral can qualify as pertaining to either the '*highly liquid collateral with minimal credit and market risk'* category', or to the '*qualifying liquid resources*' category, respectively.

(19) Point (d) of Article 59(3) of Regulation (EU) No 909/2014 requires that a CSD-banking service provider accepts highly liquid collateral with minimal credit and market risk to manage its corresponding credit risk. The same allows for other types of collateral than highly liquid collateral with minimal credit and market risk to be used in specific situations, with the application of an appropriate haircut. To facilitate this, a clear hierarchy of the collateral quality should be developed in order to distinguish which collateral should be acceptable to fully cover credit risk exposures, which collateral is acceptable as liquidity resource and which collateral, although remaining acceptable for mitigating credit risk, requires qualifying liquidity sources. Collateral providers should not be impeded from freely substituting collateral depending on their

availability of resources or their asset-liability management strategies. Thus, common collateral practices, such as the reliance on participants' pledge accounts, where the collateral is deposited by the participant in its pledged accounts in order to fully cover any credit exposure should be allowed to be used for substituting collateral as long as the quality and liquidity of the collateral is monitored and complies with the requirements of this Regulation. Under such pledge account arrangement, the collateral is deposited by the participant in his pledged accounts in order to fully cover any credit exposure. In addition, a CSD-banking service provider should accept collateral taking into account the hierarchy specified, but may perform the liquidation of the accepted collateral, where necessary, in the most efficient way following a participant's default. However, from a prudential viewpoint, a CSD-banking service provider should be able to monitor the availability of collateral, its quality and its liquidity on an ongoing basis to fully cover credit exposures; it should also have arrangements in place with the borrowing participants to ensure that all the collateral requirements of this Regulation are met at all times.

(20) For the purposes of measuring intraday credit risk, CSD-banking service providers should be in a position to anticipate peak exposures for the day. This should not require a forecast of the exact number but should identify trends in those intraday exposures. This is further supported by the reference to 'anticipate peak exposures' also in Basel Committee on Banking Supervision standards[13].

(21) Title II of Part Three of Regulation (EU) No 575/2013 establishes the risk weights to be applied to credit exposures to the European Central Bank and other exempted entities. When measuring credit risk for regulatory purposes, such risk weights are widely understood as the best available reference. Therefore, the same methodology may be applied to intraday credit exposures. However, in order to guarantee the conceptual soundness of that approach, some correction is needed, in particular, when carrying out the computations using the credit risk framework of Part Three, Title II, Chapter 2, for the Standardised Approach, and 3, for the IRB Approach, of Regulation (EU) No 575/2013, the intraday exposures should be considered as end-of-day exposures as this is the assumption of that Regulation.

(22) Regulation (EU) No 648/2012 follows the CPSS-IOSCO Principles, as referred to in Recital 90 of that Regulation. Further, there is an explicit reference to Article 46(3) of Regulation (EU) No 648/2012 in Article 59(5) of Regulation (EU) No 909/2014. Therefore, this aims to ensure that the use of bank guarantees or letters of credit, where appropriate, follows the standards of the CPSS-IOSCO Principles and meets the similar requirements laid down in Regulation (EU) No 648/2012. However, when bank guarantees are used in relation to credit exposures that may arise from interoperable CSD links, appropriate alternative risk mitigants should be considered as long as they provide an equal or higher level of protection than the provisions laid out in Regulation (EU) No 648/2012. Therefore, a bank guarantee protecting an interoperable CSD link that relies on alternative risk mitigants should only cover the credit exposure between the two linked CSDs. When the credit risk materialises, the liquidity needs of non-defaulting CSDs have to be covered by a timely settlement of the guarantors' obligations, or alternatively, by qualifying liquidity resources.

[13] Basel Committee on Banking Supervision, http://www.bis.org/publ/bcbs248.pdf

(23) Point (d) of Article 59(4) of Regulation (EU) No 909/2014 requires that CSD-banking service providers mitigate liquidity risks with qualifying liquid resources in each currency. As a result, non-qualifying liquid resources cannot be used to meet the requirements set out in that Article. Nevertheless, nothing precludes non-qualifying liquid resources, such as currency swaps, from being used in the daily liquidity management in addition to the qualifying liquid resources. This is also consistent with international standards reflected in CPSS-IOSCO Principles. Non-qualifying liquid resources should therefore be measured and monitored for that purpose.

(24) Liquidity risk can potentially arise from any of the banking-type ancillary services performed by the CSD. The management framework for liquidity risks should identify the risks arising from the different banking-type ancillary services, including securities lending and distinguish their management as appropriate.

(25) In order to cover all of the liquidity needs, including the intraday liquidity needs of a CSD-banking service provider, CSD's liquidity risk management framework should ensure that the payment and settlement obligations are effected as they fall due, including intraday obligations, in all settlement currencies of the securities settlement system operated by a CSD.

(26) Given that all liquidity risks, except intraday, are already covered by Directive 2013/36/EU and Regulation (EU) No 575/2013, this Regulation should focus on intraday risks.

(27) Given that CSD-banking service providers are systemically-important market infrastructures, it is essential to ensure that a CSD-banking service provider manages its credit and liquidity risks in a conservative manner. As a result, a CSD-banking service provider should be permitted to grant only uncommitted credit lines to borrowing participants in the course of the provision of banking-type ancillary services as referred to in Regulation (EU) No 909/2014.

(28) In order to ensure that the risk management procedures of a CSD-banking service provider are sufficiently sound even in adverse conditions, the stress testing of the CSD-banking service provider's liquid financial resources should be rigorous and forward looking. For the same reason, tests should consider a range of extreme but plausible scenarios and be conducted for each relevant currency offered by the CSD-banking service provider taking into account the possible failure of one of the prearranged funding arrangements. Scenarios should include but not be limited to the default of two of the CSD-banking service provider's largest participants in that currency. This is necessary in order to establish a rule that is on the one hand prudent, as it takes into account the fact that other participants are also capable of generating liquidity risk, besides the largest one; and, on the other hand, a rule that is also proportionate to the objective, as it does not take into account those other participants that present a lesser potential for generating liquidity risk.

(29) Point (c) of Article 59(4) of Regulation (EU) No 909/2014 requires CSD-banking service providers to ensure sufficient liquid resources in all relevant currencies under a wide range of potential stress scenarios. Therefore, rules specifying the frameworks and tools for the managing of liquidity risk in stress scenarios, should prescribe a methodology for the identification of currencies that are relevant for the management of liquidity risk. The identification of relevant currencies should be based on materiality considerations, rely on the net cumulative liquidity exposure identified and

based on data collected over an extended and well-defined period of time. In addition, in order to maintain a coherent regulatory framework in the Union, the most relevant Union currencies identified under the Delegated Act *[add reference to ESMA RTS on relevant currencies]* under Article 12 of Regulation (EU) No 909/2014 should be included by default as relevant currencies.

(30) The collection of sufficient data for identifying all other currencies than the most relevant EU currencies requires a minimum time period to elapse from the date of authorisation of the CSD-banking service providers until the end of that time period. Therefore, the use of alternative methods to identify all other currencies that the most relevant EU currencies should be allowed for the first year following the authorisation of CSD-banking service providers under the new regulatory framework established by Regulation (EU) No 909/2014 for those CSD-banking service providers that already provide banking-type ancillary services at the date of entry into force of the technical standards referred to in Article 69 of Regulation (EU) No 909/2014. This transitional arrangement should not affect the requirement for CSD-banking service providers to ensure sufficient liquid resources as such, but only the identification of those currencies that are subject to stress testing for the purpose of liquidity management.

(31) Point (d) of Article 59(4) of Regulation (EU) No 909/2014 requires the CSD-banking service providers to have prearranged and highly reliable funding arrangements in place to ensure that collateral that is provided by a defaulting client can be converted into cash even in extreme but plausible market conditions. The same Regulation requires the CSD-banking service provider to mitigate intraday risks with highly liquid collateral with minimal credit and market risk. Given that liquidity has to be readily available, a CSD-banking service provider should be able to address any liquidity need on a same day basis. Given that CSD-banking service providers may operate in multiple time-zones, the provision of converting collateral into cash via prearranged funding arrangements on the same-day basis should be applied in consideration of the opening hours of the local payment systems of each individual currency it applies to.

(32) The provisions in this Regulation are closely linked, since they deal with the prudential requirements for CSDs. To ensure coherence between those provisions, which should enter into force at the same time, and to facilitate a comprehensive view and compact access to them by persons subject to those obligations, it is desirable to include all of the regulatory technical standards required by Regulation (EU) No 909/2014 into a single Regulation.

(33) This Regulation is based on the draft regulatory technical standards submitted by the European Banking Authority to the Commission.

(34) The European Banking Authority has worked in close cooperation with the European System of Central Banks (ESCB) and the European Securities and Markets Authority (ESMA) before submitting the draft technical standards on which this Regulation is based. It has also 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 opinion of the Banking Stakeholder Group established in

accordance with Article 37 of Regulation (EU) No 1093/2010 of the European Parliament and Council[14],

HAS ADOPTED THIS REGULATION:

TITLE I

Capital requirements for all CSDs referred to in Article 47 of Regulation (EU) No 909/2014

Article 1

Overview of requirements regarding the capital of a CSD

1. For the purposes of Article 47(1) of Regulation (EU) 909/2014, a central securities depository ('CSD') shall hold at all times, together with retained earnings and reserves, the amount of capital, specified in Article 3 of this Regulation.

2. The capital shall be held in the form of capital instruments that meet the conditions set out in Article 2 of this Regulation.

Article 2

Conditions regarding capital instruments

3. For the purposes of Article 1, a CSD shall hold capital instruments that meet all of the following conditions:

   (a) they are subscribed capital within the meaning of Article 22 of Council Directive 86/635/EEC[15];

   (b) they have been paid up, including the related share premium accounts;

   (c) they fully absorb losses in going concern situations;

   (d) in the event of bankruptcy or liquidation, they rank after all other claims.

4. For the purposes of paragraph 1, a CSD authorised in accordance with point (a) of Article 54(2) of Regulation (EU) No 909/2014 to provide banking-type ancillary services may hold capital instruments that qualify as own funds instruments as referred

[14] 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).

[15] Council Directive 86/635/EEC of 8 December 1986 on the annual accounts and consolidated accounts of banks and other financial institutions, OJ L 372, 31.12.1986, p. 1.

to in point 119 of Article 4(1) of Regulation (EU) No 575/2013 subject to any deductions in that Regulation.

Article 3

Level of capital requirements for a CSD

1. A CSD shall hold capital, together with retained earnings and reserves, which shall be at all times more than or equal to the sum of:

   (a) the CSD's capital requirements for operational, legal and custody risks, referred to in point (a) of Article 47(1) of Regulation (EU) No 909/2014, calculated in accordance with Article 4;

   (b) the CSD's capital requirements for investment risks, referred to in point (a) of Article 47(1) of Regulation (EU) No 909/2014, calculated in accordance with Article 5;

   (c) the CSD's capital requirements for business risks, referred to in point (a) of Article 47(1) of Regulation (EU) No 909/2014, calculated in accordance with Article 6;

   (d) the CSD's capital requirements for winding-down or restructuring its activities, referred to in point (b) of Article 47(1) of Regulation (EU) No 909/2014, calculated in accordance with Article 7.

2. A CSD shall have procedures in place to identify all sources of the risks referred to in paragraph 1.

Article 4

Level of capital requirements for operational, legal and custody risks

1. A CSD authorised in accordance with point (a) of Article 54(2) of Regulation (EU) No 909/2014 to provide banking-type ancillary services and with permission to use the Advanced Measurement Approaches ('AMA') referred to in Articles 321 to 324 of Regulation (EU) No 575/2013, shall calculate its capital requirements for operational, legal and custody risks in accordance with the provisions of that Regulation applicable to the AMA.

2. A CSD authorised in accordance with point (a) of Article 54(2) of Regulation (EU) No 909/2014 to provide banking-type ancillary services and using the Standardised Approach for operational risk as referred to in Articles 317 to 320of Regulation (EU) No 575/2013, shall calculate its capital requirements for operational, legal and custody

risks in accordance with the provisions of that Regulation applicable to the Standardised Approach for operational risk referred to in Articles 317 to 320 thereof.

3. A CSD that satisfies any the following conditions shall calculate its capital requirements for operational, legal and custody risks in accordance with the provisions of the Basic Indicator Approach referred to in Articles 315 and 316 of Regulation (EU) No 575/2013:

   (a) A CSD that is not authorised in accordance with Article 54(2) of Regulation (EU) No 909/2014;

   (b) a CSD that is authorised in accordance with point (a) of Article 54(2) of Regulation (EU) No 909/2014 but which does not have permission to use the AMA referred to in Articles 321 to 324 of Regulation (EU) No 575/2013;

   (c) A CSD that is authorised in accordance with point (a) of Article 54(2) of Regulation (EU) No 909/2014 but which does not have permission to use the Standardised approach referred to in Articles 317 to 320 of Regulation (EU) No 575/2013.

Article 5

Level of capital requirements for investment risk

1. A CSD shall calculate its capital requirements for investment risk as the sum of the following:

   (a) 8% of the CSD’s risk-weighted exposure amounts relating to both of the following:

      (i) credit risk in accordance with paragraph 2;

      (ii) counterparty credit risk in accordance with paragraph 3;

   (b) the CSD’s capital requirements for market risk in accordance with paragraphs 4 and 5.

2. For the calculation of a CSD’s risk-weighted exposure amounts for credit risk, the following shall apply:

   (a) where the CSD is not authorised in accordance with point (a) of Article 54(2) of Regulation (EU) No 909/2014 to provide banking-type ancillary services, the CSD shall apply the Standardised Approach for credit risk referred to in Articles 107 to 141 of Regulation (EU) No 575/2013 in combination with Article 192 to 241 of that Regulation on credit risk mitigation;

(b) where a CSD is authorised under point (a) of Article 54(2) of Regulation (EU) No 909/2014 to provide banking-type ancillary services but does not have permission to use the Internal Ratings Based Approach (IRB Approach) set out in Articles 142 to 191 of Regulation (EU) No 575/2013, the CSD shall apply the Standardised Approach for credit risk set out in Articles 107 to 141 of Regulation (EU) No 575/2013 in combination with the provisions on credit risk mitigation set out in Articles 192 to 241 of Regulation (EU) No 575/2013;

(c) where a CSD is authorised in accordance with point (a) of Article 54(2) of Regulation (EU) No 909/2014 to provide banking-type ancillary services and has permission to use the IRB Approach, the CSD shall apply the IRB Approach for credit risk provided for in Articles 142 to 191 of Regulation (EU) No 575/2013 in combination with the provisions on credit risk mitigation set out in Articles 192 to 241 of Regulation (EU) No 575/2013.

3. For the calculation of a CSD's risk-weighted exposure amounts for counterparty credit risk, a CSD shall use both of the following:

(a) one of the methods forest out in Articles 271 to 282 of Regulation (EU) No 575/2013;

(b) the Financial Collateral Comprehensive Method applying the volatility adjustments provided for in Articles 220 to 227 of Regulation (EU) No 575/2013.

4. A CSD that satisfies any of the following conditions shall calculate its capital requirements for market risk, in accordance with the provisions of Articles 102 to 106 and 325 to 361 of Regulation (EU) No 575/2013, including through the use of derogation for small trading book business provided in Article 94 of that Regulation:

(a) a CSD that is not authorised under point (a) of Article 54(2) of Regulation (EU) No 909/2014;

(b) a CSD that is authorised under point (a) of Article 54(2) of Regulation (EU) No 909/2014 but is not permitted to use internal models to calculate own funds requirements for market risk.

5. A CSD authorised under point (a) of Article 54(2) of Regulation (EU) No 909/2014 to provide banking-type ancillary services and permitted to use internal models to calculate own funds requirements for market risk, shall calculate its capital requirements for market risk in accordance with Articles 102 to 106 and 362 to 376 of Regulation (EU) No 575/2013.

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Article 6

Capital requirements for business risk

1. The capital requirements of a CSD for business risk shall be whichever of the following is higher:

   (a) the estimate resulting from the application of paragraph 2, minus whichever of the following is the lowest:

      (i) the net income after tax of the last audited financial year;

      (ii) the expected net income after tax for the current financial year;

      (iii) the expected net income after tax for the most past financial year where audited results are not yet available;

   (b) 25% of the CSD's annual gross operational expenses referred to in paragraph 3.

2. For the purposes of point (a) of paragraph 1, a CSD shall apply all of the following:

   (a) estimate the capital necessary to cover losses resulting from business risk on reasonably foreseeable adverse scenarios relevant to its business model;

   (b) document the assumptions and the methodologies used to estimate the expected losses referred to in point (a);

   (c) review and update the scenarios referred to in point (a) at least annually.

3. For the calculation of a CSD's annual gross operational expenses, the following shall apply:

   (a) the CSD's annual gross operational expenses shall consist of at least the following:

      (i) total personnel expenses including wages, salaries, bonuses and social costs;

      (ii) total general administrative expenses, and, in particular, marketing and representation expenses;

      (iii) insurance expenses;

      (iv) other employees' expenses and travelling;

      (v) real estate expenses;

      (vi) IT support expenses;

      (vii) Telecommunications expenses;

(viii) postage and data transfer expenses;

(ix) external consultancy expenses;

(x) tangible and intangible assets' depreciation and amortisation;

(xi) impairment and disposal of fixed assets;

(b) the CSD's annual gross operational expenses shall be determined in accordance with one of the following:

(i) the International Financial Reporting Standards (IFRS) adopted pursuant to Regulation (EC) No 1606/2002 of the European Parliament and of the Council[16];

(ii) Council Directives 78/660/EEC[17], 83/349/EEC[18] and 86/635/EC[19];

(iii) generally accepted accounting principles of a third country determined to be equivalent to IFRS in accordance with Regulation (EC) No 1569/2007[20] or accounting standards of a third country the use of which is permitted in accordance with Article 4 of that Regulation;

(c) The CSD may deduct tangible and intangible assets' depreciation and amortisation from annual gross operational expenses;

(d) the CSD shall use the most recent audited information from their annual financial statement;

(e) where the CSD has not completed business for one year from the date it starts its operations, it shall apply the gross operational expenses projected in its business plan.

[16] Regulation (EC) No 1606/2002 of the European Parliament and of the Council of 19 July 2002 on the application of international accounting standards, OJ L 243, 11.9.2002, p. 1.

[17] Fourth Council Directive 78/660/EEC of 25 July 1978 based on Article 54 (3) (g) of the Treaty on the annual accounts of certain types of companies, OJ L 222, 14.8.1978, p. 11.

[18] Seventh Council Directive 83/349/EEC of 13 June 1983 based on the Article 54 (3) (g) of the Treaty on consolidated accounts, OJ L 193, 18.7.1983, p. 1.

[19] Council Directive 86/635/EEC of 8 December 1986 on the annual accounts and consolidated accounts of banks and other financial institutions, OJ L 372, 31.12.1986, p. 1.

[20] Commission Regulation (EC) No 1569/2007 of 21 December 2007 establishing a mechanism for the determination of equivalence of accounting standards applied by third country issuers of securities pursuant to Directives 2003/71/EC and 2004/109/EC of the European Parliament and of the Council, OJ L 340, 22.12.2007, p. 66.

Article 7

Capital requirements for winding-down or restructuring

A CSD shall calculate its capital requirements for winding down or restructuring by applying the following steps in sequence:

(a) estimate the time span required for winding-down or restructuring for all of the stress scenarios referred to in the Annex, consistently with the plan referred to in Article 47(2) of Regulation (EU) No 909/2014;

(b) divide the CSD's annual gross operational expenses determined in accordance with Article 6(3) by twelve ('monthly gross operational expenses');

(c) multiply the monthly gross operational expenses referred to in point (b) by the longer of the following points:

(i) the time span referred to in point (a);

(ii) six months.

TITLE II

Capital surcharge for CSDs authorised to offer banking-type of ancillary services and for designated credit institutions, as referred to in Article 54 of Regulation (EU) No 909/2014

Article 8

Capital surcharge resulting from the provision of intraday credit

1. For the purposes of calculating the additional capital surcharge resulting from the provision of intra-day credit, as set out in point (d) of Article 54(3) of Regulation (EU) No 909/2014, and in point (e) of Article 54(4) of that Regulation, a CSD authorised in accordance with point (a) of Article 54(2) of Regulation (EU) No 909/2014 to provide banking-type ancillary services and a credit institution designated by a CSD to provide banking-type ancillary services in accordance with point (b) of Article 54(2) of Regulation (EU) No 909/2014 ('CSD-banking service provider') shall apply the following steps in sequence:

   (a) it shall calculate, over the most recent calendar year, the average of the five highest intraday credit exposures ('peak exposures') resulting from providing the services set out in Section C of the Annex to Regulation (EU) No 909/2014;

   (b) it shall apply the haircuts to all the collateral collected in relation to the peak exposures, and shall assume that, after the application of the haircuts in accordance with Articles 222 to 227 of Regulation (EU) No 575/2013, collateral loses 5% of its market value;

   (c) it shall calculate the average of the own funds requirements with regard to the peak exposures calculated in accordance with paragraph 2 assuming that those exposures are end-of-the-day exposures ('capital surcharge').

2. For the calculation of the capital surcharge referred to in paragraph 1, institutions shall apply one of the following approaches:

   (a) the Standardised Approach for credit risk referred to in Articles 107-141 of Regulation (EU) No 575/2013, where they do not have permission to use the IRB Approach;

   (b) the IRB Approach and the requirements of Articles 142 to 191 of Regulation (EU) No 575/2013, where they have permission to use the IRB approach.

3. Where institutions apply the Standardised Approach for credit risk, in accordance with paragraph 2(a), the amount of each of the five peak exposures referred to in paragraph 1(a) shall be considered an exposure value within the meaning of Article 111 of Regulation (EU) No 575/2013. The requirements of Part Three, Title II, Chapter 4 of Regulation (EU) No 575/2013 that relate to Article 111 of that Regulation shall also apply.

4. Where institutions apply the IRB Approach for credit risk in accordance with paragraph 2(a) and the outstanding amount of each of the five peak exposures referred to in paragraph 1(a) shall be considered an exposure value in the meaning of Article 166 of Regulation (EU) No 575/2013 for the purpose of paragraph 2(b). The requirements of Part Three, Title II, Chapter 4 of Regulation (EU) No 575/2013 that relate to Article 166 of that Regulation, shall also apply.

5. The capital requirements of this Article shall apply twelve months after obtaining the authorisation to provide banking-type ancillary services pursuant to Article 55 of Regulation (EU) No 909/2014.

TITLE III

Prudential requirements applicable to credit institutions or CSDs authorised to provide banking-type ancillary services, as referred to in Article 59 of Regulation (EU) No 909/2014

CHAPTER I

Collateral and other equivalent financial resources for credit and liquidity risks

Article 9

General rules on collateral and other equivalent financial resources

1. A CSD-banking service provider shall fulfil the following conditions with regard to collateral:

   (a) it shall clearly distinguish the collateral from the other securities of the borrowing participant;

   (b) it shall accept collateral that meets either the conditions of Article 10, or other types of collateral that meets the requirements of Article 11 in the following hierarchy:

      (i) first accept as collateral all the securities in the account of the borrowing participant that meet the requirements of Article 10 and only those;

      (ii) then accept as collateral all the securities in the account of the borrowing participant that meet the requirements set out in Article 11(1) and only those;

      (iii) finally accept as collateral all the securities in the account of the borrowing participant that meet the requirements set out in Article 11(2), within the limits of available qualifying liquid resources referred to in Article 34 with the view to meeting the minimum liquid resources requirement referred to in Article 35(5);

   (c) it shall monitor on at least a daily basis the credit quality, market liquidity and price volatility of each security accepted as collateral and value it in accordance with Article 12;

   (d) it shall specify methodologies related to the haircuts applied to the collateral value in accordance with Article 13;

   (e) it shall ensure that the collateral remains sufficiently diversified to allow its liquidation within the periods referred to in Articles 10 and 11 without a significant market impact, in accordance with Article 14.

2. Collateral shall be provided by the counterparties under a security financial collateral arrangement as defined in point (c) of Article 2(1) of Directive 2002/47/EC of the European Parliament and of the Council[21] or under a title transfer financial collateral arrangement as defined in point (b) of Article 2(1) of that Directive.

3. A CSD-banking service provider shall fulfil the conditions of Article 15 and 16 with regard to other equivalent financial resources.

Article 10

Collateral for the purposes of point (d) of Article 59(3), and point (d) of Article 59(4) of Regulation (EU) No 909/2014

1. Collateral for the purposes of point (d) of Article Article 59(3), and point (d) of Article 59(4) of Regulation (EU) No 909/2014, that is of the best quality shall consist of debt instruments that meet all of the following conditions:

    (a) they are issued or explicitly guaranteed by one of the following:

        (i) a government;

        (ii) a central bank;

        (iii) one of the multilateral development banks listed in Article 117 of Regulation (EU) No 575/2013;

        (iv) the European Financial Stability Facility or the European Stability Mechanism;

    (b) the CSD can demonstrate that they have low credit and market risk based upon its own internal assessment employing a defined and objective methodology that does not exclusively rely on external opinions and that takes into consideration the country risk of the particular country where the issuer is established;

    (c) they are denominated in a currency the risks of which the CSD-banking service provider is able to manage;

    (d) they are freely transferable without any legal constraint or third party claims that impair their liquidation;

    (e) they fulfil one of the following requirements:

[21] Directive 2002/47/EC of the European Parliament and of the Council of 6 June 2002 on financial collateral arrangements (OJ L 168, 27.06.2002, p. 43).

(i) they have an active outright sale or repurchase agreement market, with a diverse group of buyers and sellers, including in stressed conditions and to which the CSD-banking service provider has reliable access;

(ii) they can be liquidated by the CSD-banking service provider through a prearranged and highly reliable funding arrangement as referred to in point (e) of Article 59(4) of Regulation (EU) No 909/2014 and specified in Article 38 of this Regulation;

(f) reliable price data on such debt instruments are published on at least a daily basis;

(g) they are readily available and convertible into cash on a same-day basis.

2. Collateral for the purposes of point (d) of Article 59(3), and point (d) of Article 59(4) of Regulation (EU) No 909/2014, that is of a quality lower than that referred to in paragraph 1, shall consist of transferable securities and money market instruments that meet all of the following conditions:

(a) the financial instruments have been issued by an issuer that has low credit risk based on an adequate internal assessment by the CSD-banking service provider, employing a defined and objective methodology that does not exclusively rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;

(b) the financial instruments have a low market risk based on an adequate internal assessment by the CSD-banking service provider, employing a defined and objective methodology that does not exclusively rely on external opinions;

(c) they are denominated in a currency the risks of which the CSD-banking service provider is able to manage;

(d) they are freely transferable and without any legal constraint or third party claims that impair their liquidation;

(e) they fulfil one of the following requirements:

(i) they have an active outright sale or repurchase agreement market, with a diverse group of buyers and sellers, to which the CSD-banking service provider can demonstrate reliable access, including in stressed conditions;

(ii) they can be liquidated by the CSD-banking service provider through a prearranged and highly reliable funding arrangement as referred to in point (e) of Article 59(4) of Regulation (EU) No 909/2014 and specified in Article 38 of this Regulation;

(f) they can be liquidated on a same-day basis;

(g) price data on these instruments are publicly available on a close to real-time basis;

(h) they are not issued by any of the following:

(i) the participant providing the collateral, or by an entity that is part of the same group as the participant, except in the case of a covered bond and only where the assets backing that bond are appropriately segregated within a robust legal framework and satisfy the requirements set out in this Article;

(ii) a CSD-banking service provider or an entity that is part of the same group as the CSD-banking service provider;

(iii) an entity whose business involves providing services critical to the functioning of the CSD-banking service provider, unless that entity is aUnion central bank or a central bank that issues a currency in which the CSD-banking service provider has exposures;

(iv) they are not otherwise subject to significant wrong-way risk in the meaning of Article 291 of Regulation (EU) No 575/2013.

Article 11

Other collateral

1. Other types of collateral to be used by a CSD-banking service provider shall consist of financial instruments that meet all of the following conditions:

(a) they are freely transferable without any legal constraint or third party claims that impair their liquidation;

(b) they are eligible at a central bank of the Union, where the CSD-banking service provider has access to routine credit at that central bank;

(c) they are denominated in a currency the risk of which the CSD-banking service provider is able to manage;

(d) the CSD-banking service provider has a prearranged funding arrangement with the type of creditworthy financial institution referred to in point (e) of Article 59(4) of Regulation (EU) No 909/2014 and specified in Article 38 of this Regulation, which provides for the conversion of these instruments into cash on a same-day basis.

2. For the purposes of (c) of Article 59(3) of Regulation (EU) No 909/2014, other type of collateral to be used by a CSD-banking service provider shall be financial instruments that meet the following conditions:

(a) they are freely transferable without any legal constraint or third party claims that impair their liquidation;

(b) they are denominated in a currency the risk of which the CSD-banking service provider is able to manage;

(c) the CSD-banking service provider has both of the following:

(i) a prearranged funding arrangement in accordance with point (e) of Article 59(4) of Regulation (EU) No 909/2014 and specified in Article 38 of this Regulation, so that these instruments can be liquidated within five business days;

(ii) qualifying liquid resources in accordance with Article 34 to a sufficient amount to ensure that it covers the time gap for liquidating such collateral in case of default of the participant.

Article 12

Collateral valuation

1. A CSD-banking service provider shall comply with the requirements of paragraphs 2 to 4.

2. A CSD-banking service provider shall establish collateral valuation policies and procedures that ensure the following:

(a) that the financial instruments referred to in Article 10 are valued mark-to-market on at least a daily basis;

(b) that the financial instruments referred to in Article 11(1) are valued on at least a daily basis, and, where such daily valuation is not possible, that they are valued on a mark-to-model basis;

(c) that the financial instruments referred to in Article 11(2) are valued on at least a daily basis, and where such daily valuation is not possible, that they are valued on a mark-to-model basis.

3. The methodologies for the mark-to-model valuation referred to in points (b) and (c) of paragraph 2 shall be fully documented.

4. A CSD-banking service provider shall review the adequacy of its valuation policies and procedures in all of the following cases:

(a) on a regular basis which shall be at least annually;

(b) where a material change affects the valuation policies and procedures.

Article 13

Haircuts

1. A CSD-banking service provider shall set the level of the haircuts as follows:

   (a) where collateral is eligible at the central bank to which the CSD-banking service provider has access to routine credit, the haircuts applied to that type of collateral by the central bank may be considered as the minimum haircut floor;

   (b) where collateral is not eligible at the central bank to which the CSD-banking service provider has access to routine credit, the haircuts applied by the central bank issuing the currency in which the financial instrument is denominated shall be considered as the minimum haircut floor.

2. The policies and procedures to determine haircuts shall take into account the possibility that the collateral may need to be liquidated in stressed market conditions and the time required to liquidate it.

3. The haircuts shall be determined taking into consideration the relevant criteria, including all of the following:

   (a) the type of asset;

   (b) the level of credit risk associated with the financial instrument;

   (c) the country of issuance of the asset;

   (d) the maturity of the asset;

   (e) the historical and hypothetical future price volatility of the asset in stressed market conditions;

   (f) the liquidity of the underlying market, including bid-ask spreads;

   (g) the foreign exchange risk, here applicable;

   (h) the wrong-way risk in the meaning of Article 291 of Regulation (EU) No 575/2013, where appliable.

4. The criteria referred to in point (b) of paragraph 3 shall be determined by an internal assessment of the CSD-banking service provider, based on a defined and objective methodology that does not exclusively rely on external opinions.

5. No collateral value shall be assigned to securities provided by an entity that belongs to the same group as the borrower.

6. The CSD-banking service provider shall ensure that the haircuts are calculated in a conservative manner to limit as far as possibleany pro-cyclicality.

7. The policies and procedures on haircuts shall be validated at least annually by an independent unit of the CSD-banking service provider and applicable haircuts shall be benchmarked with the central bank issuing the relevant currency, and other sources, where available.

8. The haircuts applied shall be reviewed by the CSD-banking service provider on at least a daily basis.

Article 14

Collateral concentration limits

1. A CSD-banking service provider shall have policies and procedures on collateral concentration limits in place that include the following:

    (a) policies and procedures to be followed where any breach of the concentration limits occurs;

    (b) the risk mitigation measures to be applied where the concentration limits defined in the policies are exceeded;

    (c) the timing of the expected implementation of measures under point (b).

2. The concentration limits within the total amount of collateral collected (‘collateral portfolio’) shall be set by taking into account all of the following criteria:

    (a) individual issuers considering their group structure;

    (b) country of the issuer;

    (c) type of issuer;

    (d) type of asset;

    (e) settlement currency;

    (f) collateral with credit, liquidity and market risk above minimum levels;

    (g) the eligibility of the collateral for the CSD-banking service provider to have access to routine credit at the central bank of issue;

    (h) each borrowing participant;

    (i) all borrowing participants.

    (j) financial instruments issued by issuers of the same type in terms of economic sector, activity, geographic region;

(k) the level of credit risk of the financial instrument or of the issuer determined by an internal assessment by the CSD-banking service provider, based on a defined and objective methodology that does not exclusively rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;

(l) the liquidity and the price volatility of the financial instruments.

3. A CSD-banking service provider shall ensure that no more than 10 % of its intraday credit exposure is guaranteed by any of the following:

(a) a single credit institution;

(b) a third country financial institution that is subject to and complies with prudential rules that are at least as stringent as those provided in Directive 2013/36/EU and Regulation (EU) No 575/2013, in accordance with Article 114(7) of that Regulation;

(c) a commercial entity that is part of the same group as the institution referred to in either point (a) or (b).

4. Where calculating the collateral concentration limits referred to in paragraph 2, a CSD-banking service provider shall aggregate its total exposure to a single counterpartyresulting from the amount of the cumulative credit lines, deposit accounts, current accounts, money-market instruments, and reverse repurchase facilities utilised by the CSD-banking service provider.

5. Where determining the collateral concentration limit for a CSD-banking service provider's exposure to an individual issuer, the CSD-banking service provider shall aggregate and treat as a single risk its exposure to all financial instruments issued by the issuer or by a group entity, explicitly guaranteed by the issuer or by a group entity.

6. A CSD-banking service provider shall ensure the adequacy of its collateral concentration limit policies and procedures at all times. It shall review its collateral concentration limits at least annually and whenever a material change occurs that affects the CSD-banking service provider's risk exposure.

7. A CSD-banking service provider shall inform the borrowing participants of the applicable collateral concentration limits and of any amendment to those limits pursuant to paragraph 6.

Article 15

Other equivalent financial resources

1. Other equivalent financial resources shall consist only of the financial resources or the credit protection referred to in paragraphs 2 to 4 as well as those referred to in Article 16.

2. Other equivalent financial resources may include commercial bank guarantees provided by a creditworthy financial institution that fulfils the requirements set out in in Article 38(2) or a syndicate of such financial institutions that meet all of the following conditions:

   (a) they are issued by an issuer that has low credit risk based on an adequate internal assessment by the CSD-banking service provider, employing a defined and objective methodology that does not exclusively rely on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;

   (b) they are denominated in a currency the risk of which the CSD-banking service provider is able to adequately manage;

   (c) they are irrevocable, unconditional and the issuer cannot rely on any legal or contractual exemption or defence to oppose the payment of the guarantee;

   (d) they can be honoured, on demand, within one business day, during the period of liquidation of the portfolio of the defaulting borrowing participant free of any regulatory, legal or operational constraint;

   (e) they are not issued by an entity that is part of the same group as the borrowing participant covered by the guarantee, or by an entity whose business involves providing services critical to the functioning of the CSD-banking service provider, unless that entity is an EEA central bank or a central bank issuing a currency in which the CSD-banking service provider has exposures;

   (f) they are not subject to significant wrong-way risk in the meaning of Article 291 of Regulation (EU) No 575/2013;

   (g) they are fully guaranteed by collateral that meets the following conditions:

      (i) it is not subject to wrong way risk in the meaning of Article 291 of Regulation (EU) No 575/2013 based on a correlation with the credit standing of the guarantor or the borrowing participant, unless that wrong way risk has been adequately mitigated by a haircut applied to the collateral;

      (ii) the CSD-banking service provider has prompt access to the collateral and it is bankruptcy remote in case of the simultaneous default of the borrowing participant and the guarantor;

      (iii) the suitability of the guarantor has been ratified by the management body of the CSD-banking service provider after a full assessment of the issuer and of the legal, contractual and operational framework of the guarantee in order to have a high level of comfort on the effectiveness of the guarantee, and notified to the relevant competent authority in accordance with Article 60(1) of Regulation (EU) No 909/2014.

3. Other equivalent financial resources may include bank guarantees issued by a central bank that meet all of the following conditions:

   (a) they are issued by a Union central bank or a central bank issuing a currency in which the CSD-banking service provider has exposures;

   (b) they are denominated in a currency the risk of which the CSD-banking service provider is able to adequately manage;

   (c) they are irrevocable, unconditional and the issuing central bank cannot rely on any legal or contractual exemption or defence to oppose the payment of the guarantee;

   (d) they are honoured within one business day.

4. Other equivalent financial resources may include capital, after deducting the capital requirements of Articles 1 to 8, but only for the purposes of covering exposures to central banks, multilateral development banks and international organisations that are not exempted in accordance with Article 23(2).

Article 16

Other equivalent financial resources for exposures in in interoperable links

Other equivalent financial resources may include bank guarantees and letters of credit ('bank guarantees'), used to secure credit exposures created between CSDs that establish interoperable links, that meet all of the following conditions:

(a) they cover only the credit exposures between the two linked CSDs;

(b) they have been issued by a consortium of creditworthy financial institutions that fulfil the requirements set out in Article 38(2), in which each of those financial institutions is obliged to pay the part of the total amount that has been contractually agreed upon;

(c) they are denominated in a currency the risk of which the CSD-banking service provider is able to adequately manage;

(d) they are irrevocable, unconditional and the issuing institutions cannot rely on any legal or contractual exemption or defence to oppose the payment of the letter of credit;

(e) they can be honoured, on demand, free of any regulatory, legal or operational constraint;

(f) they are not issued by:

   (i) an entity that is part of the same group as the borrowing CSD or a CSD with an exposure covered by the bank guarantee;

(ii) an entity whose business involves providing services critical to the functioning of the CSD-banking service provider;

(g) they are not subject to significant wrong-way risk in the meaning of Article 291 of Regulation (EU) No 575/2013;

(h) the CSD-banking service provider monitors the creditworthiness of the issuing financial institutions on an regular basis by independently assessing the creditworthiness of those institutions and by assigning and regularly reviewing internal credit ratings for each financial institution;

(i) they can be honoured during the period of liquidation within three business days from the moment when the defaulting CSD-banking service provider fails to meet its payment obligations when they are due;

(j) qualifying liquid resources referred to in Article 34 are available to a sufficient amount that covers the time gap until the time at which the bank guarantee has to be honoured in case of default of one of the linked CSDs;

(k) the risk of not having the full amount of the bank guarantee being paid by the consortium is mitigated by:

(i) establishing appropriate concentration limits ensuring that no financial institution, including its parent undertaking and subsidiaries, is part of the consortium guarantees for more than 10% of the total amount of the letter of credit;

(ii) limiting the credit exposure that is covered using the bank guarantee to the total amount of the bank guarantee minus either 10% of the total amount, or the amount guaranteed by the two credit institutions with the largest share of the total amount whichever is lower;

(iii) implementing additional risk mitigation measures such as a loss-sharing arrangements that are effective and have clearly defined rules and procedures;

(l) the arrangements are periodically tested and reviewed pursuant to Article 41(3) of Regulation (EU) No 909/2014.

CHAPTER II

Prudential framework for credit and liquidity risk

Article 17

General rules

1. For the purposes of the prudential requirements relating to the credit risk arising from the provision of banking-type ancillary services by a CSD-banking service provider in respect of each securities settlement system, as referred to in Article 59(3) and (5) of Regulation (EU) No 909/2014, a CSD-banking service provider shall comply with all requirements set out in Chapter II on monitoring, measuring, management, reporting and public disclosure of credit risk with regard to the following:

   (a) intraday credit risk and overnight credit risk;

   (b) relevant collateral and other equivalent financial resources used in relation to the risks referred to in point (a);

   (c) potential residual credit exposures;

   (d) reimbursement procedures and sanctioning rates.

2. For the purposes of the prudential requirements relating to the liquidity risk arising from the provision of banking-type ancillary services by a CSD-banking service provider in respect of each securities settlement system as referred to in Article 59(4) of Regulation (EU) No 909/2014, a CSD-banking service provider shall comply with all of the following:

   (a) the requirements of Section 2 for the monitoring, measuring, management, reporting and public disclosure of liquidity risks;

   (b) the requirements of Regulation (EU) No 575/2013 on monitoring, measuring, management, reporting and public disclosure of other liquidity risks than those covered by point (a).

Section 1

Credit risk

Article 18

Credit risk management framework

1. For the purposes of point (a) of Article 17(1), a CSD-banking service provider shall design and implement policies and procedures that comply with the following requirements:

(a) measure intraday and overnight credit risk in accordance with Sub-section 1;

(b) monitor intraday and overnight credit risk in accordance with Sub-section 2;

(c) manage intraday and overnight credit risk in accordance with Sub-section 3;

(d) measure, monitor and manage the collateral and other equivalent financial resources, as referred to in points (c) and (d) of Article 59(3) of Regulation (EU) No 909/2014, in accordance with Chapter I;

(e) analyses and plans how to address any potential residual credit exposures, in accordance with Sub-section 4;

(f) manage its reimbursement procedures and sanctioning rates, in accordance with Sub-section 5;

(g) report its credit risks in accordance with Sub-section 6;

(h) publicly disclose its credit risks in accordance with Sub-section 7.

2. The CSD-banking service provider shall review the policies and procedures referred to in paragraph 1 at least annually.

3. The CSD-banking service provider shall also review those policies and procedures whenever either of the following occurs and where either of the changes referred to in points (a) or (b) affects the risk exposure of the CSD-banking service provider:

(a) the policies and procedures are subject to a material change;

(b) where the CSD-banking service provider voluntarily carries out a change following the assessment referred to in Article 19.

4. The policies and procedures referred to in paragraph 1 shall include the preparation and update of a report relating to credit risks. That report shall include the following:

(a) the metrics referred to in Article 19;

(b) haircuts applied in accordance with Article 13, reported per type of collateral;

(c) changes to the policies or procedures referred to in paragraph 3.

5. The report referred to in paragraph 4 shall be subject to monthly review by the relevant committees established by the management body of the CSD-banking service provider. Where the CSD-banking service provider has designated one or more credit institutions by the CSD in accordance with point (b) of Article 54(2) of Regulation (EU) No 909/2014 (‘a different entity from that of the CSD’), the report referred to in paragraph 3 shall also be made available to the relevant risk committees of the CSD with the same monthly frequency.

6. Where the CSD-banking service provider breaches one or more of the concentration limits referred to in Article 14, it shall immediately report this to its relevant risk

committee, and, where it is a different entity from that of the CSD, to the relevant risk committee of the CSD.

Sub-section 1

Measurement of Credit Risks

Article 19

Measurement of intraday credit risk

1. A CSD-banking service provider shall identify and measure intraday credit risk exposures and anticipate peak intraday credit exposures by way of operational and analytical tools that identify and measure intraday credit exposures, and that record, in particular, all of the following metrics for each counterparty:

   (a) peak and average intraday credit exposures for banking-type ancillary services set out in Section C of the Annex to Regulation (EU) No 909/2014;

   (b) peak and average intraday credit exposures per borrowing participant, and further breakdown of collateral covering these credit exposures;

   (c) peak and average intraday credit exposures to other counterparties and, if it is secured by collateral, further breakdown of collateral covering these intraday credit exposures;

   (d) total value of intraday credit lines extended to participants;

   (e) further breakdown of credit exposures referred to in points (b) and (c) shall cover the following:

      (i) collateral that meets the requirements of Article 10;

      (ii) other collateral in accordance with Article 11(1);

      (iii) other collateral in accordance with Article 11(2);

      (iv) other equivalent financial resources in accordance with Article 15 and 16.

2. A CSD-banking service provider shall carry out the measurement referred to in paragraph 1 on an ongoing basis.

Where ongoing identification and measurement of intraday credit risk is not possible due to the dependency on the availablity of external data, the CSD-banking service provider shall measure intraday credit exposures on the highest frequency possible and on at least a daily basis.

Article 20

Measurement of overnight credit exposures

A CSD-banking service provider shall measure the overnight credit exposures for banking-type ancillary services set out in Section C of the Annex to Regulation (EU) No 909/2014 by recording the outstanding credit exposures from the previous day on a daily basis, at the end of the business day.

Sub-section 2

Monitoring Credit Risks

Article 21

Monitoring intraday credit exposures

For the purposes of monitoring intraday credit risk, a CSD- banking service provider shall, in particular:

(a) monitor on an ongoing basis, through an automatic reporting system, the intraday credit exposures arising from the banking-type ancillary services referred to in Section C of the Annex to Regulation (EU) No 909/2014;

(b) maintain, for a period of at least ten years, a record of the daily intraday peak and average intraday credit exposures arising from banking-type ancillary services referred to in Section C of the Annex to Regulation (EU) No 909/2014;

(c) record the intraday credit exposures stemming from each entity on which intraday credit exposures are incurred, including the following:

  (i) issuers;

  (ii) participants to the securities settlement system operated by a CSD, at entity and group levels;

  (iii) CSDs with interoperable links;

  (iv) banks and other financial institutions used to make or receive payments;

(d) fully describe how the credit risk management framework takes into account the interdependencies and the multiple relationships that a CSD-banking service provider may have with each of the entities referred to in point (c);

(e) specify, for each counterparty, how the CSD-banking service provider monitors the concentration of its intraday credit exposures, including its exposures to the entities of the groups comprising the entitie listed in point (c);

(f) specify how the CSD-banking service provider assesses the adequacy of the haircuts applied to the collateral collected;

(g) specify how the CSD-banking service provider monitors the collateral coverage of the credit exposures and the coverage of credit exposures with other equivalent financial resources.

Article 22

Monitoring overnight credit risk

For the purposes of monitoring overnight credit exposures, a CSD-banking service provider shall, in relation to the overnight credit:

(a) maintain a record of the sum of the actual end of day credit exposures, for a period of at least ten years;

(b) record the information referred to in point (a) on a daily basis.

Sub-section 3

Management of Intraday Credit Risks

Article 23

General requirements for the management of intraday credit risk

1. For the purposes of management of intraday credit risk, a CSD-banking service provider shall:

   (a) specify how it assesses the design and operation of its credit risk management framework relating to all the activities listed in Section C of the Annex to Regulation (EU) No 909/2014;

   (b) only grant credit lines that are unconditionally cancellable at any time by the CSD-banking service provider and without prior notice to the borrowing participants of the securities settlement system operated by the CSD;

   (c) where a bank guarantee referred to in Article 16 is used in interoperable links, a CSD-banking service provider shall assess and analyse the interconnectedness that may arise from having the same participants providing that bank guarantee.

2. The following exposures are exempt from the application of Articles 9 to 15 and 24:

(a) exposures to the members of the ESCB and other Member States' bodies performing similar functions and other Union public bodies charged with or intervening in the management of the public debt;

(b) exposures to one of the multilateral development banks listed in Article 117(2) of Regulation (EU) No 575/2013;

(c) exposures to one of the international organisations listed in Article 118 of Regulation (EU) No 575/2013;

(d) exposures to public sector entities within the meaning of Article 4(8) of Regulation (EU) No 575/2013 where they are owned by central governments and have explicit arrangements provided by central governments guaranteeing their credit exposures;

(e) exposures to third country central banks that are denominated in the domestic currency of that central bank provided that the Commision has adopted an implementing act in accordance with Article 114(7) of Regulation (EU) No 575/2013 confirming that this third country is considered as applying supervisory and regulatory arrangements at least equivalent to those applied in the Union.

Article 24

Credit limits

For the purposes of managing intraday credit risk, and where setting the credit limits to an individual borrowing participant at the group level, a CSD-banking service provider shall comply with all of the following:

(a) assess the creditworthiness of the borrowing participant based on a methodology that does not exclusively rely on external opinions;

(b) verify the compliance of collateral and other equivalent financial resources provided by a participant to cover intraday credit exposures, with the requirements set out in Articles 9 and 15, respectively;

(c) set the credit limits to a borrowing participant based on the multiple relationships that the CSD-banking service provider has with the borrowing participant, including where the CSD-banking service provider provides more than one banking-type ancillary service among those referred to in Section C of the Annex to Regulation (EU) No 909/2014 to the same participant;

(d) take into account the level of qualifying liquid resources in accordance with Article 34;

(e) review the credit limits to a borrowing participant with the view to ensuring both of the following:

(i) where the creditworthiness of a borrowing participant decreases, that the credit limits are reviewed or reduced;

(ii) where the value of collateral provided by a borrowing participant decreases, that the credit availability is reduced.

(f) review the credit lines granted to borrowing participants at least annually based on their actual usage of credit;

(g) ensure that the amount of overnight credit exposures is integrated in the usage of the credit limit granted to the participant;

(h) ensure that the amount of overnight credit not yet reimbursed is included in the intraday exposures of the next day and is capped by the credit limit.

Sub-section 4

Potential residual credit exposures

Article 25

Potential residual credit exposures

1. The policies and procedures referred to in Article 18(1) shall ensure that any potential residual credit exposures are managed, including in the situations where the post-liquidation value of the collateral and other equivalent financial resources are not sufficient to cover the credit exposures of the CSD-banking service provider.

2. Such policies and procedures shall:

(a) specify how potentially uncovered credit losses are allocated, including repayment of any funds that a CSD-banking service provider may borrow from liquidity providers to cover liquidity gaps related to such losses;

(b) include an ongoing assessment of evolving market conditions related to the post-liquidation value of the collateral or of other equivalent financial resources that may develop into a potential residual credit exposure;

(c) specify that the assessment referred to in point (b) shall be accompanied by a procedure setting out:

(i) the measures that shall be taken to address the market conditions referred to in point (b);

(ii) the timing of the measures referred to in point (i);

(iii) any updates of the credit risk management framework as a result of those market conditions referred to in point (b).

3. The risk committee of the CSD-banking service provider and, where relevant, the risk committee of the CSD shall be informed of any risks that may cause potential residual credit exposures.

The competent authority referred to in Article 60(1) of Regulation (EU) No 909/2014 shall be promptly informed of such risks.

4. The market and activity developments affecting intraday credit risk exposures shall be analysed and reviewed every six months and reported to the risk committee of the CSD-banking service provider and, where relevant, to the risk committee of the CSD.

Sub-section 5

Reimbursement procedures and sanctioning rates

Article 26

Reimbursement procedures of intraday credit

1. A CSD-banking service provider shall have effective reimbursement procedures of intraday credit, which comply with the requirements in paragraphs 2 and 3.

2. The reimbursement procedures of intraday credit shall provide for sanctioning rates acting as an effective deterrent to discourage overnight credit exposures, and, in particular, they shall that meet both of the following conditions:

   (a) they are higher than the interbank money-market overnight collateralised market rate and the marginal lending rate of a central bank of issue of the currency of the credit exposure;

   (b) they take into consideration the funding costs of the currency of the credit exposure and the creditworthiness of the participant that has an overnight credit exposure.

Sub-section 6

Reporting of credit risk

Article 27

Reporting to authorities on intraday risk management

1. A CSD-banking service provider shall report to the relevant competent authority referred to in Article 60(1) of Regulation (EU) No 909/2014.

2. A CSD-banking service provider shall comply with all of the following reporting requirements:

(a) it shall submit a qualitative statement that specifies the actions taken regarding regarding how credit risks, including intraday credit risks are measured, monitored and managed, with at least an annual frequency;

(b) it shall notify any material changes to the actions taken, measures referred to in point (a), immediately after such material changes take place;

(c) it shall submit the metrics referred to in Article 19 on a monthly basis.

3. Where the CSD-banking service provider is in breach of, or risks breaching the requirements of this Regulation, including during times of stress, it shall immediately notify this to the relevant competent authority and it shall submit without undue delay to that competent authority a detailed plan for the timely return to compliance.

4. Until compliance with the requirements of this Regulation and of Regulation (EU) No 909/2014 is restored, the CSD-banking service provider shall report the items referred to in paragraph 2, as appropriate, daily by the end of each business day unless the relevant competent authority authorises a lower reporting frequency and a longer reporting delay by taking into account the individual situation of the CSD-banking service provider and the scale and complexity of its activities.

Sub-secection 7

Public disclosure

Article 28

Public Disclosure

For the purposes of point (i) of Article 18(1), the CSD-banking service provider shall publicly disclose annually a comprehensive qualitative statement that specifies how credit risks, including intraday credit risks are measured, monitored and managed.

Section 2

Liquidity risk

Article 29

General rules on liquidity risk

1. For the purposes of point (a) of Article 17(2), a CSD-banking service provider shall design and implement policies and procedures that:

   (a) measure intraday and overnight liquidity risk, in accordance with Sub-ection 1;

   (b) monitor intraday and overnight liquidity risk, in accordance with Sub-section 2;

   (c) manage liquidity risk, in accordance with Sub-section 3;

   (d) report intraday and overnight liquidity risk, in accordance with Sub-section 4;

   (e) disclose the framework and tools for the monitoring, measuring, management, and the reporting on liquidity risk, in accordance with Sub-section 5.

2. Any changes to the overall liquidity risk framework shall be reported to the management body of the CSD-banking service provider.

Sub-section 1

Measurement of intraday liquidity risks

Article 30

Measurement of intraday liquidity risks

1. A CSD-banking service provider shall, in particular, put in place effective operational and analytical tools to measure, on an ongoing basis, the following metrics on a currency by currency basis:

   (a) maximum intraday liquidity usage, calculated using the largest positive net cumulative position and the largest negative net cumulative position;

   (b) total available intraday liquid resources at the start of the business day, broken down into all of the following:

      (i) qualifying liquid resources as specified in Article 34:

         - cash deposited at a central bank of issue;

- available cash deposited at other creditworthy financial institutions referred to in Article 38(2);

- committed lines of credit or similar arrangements;

- assets that fulfil the requirements of Article 10 and 11(1) of this Regulation applicable to collateral, or financial instruments compliant with the requirements set out in the delegated act adopted pursuant to Article 46(6) of Regulation (EU) No 909/2014, that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, as referred to in Article 38;

- the collateral referred to in Articles 10 and 11(1);

(ii) Other than qualifying liquid resources, including uncommitted credit lines;

(c) total value of all of the following:

(i) intraday liquidity outflows, including those for which there is a time specific intraday deadline;

(ii) cash settlement obligations in other securities settlement systems where the CSD for which the CSD-banking service provider acts as settlement agent has to settle positions;

(iii) obligations related to the CSD-banking service provider's market activities, such as the delivery or return of money market transactions or margin payments;

(iv) other payments critical to the reputation of the CSD and the CSD-banking service provider.

(a) For each currency of the securities settlement systems for which a CSD-banking service provider acts as settlement agent, the CSD-banking service provider shall monitor the liquidity needs stemming from each entity towards which the CSD-banking service provider has a liquidity exposure.

Article 31

Measurement of overnight liquidity risks

In relation to overnight liquidity risks, the CSD-banking service provider shall compare on an ongoing basis, its liquid resources to its liquidity needs, as such needs result from the use of overnight credit, for each settlement currency of the securities settlement systems for which the CSD-banking service provider acts as settlement agent.

Sub-section 2

Monitoring of intraday liquidity risks

Article 32

Monitoring intraday liquidity risks

1. In relation to intraday liquidity risks, the CSD-banking service provider shall comply with the requirements of paragraphs 2 to 4.

2. The CSD-banking service provider shall establish and maintain a report on the intraday liquidity risk that it assumes. Such report shall include, at least:

   (a) the metrics referred to in Article 30(1);

   (b) the risk appetite of the CSD-banking service provider;

   (c) a contingency funding plan describing the remedies to be applied where the risk appetite is breached.

The report referred to in the first subparagraph shall be reviewed monthly by the risk committee of the CSD-banking service provider and by the risk committee of the CSD.

3. For each settlement currency of the securities settlement system for which the CSD-banking service provider acts as settlement agent, it shall have effective operational and analytical tools to monitor on a near to real-time basis its intraday liquidity positions against its expected activities and available resources based on balances and remaining intraday liquidity capacity.

4. The CSD-banking service provider shall:

   (a) Maintain, for a period of at least ten years, a record of the daily largest positive net cumulative intraday position and the largest negative net cumulative intraday position for each settlement currency of the securities settlement system for which it acts as settlement agent;

   (b) monitor its intraday liquidity exposures on an ongoing basis against the maximum intraday liquidity exposure that has been historically recorded.

Article 33

Monitoring overnight liquidity risks

In relation to overnight liquidity risks, the CSD-banking service provider shall apply both of the following:

(a) maintain, for a period of at least ten years, a record of the liquidity risks created by the use of overnight credit for each currency of the securities settlement system for which it acts as settlement agent;

(b) monitor the liquidity risk created by the overnight credit extended against the maximum liquidity exposure created by the overnight credit extended, historically recorded.

Sub-section 3

Managing Liquidity Risks

Article 34

Qualifying liquid resources

A CSD-banking service provider shall mitigate corresponding liquidity risks, including intraday liquidity risks, in each currency by using any of the following qualifying liquid resources:

(a) cash deposited at a central bank of issue;

(b) available cash deposited at one of the creditworthy financial institutions identified in Article 38(2);

(c) committed lines of credit or similar agreements;

(d) assets that fulfil the requirements of Article 10 and 11(1) of this Regulation applicable to collateral, or financial instruments compliant with the delegated act adopted in accordance Article 46(6) of Regulation (EU) No 909/2014, that are readily available and convertible into cash with prearranged and highly reliable funding arrangements in accordance with Article 38;

(e) the collateral referred to in Articles 10 and 11(1).

Article 35

Managing intraday liquidity risk

1. A CSD-banking service provider shall comply with the requirements referred to in paragraphs 2 to 14.

2. For each currency of any of the securities settlement systems for which it acts as settlement agent, the CSD-banking service provider shall:

(a) estimate the intraday liquidity inflows and outflows for all the banking-type ancillary services provided;

(b) anticipate the intraday timing of those flows;

(c) forecast the intraday liquidity needs that may arise at different periods during the day.

3. For each currency of any of the securities settlement systems for which it acts as settlement agent, the CSD-banking service provider shall:

   (a) arrange to acquire sufficient intraday funding to meet its intraday objectives as they result from the analysis referred to in paragraph 2;

   (b) manage and be ready to convert into cash the collateral necessary to obtain intraday funds in stress situations, taking into account haircuts in accordance with Article 13 and concentration limits in accordance with Article 14;

   (c) manage the timing of its liquidity outflows in line with its intraday objectives;

   (d) have arrangements in place to deal with unexpected disruptions to its intraday liquidity flows.

4. The requirements of this Article regarding the liquidity risk framework of the CSD-banking service provider shall apply also to cross-border and cross-currency exposures where relevant.

5. For the purpose of meeting its minimum qualifying liquid resource requirement, a CSD-banking service provider shall identify and manage the risks to which it would be exposed following the default of at least two participants, including their parent undertaking and subsidiaries, to which it has the largest liquidity exposure.

6. For the risk of unexpected disruptions to its intraday liquidity flows, referred to in paragraph 3(d), the CSD-banking service provider shall specify extreme but plausible scenarios, including those identified in Article 36(7) where relevant, and based at least on one of the following:

   (a) a range of historical scenarios, including periods of extreme market movements observed over the past 30 years, or as long as reliable data have been available, that would have exposed the CSD-banking service provider to the greatest financial risk, unless the CSD-banking service provider proves that recurrence of a historical instance of large price movements is not plausible;

   (b) a range of potential future scenarios that fulfil the following conditions:

      (i) they are founded on consistent assumptions regarding market volatility and price correlation across markets and financial instruments;

      (ii) they are based on both quantitative and qualitative assessments of potential market conditions, including disruptions and dislocations or irregularities of accessibility to markets, as well as declines in the liquidation value of collateral, and reduced market liquidity where non-cash assets have been accepted as collateral.

7. For the purposes of paragraph 3, the CSD-banking service provider shall also take into account the following:

   (a) the design and operations of the CSD-banking service provider, including in relation to the entities referred to in Article 30(2) and linked financial markets infrastructures or other entities that may pose material liquidity risk to the CSD-banking service provider, and, where applicable, cover a multiday period;

   (b) any strong relationships or similar exposures between the participants of the CSD-banking service provider, including between the participants and their parent undertaking and subsidiaries;

   (c) an assessment of the probability of multiple defaults of participants and the effects among the participants that such defaults may cause;

   (d) the impact of multiple defaults referred to in point (c) on the CSD-banking service provider's cash-flows and on its counterbalancing capacity and survival horizon;

   (e) whether the modelling reflects the different impacts that an economic stress may have both on the CSD-banking service provider's assets and its liquidity inflows and outflows.

8. The CSD-banking service provider shall review the procedures referred to in paragraphs 3 to 5 at least annually, taking into account all relevant market developments as well as the scale and concentration of exposures.

9. The set of historical and hypothetical scenarios used to identify extreme but plausible market conditions shall be reviewed by the CSD-banking service provider, and, where relevant in consultation with the risk committee of the CSD, at least annually. Such scenarios shall be reviewed more frequently where market developments or the operations of the CSD-banking service provider affect the assumptions underlying the scenarios in a way that requires adjustments to such scenarios.

10. The liquidity risk framework shall consider, quantitatively and qualitatively, the extent to which extreme price movements in the collateral or assets could occur simultaneously in multiple identified markets. The framework shall recognise that historical price correlations may no longer be applicable in extreme but plausible market conditions. A CSD-banking service provider shall also take into account any of its external dependencies in its stress testing, referred to in this Article.

11. The CSD-banking service provider shall identify how the intraday monitoring metrics referred to in Article 30(1) are used to calculate the appropriate value of intraday funding required. It shall develop an internal framework to assess a prudent value of liquid assets which are deemed sufficient for its intraday exposure, including, in particular, all of the following:

   (a) the timely monitoring of liquid assets, including the quality of the assets, their concentration and their immediate availability;

(b) appropriate policy on monitoring market conditions that can affect the liquidity of the intraday qualifying liquid resources;

(c) the value of the intraday qualifying liquid resources, valued and calibrated under stressed market conditions, including the scenarios referred to in Article 36(7).

12. The CSD-banking service provider shall ensure that its liquid assets are under the control of a specific liquidity management function.

13. The liquidity risk framework of the CSD-banking service provider shall include appropriate governance arrangements relating to the amount and form of total qualifying liquid resources that the CSD-banking service provider maintains, as well as relevant adequate documentation and, in particular one of the following:

(a) placement of its liquid assets in a separate account under the direct management of the liquidity management function, which may only be used as a source of contingent funds during stress periods;

(b) establishment of internal systems and controls to give the liquidity management function effective operational control to carry out both of the following:

(i) convert into cash the holdings of liquid assets at any point in the stress period;

(ii) access the contingent funds without directly conflicting with any existing business or risk management strategies, so that no assets are included in the liquidity buffer where their sale without replacement throughout the stress period would create an open risk position in excess of the internal limits of the CSD-banking service provider;

(c) a combination of the requirements set out in points (a) and (b), where such a combination ensures a comparable result.

Article 36

Stress testing the sufficiency of liquid financial resources

1. A CSD-banking service provider shall determine and test the sufficiency of its liquidity resources at relevant currency level by regular and rigorous stress testing that meets all of the following requirements:

(a) it is conducted on the basis of the factors referred to in paragraphs 4 and 5, as well as the specific scenarios referred to in paragraph 6;

(b) it includes regular testing of the CSD-banking service provider's procedures for accessing its qualifying liquid resources from a liquidity provider using intraday scenarios;

(c) it complies, in particular, with the requirements of paragraphs 2 to 6.

2. The CSD-banking service provider shall ensure, at least through rigorous due diligence and stress testing that each liquidity provider of its minimum required qualifying liquid resources established in accordance with Article 34, has sufficient information to understand and manage its associated liquidity risk, and is able to comply with the conditions of a prearranged and highly reliable funding arrangement set out in points (d) and (e) of Article 59(4) of Regulation (EU) No 909/2014.

3. The CSD-banking service provider shall have rules and procedures in place to address the insufficiency of qualifying liquid financial resources highlighted by its stress tests.

4. Where the stress tests result in breaches to the agreed risk appetite referred to in point (b) of Article 32(2), the CSD-banking service provider shall:

(a) report to both its own risk committee and, where relevant, to the risk committee of the CSD the results of the stress tests;

(b) review and adjust its contingency plan referred to in point (c) of Article 32(2) where breaches cannot be restored by the end of the day;

(c) have rules and procedures to evaluate and adjust the adequacy of its liquidity risk management framework and liquidity providers in accordance with the results and analysis of its stress tests.

5. The stress testing scenarios used in the stress testing of liquid financial resources shall be designed taking into account the design and operation of the CSD-banking service provider, and include all entities that may pose material liquidity risk to it.

6. The stress testing scenarios used in the stress testing of the qualifying liquid financial resources shall be designed taking into account the default, in isolation or combined, of at least two participants of the CSD-banking service provider, including their parent undertaking and subsidiaries, to which the CSD-banking service provider has the largest liquidity exposure.

7. The scenarios used in the stress testing of liquid financial resources shall be designed taking into account a wide range of relevant extreme but plausible scenarios, covering short-term and prolonged stress, and institution specific and market-wide stress, including:

(a) the missed receipt of payments from participants on a timely basis;

(b) the temporary failure or inability of one of the CSD-banking service provider's liquidity providers, including those referred to in point (e) of Article 59(4) of Regulation (EU) No 909/2014, custodian banks, nostro agents, or any related infrastructure, including interoperable CSDs;

(c) simultaneous pressures in funding and asset markets, including a decrease in the value of the qualifying liquid resources;

(d) stress in foreign exchange convertibility and access to foreign exchange markets;

(e) adverse changes in the reputation of a CSD-banking services provider that casue certain liquidity providers to withdraw liquidity;

(f) relevant peak historic price volatilities of collateral or assets as recurrent events;

(g) changes in the credit availability in the market.

8. The CSD-banking service provider shall determine the relevant currencies referred to in point (c) of Article 59(4) of Regulation (EU) No 909/2014 by applying the following steps in sequence:

(a) rank the currencies from highest to lowest based on the average of the three largest daily negative net cumulative positions, converted into euro, within a period of twelve months;

(b) consider as relevant:

(i) the most relevant Union currencies that meet the conditions specified in the delegated act adopted pursuant to Article 12(3) of Regulation (EU) No 909/2014;

(ii) all remaining currencies until the corresponding aggregated amount of the average largest net negative cumulative positions measured according to (a) is equal to or exceeds 95% for all currencies.

9. The CSD-banking service provider shall identify and update relevant currencies referred to in paragraph 8 regularly but at least on a monthly basis. It shall make transparent in its rules that, under stress situations, the provisional settlement services in non-relevant currencies could be executed for their equivalent value in a relevant currency.

Article 37

Unforeseen and potentially uncovered liquidity shortfalls

1. The CSD-banking service provider shall establish rules and procedures to effect intraday and multiday timely settlement of payment obligations following any individual or combined default among its participants. Those rules and procedures shall provide for any unforeseen and potentially uncovered liquidity shortfall resulting from such default with the view to avoiding unwinding, revoking, or delaying the same-day settlement of payment obligations.

2. The rules and procedures referred to in paragraph 1 shall ensure that the CSD-banking service provider has access to cash deposits or overnight investments of cash deposits, and has a process in place in order to replenish any liquidity resources that it may employ during a stress event, so that it can continue to operate in a safe and sound manner.

3. The rules and procedures referred to in paragraph 1 shall include requirements for both of the following:

   (a) an ongoing analysis of evolving liquidity needs to allow the identification of events that may develop into unforeseen and potentially uncovered liquidity shortfalls, including a plan for the renewal of funding arrangements in advance of their expiry;

   (b) a regular testing of the rules and procedures themselves.

4. The rules and procedures referred to in paragraph 1 shall be accompanied by a procedure setting out how the identified potential liquidity shortfalls shall be addressed without undue delay, including, where necessary, by updating the liquidity risk management framework.

5. The rules and procedures referred to in paragraph 1 shall also detail all of the following:

   (a) how a CSD-banking service provider shall access cash deposits or overnight investments of cash deposits;

   (b) how a CSD-banking service provider shall execute same-day market transactions;

   (c) how a CSD-banking service provider shall draw on prearranged liquidity lines.

6. The rules and procedures referred to in paragraph 1 shall include a requirement for the CSD-banking service provider to report any liquidity risk that has the potential to cause previously unforeseen and potentially uncovered liquidity shortfalls to:

   (a) the risk committee of the CSD-banking service provider and, where relevant, to the risk committee of the CSD;

   (b) the relevant competent authority referred to in Article 60(1) of Regulation (EU) No 909/2014, in the manner set out in Article 39 of this Regulation.

Article 38

Arrangements in order to convert collateral or investment into cash using prearranged and highly reliable funding arrangements

1. In relation to prearranged and highly reliable funding arrangements for liquidity risk, a CSD-banking service provider shall comply with the requirements of paragraphs 2 to 15.

2. For the purpose of point (e) of Article 59(4), creditworthy financial institutions shall include one of the following:

   (a) a credit institution authorised in accordance with Article 8 of Directive 2013/36/EU that the CSD-banking service provider can demonstrate to have low credit risk based on an internal assessment, employing a defined and objective methodology that does not exclusively rely on external opinions;

   (b) a third country financial institution that meets all of the following requirements:

      (i) it is subject to and complies with prudential rules considered to be at least as stringent as those set out in Directive 2013/36/EU and Regulation (EU) No 575/2013;

      (ii) it has robust accounting practices, safekeeping procedures, and internal controls;

      (iii) it has low credit risk based on an internal assessment carried out by the CSD-banking service provider, employing a defined and objective methodology that does not exclusively rely on external opinions;

      (iv) it takes into consideration the risks arising from the establishment of that third country financial institution in a particular country.

3. Where a CSD-banking service provider plans to establish a prearranged and highly reliable funding arrangement with a creditworthy financial institution as referred to in paragraph 2, it shall use only those financial institutions that at least have access to credit from the central bank issuing the currency used within the prearranged funding arrangements, either directly or through entities of the same group.

4. After a prearranged and highly reliable funding arrangement has been established with one of the institutions referred to in paragraph 2, the CSD-banking service provider shall monitor the creditworthiness of these financial institutions on an ongoing basis by applying both of the following:

   (a) subjecting those institutions to regular and independent assessments of their creditworthiness;

   (b) assigning and regularly reviewing internal credit ratings for each financial institution with which the CSD has established a prearranged and highly reliable funding arrangement.

5. The CSD-banking service provider shall closely monitor and control the concentration of its liquidity risk exposure to each financial institution involved in a prearranged and highly reliable funding arrangement, including its parent undertaking and subsidiaries.

6. The CSD-banking service provider's liquidity risk management framework shall include a requirement to establish concentration limits, providing in particular all of the following:

   (a) that the concentration limits are established by currency;

   (b) that at least two arrangements for each major currency are put in place;

   (c) that the CSD-banking service provider is not overly reliant on any individual financial institution, when all currencies are taken into account.

   For the purposes of point (b) major currencies shall be considered to be at least the top 50% of the most relevant currencies as determined in accordance with Article 36(8). Where a currency has been determined as major, it shall continue to be considered as major for a period of three calendar years from the date of its determination as major currency.

7. A CSD-banking service provider which has access to routine credit at the central bank of issue shall be considered to fulfil the requirements of point (b) in paragraph 6 to the extent it has collateral that is eligible for pledging to the relevant central bank.

8. The CSD-banking service provider shall continuously monitor and control its concentration limits towards its liquidity providers, with the exception of those referred to in paragraph 7, and it shall implement policies and procedures to ensure its overall risk exposure to any individual financial institution remains within the concentration limits determined in accordance with paragraph 6.

9. The CSD-banking service provider shall review its policies and procedures concerning applicable concentration limits towards its liquidity providers, with the exception of those referred to in paragraph 7, at least annually and whenever a material change occurs and affects its risk exposure to any individual financial institution.

10. In the context of its reporting to the relevant competent authority in accordance with Article 39, the CSD-banking service provider shall inform the competent authority of both of the following:

    (a) any significant changes to the policies and procedures concerning concentration limits towards its liquidity providers determined in accordance with this Article;

    (b) cases where it exceeds a concentration limit towards its liquidity providers set out in its policies and procedures, as referred to in paragraph 6.

11. When a concentration limit towards its liquidity providers is exceeded, the CSD-banking service provider shall remedy the excess without undue delay following the risk mitigation measures referred to in paragraph 8.

12. The CSD-banking service provider shall ensure that the collateral agreement allows it to have prompt access to its collateral in the event of the default of a client, taking into

account at least the nature, size, quality, maturity, and location of the assets provided by the client as collateral.

13. Where assets used as collateral by the CSD-banking service provider are in the securities accounts maintained by another third party entity , the CSD-banking service provider shall ensure that all of the following conditions are met:

    (a) it has real-time visibility of the assets identified as collateral;

    (b) the collateral is segregated from the other securities of the borrowing participant;

    (c) the arrangements with that third party entity prevent any losses of assets to the CSD-banking service provider.

14. The CSD-banking service provider shall take all necessary steps in advance to establish the enforceability of its claim to financial instruments provided as collateral.

15. The CSD-banking service provider shall be capable of accessing and converting non-cash assets referred to in Articles 10 and 11(1) into cash on a same-day basis through pre-arranged and highly reliable arrangements established in accordance with point (d) of Article 59(4) of Regulation (EU) No 909/2014.

Sub-section 4

Reporting of Liquidity Risks

Article 39

Reporting to competent authorities on intraday liquidity risk management

1. A CSD-banking service provider shall report to the relevant competent authority referred to in Article 60(1) of Regulation (EU) No 909/2014.

2. A CSD-banking service provider shall comply with all of the following reporting requirements:

    (a) it shall submit a qualitative statement that specifies all actions taken regarding how liquidity risks, including intraday are measured, monitored and managed, with at least an annual frequency;

    (b) it shall notify any material changes to the actions taken, referred to in point (a), immediately after such material changes take place;

    (c) it shall submit the metrics referred to in Article 30(1) on a monthly basis.

3. Where the CSD-banking service provider is in breach of, or risks breaching the requirements of this Regulation, including during times of stress, it shall immediately

notify this to the relevant competent authority and it shall submit without undue delay to that relevant competent authority a detailed plan for the timely return to compliance.

4. Until compliance with the requirements of this Regulation and Regualation (EU) No 909/2014 is restored, the CSD-banking service provider shall report the items referred to in paragraph 2, as appropriate, at least daily, by the end of each business day unless the relevant competent authority authorise a lower reporting frequency and a longer reporting delay, by taking into account the individual situation of the CSD-banking service provider and the scale and complexity of its activities.

Sub-section 5

Public disclosure

Article 40

Public Disclosure

A CSD-banking service provider shall publicly disclose annually a comprehensive qualitative statement that specifies how liquidity risks, including intraday liquidity risks are measured, monitored and managed.

Sub-section 6

Final provisions

Article 41

Transitional provisions

1. CSD-banking service providers that provide banking-type ancillary services at the date of entry into force of all regulatory technical standards referred to in Article 69 of Regulation (EU) 909/2014, shall identify the relevant currencies under point (ii) of Article 36(8)(b) twelve months after obtaining the authorisation to provide banking-type ancillary services under that Regulation

2. During the transitional period of twelve months referred to in paragraph 1, the CSD-banking service providers referred to in that subparagraph shall identify the relevant currencies under point (ii) of Article 36(8)(b) by taking into account both of the following:

   (a) a sufficiently large relative share of each currency in the total value of settlement by a CSD of settlement instructions, against payment calculated over a period of one year;

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(b) the impact of the non-availability of each currency on the smooth functioning of the operations of CSD-banking service providers under a wide range of potential stress scenarios referred to in Article 36.

Article 42

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]

ANNEX

Winding-down or restructuring scenarios

1. A scenario where the CSD is unable to raise new capital to comply with the requirements laid down in Article 47(1) of Regulation (EU) No 909/2014 shall be considered as triggering the restructuring of a CSD ('restructuring') where the events described in the scenario would still lead the CSD to continue to operate a securities settlement system as referred to in point (3) of Section A of the Annex to Regulation (EU) No 909/2014 and to provide at least one other core service listed in Section A of the Annex to Regulation (EU) No 909/2014.

2. A scenario where the CSD is unable to raise new capital to comply with requirements laid down in Article 47(1) of Regulation (EU) No 909/2014 shall be considered as triggering the winding-down of its operations ('winding down') where the events described in the scenario would render the CSD unable to meet the definition of Article 2(1) of the Regulation (EU) No 909/2014.

3. The scenarios referred to in Article 7(a) shall include the following assessments:

   (a) in the case of a restructuring, the CSD shall assess the expected number of months needed for ensuring the orderly restructuring of its operations;

   (b) in the case of a winding-down, the expected number of months needed for the winding-down.

4. The scenarios shall be commensurate with the nature of the business of the CSD, its size, its interconnectedness to other institutions and to the financial system, its business and funding model, its activities and structure, its size and any identified vulnerabilities or weaknesses of the CSD. The scenarios shall be based on events that are exceptional but plausible.

5. When designing the scenarios, a CSD shall meet each of the following requirements:

   (a) the events foreseen in the scenario would threaten to cause the restructuring of the CSD operations;

   (b) the events foreseen in the scenario would threaten to cause the winding-down of the CSD operations.

6. The plan ensuring an orderly restructuring or winding-down of the CSD's activities referred to in point (b) of Article 47(2) of Regulation (EU) No 909/2014 shall include all the following scenarios ('idiosyncratic events'):

   (a) the failure of significant counterparties;

   (b) damage to the institution's or group's reputation;

(c) a severe outflow of liquidity;

(d) adverse movements in the prices of assets to which the institution or group is predominantly exposed;

(e) severe credit losses;

(f) a severe operational risk loss.

7. The plan ensuring an orderly restructuring or winding down of the CSD’s activities referred to in point (b) of Article 47(2) of Regulation (EU) No 909/2014 shall include all the following scenarios (‘system-wide events’):

(a) the failure of significant counterparties affecting financial stability;

(b) a decrease in liquidity available in the interbank lending market;

(c) increased country risk and generalised capital outflow from a significant country of operation of the institution or the group;

(d) adverse movements in the price of assets in one or several markets;

(e) a macroeconomic downturn.

4. Accompanying documents

4.1 Draft cost-benefit analysis / impact assessment

4.1.1. Capital requirements: general considerations

1. In order to provide input to the development of the CSD-R, the ECSDA ran a survey among its members on the existing minimum capital requirements.[22] The conclusion that can be drawn from the results is that all respondent CSDs have to comply with minimum capital requirements, but the treatment of such capital requirements is not harmonised across the Member States.

2. For example, the notion of regulatory capital is not always defined in the same way across jurisdictions. In addition, in many cases, the minimum capital requirements are expressed as an absolute amount, which ranges from EUR 730 000 to more than EUR 40 million. In other cases, the requirements are calculated based on a proportional formula, typically 6 months of operational expenses, or using a combination of both approaches. Another reason for differences is that some CSDs hold a banking licence and are, hence, subject to the CRD IV/CRR requirements, whereas others do not. It should be noted that the CSDs surveyed do not currently subject their capital requirements to stress tests.

3. The reason for such differences is that in some cases the requirements are imposed by national corporate law, securities law or specific regulations on CSD activities; in other cases the requirements are not contained in law but agreed bilaterally between the CSD and supervisory authorities. Only for the remaining cases the minimum capital requirements derive from the banking licence.

4. The EBA faced similar technical decisions when it developed the RTS on capital requirements for CCPs,[23] although the risks to which a CSD is exposed, especially the operational risk, can be very different in nature. Bearing this in mind, the following considerations can be made.

5. In line with the CPSS-IOSCO principles, Article 47 of the CSD-R sets a minimum to the time span necessary to restructure or wind down the CSD’s activities (6 months). The same article requires a CSD to maintain a plan ensuring an orderly restructuring or winding down of the CSD’s activities where it is unable to raise additional capital referred to in point (b) of Article 47(2) of the Regulation (EU) No 909/2014. The draft RTS require an assessment of the actual time span needed to manage an orderly restructuring or winding down under a

[22] The two I-CSDs (Euroclear Bank and Clearstream Banking Luxembourg) have not been included in the ECSDA survey due to their special characteristics.

[23] Commission Delegated Regulation (EU) No 152/2013 of 19 December 2012 supplementing Regulation (EU) No 648/2012 with regard to regulatory technical standards on capital requirements for central counterparties.

range of stress scenarios. The RTS require a CSD to hold the capital necessary to ensure an orderly restructuring or winding down of its activities in the time span assessed or in any event during a period of no less than 6 months.

Definition of capital

6. Two definitions of capital were considered for the purpose of Article 47 of the CSD-R. The definition of 'own funds' in accordance with paragraph 118 of Article 4(1) of the CRR and the definition of 'capital' in Article 2(25) of EMIR.

7. Under Article 2(25) of EMIR, capital is defined by reference to accounting terms.[24] No such definition of 'capital' exists in the CRR for capital requirement purposes as the CRR foresees capital in prudential terms. Therefore, aligning the definition of 'capital' in these RTS with the definition of 'capital' under EMIR would result in a CSD subject to the CRR (i.e. a CSD holding a banking licence) to cover the risks identified in Article 47 of the CSD-R with 'subscribed capital' (within the meaning of Directive 86/635/EEC), whereas such risks are in principle already covered by own funds instruments under the CRR (i.e. Common Equity Tier 1, Additional Tier 1 and Tier 2 instruments), which meet the strictest conditions in terms of loss-absorbing capacity. There may be instances where 'subscribed capital' qualifies as 'own funds' (if it meets the conditions set forth in the CRR for recognition as either Tier 1 capital[25] or Tier 2 capital[26]) and others where it does not (if the same conditions are not met). To resolve possible inconsistencies, it is proposed to provide that, for the purpose of meeting capital requirements set forth in the CSD-R, a CSD holding a banking licence may use 'own funds instruments' (within the meaning of the CRR), provided, however, that the CSD shall ensure that the risks in question are covered by own funds instruments providing a high loss-absorbing capacity.

8. Given that the capital surcharge applies exclusively to entities that are authorised as credit institutions under the CRR/ CRD framework (CSDs that are required to hold a banking licence or are designated credit institutions), 'capital' for the purpose of the capital surcharge means 'own funds' within the meaning of the CRR.

Capital requirements for winding-down or restructuring

9. Article 47 of the CSD-R clearly distinguishes between the going concern capital (covering operational, legal, custody, investment and business risks) and the capital required to ensure an orderly winding-down or restructuring of the CSD's activities over an appropriate

[24] Article 2(25) of EMIR: "'capital' means subscribed capital within the meaning of Article 22 of Council Directive 86/635/EEC of 8 December 1986 on the annual accounts and consolidated accounts of banks and other financial institutions (3) in so far it has been paid up, plus the related share premium accounts, it fully absorbs losses in going concern situations, and, in the event of bankruptcy or liquidation, it ranks after all other claims';"

[25] Article 28 et seq. and Article. 51 et seq. of the CRR.

[26] Article 61 et seq. of the CRR.

time span of at least 6 months under a range of stress scenarios. Therefore, the two requirements should be added up.

10. This approach is driven by the rationale that the risks to which a CSD may be exposed as a going concern can persist (and could potentially increase) during the phases of restructuring or winding-down. In other words, the two situations do not overlap and the requirements on going concern capital and capital for winding-down or restructuring should be considered additive.

11. Article 47(2) requires CSDs to prepare and implement a plan (i) to raise additional capital should the equity capital approach or fall below the capital requirements to cover the going concern scenario as well as a restructuring or winding-down scenario and (ii) in case it is not possible to recapitalise the CSD in a distress situation, to ensure the orderly winding-down or restructuring of the operations and services.

Scenarios for winding down and restructuring

12. The EBA investigated the possibility of specifying in the technical standards the definition of ’winding-down or restructuring’ of a CSD’s activities. Article 2.1(1) of the CSD-R defines the scope of the activities a CSD has to perform to qualify as such. Therefore, the ’winding-down’ of the CSD activities can be defined as the process that leads the firm to cease offering some of these activities and so to the firm ceasing to have a CSD licence (i.e. it does not offer at least two of the services listed in the Section A of the Annex to the CSD-R any more). On the other hand, a process of reorganising the legal, operational or other structures that does not lead the company to lose its CSD status (i.e. the CSD offers at least two of the services listed in Section A of Annex to the CSD-R) could be a definition of the ’restructuring’ process.

13. Article 47(2) requires all CSDs to prepare and implement a plan (i) to raise additional capital should the equity capital approach or fall below the capital requirements to cover the going concern scenario as well as a restructuring or winding-down scenario and (ii) in case it is not possible to recapitalise the CSD in a distress situation, to ensure the orderly winding-down or restructuring of the operations and services. Such a plan has to take into consideration a ‘wide range of stress scenarios’ which include a time span of at least 6 months to implement a restructuring or winding-down. The question is, therefore, whether the technical standards should identify the criteria – that is, define scenarios – or whether this should be left to individual CSDs.

14. As prescribed in the CSD-R, such a plan has to take into consideration a ‘wide range of stress scenarios’ which include a time span of *at least* 6 months to implement a restructuring or winding-down. The reference used to define the winding-down or

restructuring scenarios is the EBA Guidelines on the range of scenarios to be used in recovery plans[27] and the references included therein[28, 29] to the related FSB framework.

15. From a purely prudential point of view, the fact that the winding-down and restructuring period has a minimum equal to the standard one (6 months) might allow for the possibility for being less prescriptive about the scenarios to be used.

16. Some scenarios were not designed to define regulatory capital. Therefore, only a certain number of scenarios among those recommended in the abovementioned Guidelines and other publications were deemed appropriate for the purposes of these technical standards. Two broad approaches were considered:

Option 1: Scenario definitions are not included in the RTS and have to be agreed with the competent authorities.

Option 2: Scenario definitions are included in the RTS.

17. It is the opinion of the EBA that the scenarios for winding-down or restructuring, as well as those for business risk, should be designed in a way that is flexible enough to give a proper representation of the risks faced by the CSD and proportional to the complexity of the business. On the other hand, they should also guarantee a harmonised treatment across all the Member States. Therefore, Option 2 (i.e. scenario definitions are included in the RTS) is the more appropriate one.

18. Furthermore, the CSD-R’s distinction between CSDs, CSDs offering banking-type ancillary services and CSDs using designated credit institutions might be considered when designing the scenarios. Therefore, at least the following options should be considered:

Option 3: Scenario definitions are different for CSDs and CSDs offering banking-type ancillary services.

Option 4: Scenario definitions are the same for all CSDs.

The EBA assumes that a scenario that has no application for a CSD offering banking-type ancillary should be set to zero for a non-bank CSD and vice versa. Therefore, Option 4 is the preferred option. The EBA recognises, however, that all those scenarios will be part of the plan referred to in Article 47 of the CSDR and the obligation to address all of them even when they do not apply to specific firm may be cumbersome.

[27] Guidelines on the range of scenarios to be used in recovery plans, issued by the EBA on 18 July 2014.

[28] Key Attributes of Effective Resolution Regimes for Financial Institutions, issued by the FSB on October 2011.

[29] Recovery and Resolution Planning for Systemically Important Financial Institutions: Guidance on Recovery Triggers and Stress Scenarios, issued by the FSB on 16 July 2013.

Regulatory capital for operational risk

19. Article 47 of the CSD-R distinguishes between operational, custody and legal risk. The question is whether it would be possible to cover those risks under a single capital charge based on a methodology that already considers all of them. Under the CRR, operational and legal risks can be covered by one single capital charge based on a single methodology, i.e. the Basic Indicator Approach (BIA)[30], the Standardised Approach or the Advanced Measurement Approach (AMA)[31] for more complex institutions. Some CSDs with a banking licence are authorised to use the AMA approach when calculating the current regulatory capital for operational risk. By contrast, not all CSDs without a banking licence are subject to an explicit requirement for operational risk.

20. In principle, the BIA might not be well suited for all cases because this method has been calibrated for banks.[32] On this basis, the following options were considered:

Option 1: Reducing the coefficient under the BIA from 15% to 10%; or

Option 2: Applying the CRR methodology (the BIA).

21. The fact that a CSD that is not a banking services provider carries smaller operational risk than a bank supports Option 1. However, the 10% coefficient in Option 1 is not justified by any other quantitative or qualitative consideration. As the BIA is based on income, under Option 1 the regulatory capital might even be underestimated for a CSD that had temporarily smaller income, such as a new CSD or a CSD that was part of a larger group.

22. For the above reasons, Option 2 is preferred.

Role of operational risk insurance for CSDs

23. As discussed in Section 4.1.2 of this report, 'Capital requirements – Survey and quantitative analysis', the results of a quantitative survey show that operational risk is one of the major risks to which any type of CSD is exposed. A number of Member States have national regulations recognising the role of OpRisk insurance. In some cases, such arrangements are even mandatory under national laws.

24. Table 1, which is a contribution from ECSDA members, shows a list of Member States where CSDs use OpRisk insurance. Table 1 also shows that the insurance agreements often do not cover exclusively OpRisk but offer broader coverage. In order to inform the decision

[30] Regulation (EU) No 575/2013 (CRR), Title III, 'Own Funds Requirements for Operational Risk', Articles 315-320.

[31] Regulation (EU) No 575/2013 (CRR), Title III, 'Own Funds Requirements for Operational Risk', Articles 321-324.

[32] See Article 3(1) of the Commission Delegated Regulation (EU) No 152/2013 of 19 December 2012 supplementing Regulation (EU) No 648/2012 with regard to regulatory technical standards on capital requirements for central counterparties. During the consultation for the capital requirements for CCPs, the application of the CRR benchmark for the calculation of the operational risk was criticised and respondents suggested a review of the standard weights. However, the suggestion was not taken on board as the EBA decided to use the BIA or the AMA for CCPs.

on the two options described below, the members were also asked to investigate whether the current contracts would meet the requirements of Article 292 of the CRR, i.e., the criteria for the eligibility of OpRisk insurance under the AMA.

Table 1: Use of OpRisk insurance by CSDs in (EEA) Member States

(EEA) Member State	**OpRisk insurance is a legal requirement**	**OpRisk insurance is used but it is not a legal requirement**	**Insurance coverage**
DK	Yes		Not limited to OpRisk
EE	Yes		Not limited to OpRisk
LT	Yes		Not limited to OpRisk
LU	No	Yes	Not limited to OpRisk
LV	No	Yes	Not limited to OpRisk
HR	No	Yes	OpRisk only
IS	Yes		Not limited to OpRisk
NO	Yes		Not limited to OpRisk
PL	No	Yes	OpRisk only

25. Furthermore, out of nine respondents, five reported that the current arrangements meet the requirements of Article 292 of the CRR. Four reported that the conditions are only partially met.

26. When developing the RTS, the EBA considered two options for the recognition of OpRisk insurance for regulatory capital requirements. As the CSDs authorised to use the AMA would already be able to model the insurance agreements, these options concern the BIA approach only.

Option 1: Regulatory capital for investment risks has to be calculated using the methodologies and parameters set out in the CRR (i.e. the BIA)

Option 2: A CSD using the BIA can have a reduction in regulatory capital for operational risk only if the insurance agreement meets the requirements for its eligibility under the AMA (i.e. Article 292 of the CRR).

27. The reduction in regulatory capital for operational risk in Option 2 would follow an algorithm such as the following: 1) the CSD checks for compliance with the requirements of Article 292 of the CRR; 2) the CRR calculates the regulatory capital using the BIA methodology but with a coefficient reduced from 15% to 10%; 3) the regulatory capital is set to the maximum between the value calculated in point 2) and 80% of the regulatory capital using the BIA with a 15% coefficient (i.e., a floor to the benefits of insurance).

28. Although the EBA recognises Option 2 as a viable solution, concerns about deviating from the CRR rules prevail over the benefits Option 2 would provide. In fact, in order to guarantee harmonisation, the constraints on the application of Option 2 would result in a very limited impact on the actual release of capital requirements. Moreover, assuming the impossibility of having fully fledged models of insurance agreements in the calculation under the BIA, the results might be disproportionate to the actual coverage of insurance agreements. In other words, agreements covering only extreme scenarios and agreements covering all OpRisk-related losses would end up being treated in the same way.

29. For the above reasons, the EBA considers Option 1 the better methodology for the purpose of these RTS.

Capital requirements for investment risks

30. Smaller CSDs stressed that their regulatory capital requirements will be driven mostly by operational risk. This is confirmed by the quantitative impact assessment in the next section. Nonetheless, different CSDs might have different investment strategies and therefore different risk profiles. Consequently, regulatory capital for investment risk has to be risk-based. Since the most comprehensive framework for the calculation of market, credit and counterparty credit risks in a harmonised manner is the one in the CRR, the CSD should calculate the regulatory capital requirements using at least the standardised approaches in the CRR that are not operationally too burdensome for smaller firms.

31. For example, it is extremely unlikely that any CSD (including the ICSDs) has activities in the derivative market of sufficient size and complexity to justify the development and deployment of internal models for counterparty credit risk. The use of standard CCR models

such as the mark-to-market method and the original-exposure method should then properly suit all cases. The EBA might consider reviewing the RTS following the introduction of the SA-CCR[33] to the European banking regulation.

32. The main options considered when developing the technical standards were:

Option 1: Regulatory capital for investment risks has to be calculated using the methodologies set out in the CRR

Option 2: A threshold is defined under which a CSD is not required to calculate regulatory capital requirements using the methodologies in the CRR and must hold an absolute amount instead.

33. For the reasons explained above, Option 1 is considered the better option.

Capital requirements for business risk

34. As for custody risk, there is no candidate methodology for business risk in the CRR. By analogy with the capital requirements for CCPs, business risk could be captured by an add-on equal to 3 months of operational expenses.

35. Although this approach would likely fit CSDs running core activities only and of limited balance sheet length, a more careful analysis might be suitable for more complex CSDs. In order to capture such complexity, a scenario-based approach is introduced for CSDs.

36. The minimum set of scenarios prescribed in the RTS should cover all the major business risks not covered under the operational risk module. The scenarios have to be tailored differently for each CSD. However, since this approach may lead to a non-harmonised treatment, a minimum level of regulatory capital against business risk needed to be introduced. Since the overall impact is expected to be limited, although not immaterial, this minimum is set to the level of the standard approach, i.e. 3 months of operational expenses.

37. When developing the RTS, the following options were considered:

Option 1: Business risk scenarios are defined by 'hard coded' parameters (i.e. explicit percentages).

Option 2: Business risk scenarios are defined by a narrative description.

Option 3: Business risk scenarios are to be agreed with the competent authority.

[33] The standardised approach for measuring counterparty credit risk exposures, Issued by the Basel Committe on Banking Supervision on March 2014.

38. Option 1 is the one proposed in the Consultation Paper. Option 3 is not a viable option as it is not possible for the RTS to include powers to the competent authorities that are not foreseen in the Level 1 text. Defining the business risk scenarios via a narrative description, i.e. Option 2, provides a lesser degree of harmonisation but a better fit to the characteristics of specific firms.

Capital requirements for custody risk

39. The CSD-R devotes special consideration to custody risk for which there is no obvious candidate methodology that applies to CSDs.

Option 1: One option is to recognise that the operational risk methodology, and therefore the capital requirements, already includes custody risk.

Option 2: The alternative option would be to recognise the special role of CSDs and propose either a different calibration of the operational risk charges or a totally different approach.

40. Option 2 is the one proposed in the Consultation Paper. Industry stakeholders highlighted in their responses its inconsistency with banking regulation (used for reference in other parts of the RTS) and difficulties in its practical implementation as well as uncertainty about the conceptual soundness of the approach.

41. Moreover, as custody risk results either in a risk from participants or a legal risk for the CSD, it would be more appropriate to consider it accounted for in the regulatory capital requirements under operational risk.

42. For these reasons, Option 1 is considered the best alternative.

4.1.2. Capital requirements – Survey and quantitative analysis

43. The EBA gathered quantitative evidence to inform the impact assessment during the consultation period. CSDs domiciled in the EU were invited to provide information to their national competent authority on a bilateral basis and on a best effort basis. In order to guarantee the confidentiality of these data, only anonymous or aggregated figures will be published with this report.

44. Out of 30 CSDs in the EU, around 20 participated in the survey. After a data quality screening, data on 13 of them were used for the statistics presented in the following paragraphs. Some caveats should be considered when reading the results of the survey. First of all, none of the CSDs actually applied the scenarios required for winding down or restructuring or for business risk. The corresponding regulatory capital requirements were provided assuming that the two floors (6 and 3 months of operational expenses, respectively) applied. Furthermore, several CSDs are not familiar with the CRR framework and currently do not use either the BIA or the AMA approach to calculate regulatory capital for operational risk, as shown in Figure 1.

Figure 1. Overview of the current use of operational risk methodologies among CSDs.

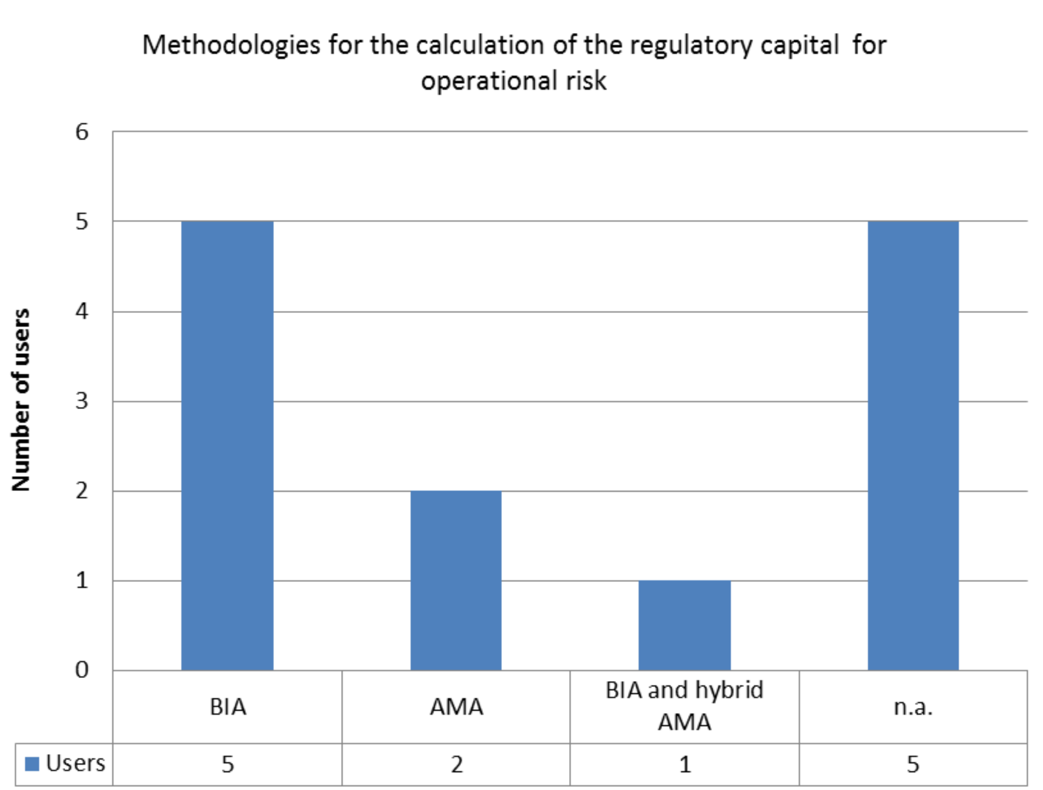


Figure 2 shows that the estimates provided with the survey may differ significantly among CSDs. Considering that most respondents do not offer banking-type ancillary services, such differences in risk profiles may be observed also among smaller participants.

Figure 2: Composition of capital requirements under RTS (by CSD)

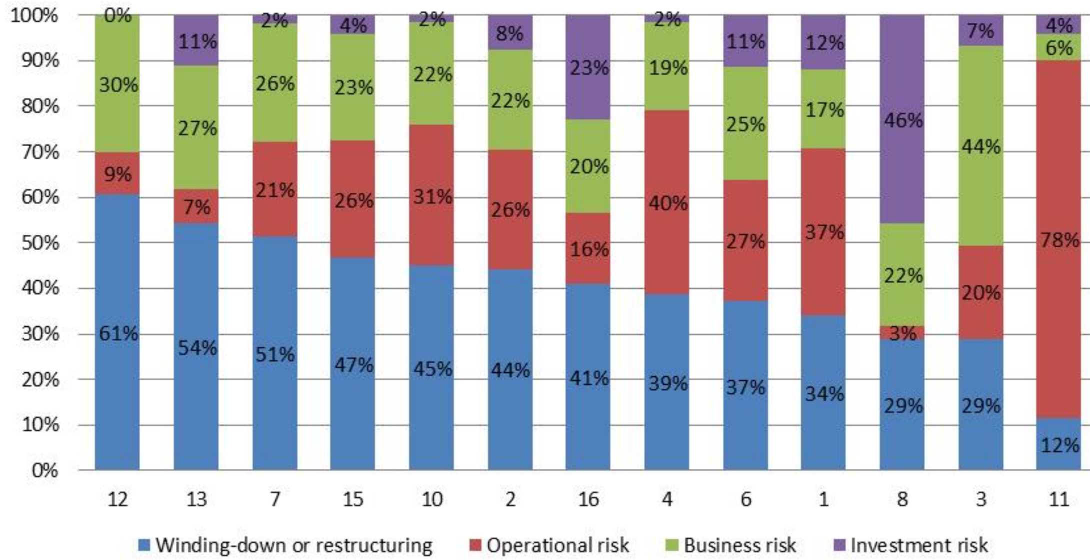
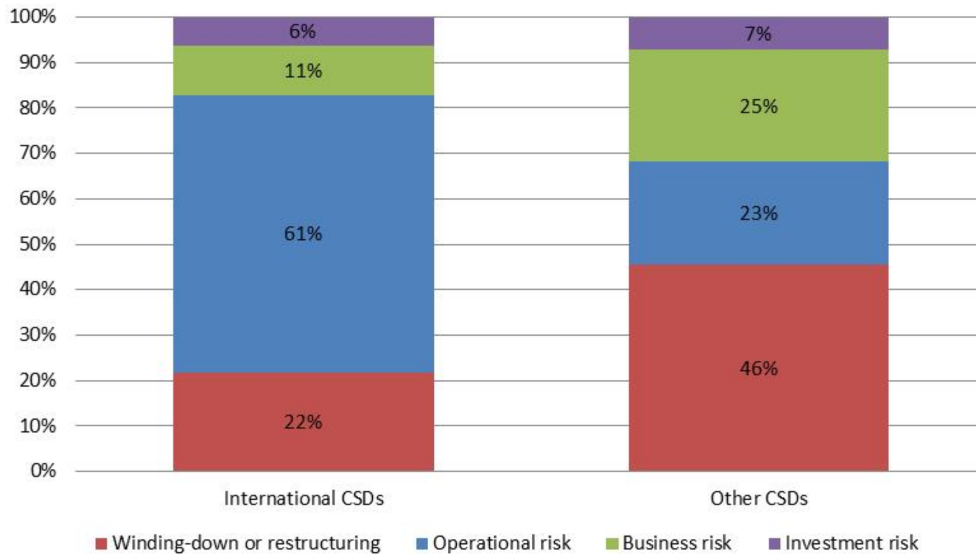


Figure3: Composition of capital requirements under the assumptions of the RTS for I-CSDs and other CSDs.



45. The chart in Figure 3 was produced by calculating the percentage of each component of the overall regulatory capital under Article 47 of the CSD-R under the assumptions of the Consultation Paper. As I-CSDs and other CSDs show different profiles, they are presented in two different columns. As expected, regulatory capital for winding-down or restructuring and for operational risk dominate the requirements in both cases and investment risk is less material.

46. It should be noted, however, that investment risk is not negligible. In accordance with this observation, the EBA does not favour the option of a flat capital requirement for investment risk for CSDs not offering banking-type ancillary services. The EBA considers

that, despite the limited amount of risk arising from a CSD's investments, a risk-based approach is necessary. The Sub-section 'Capital requirements for investment risks', in Section 4.1.1 of this report covers this aspect in more detail.

4.2.1. Article 54(5) - Capital surcharge

47. The capital surcharge related to banking-type ancillary services introduced by Article 54 of the CSD-R should be applied consistently to CSDs and designated credit institutions authorised to provide banking-type ancillary services and should capture in particular intraday credit risks that are not covered by the CRD IV/CRR framework. The methodology proposed in the CP is based on the average of the five highest aggregated intraday exposures over the most recent calendar year and the assumption that the corresponding collateral loses 5% of its market value. The risk-weighted residual exposure amounts shall be calculated in accordance with the credit risk methodologies set out in the CRR assuming that those exposures are end-of-the-day exposures.

48. The proposed approach has several advantages:

    a) The implementation of this proposal depends only on the ability of the institution (CSD or designated bank) to record intra-day exposures. This, however, is already required under the RTS on the monitoring of intraday credit and liquidity. It is actually an incentive to properly record intraday data.

    b) This proposal is an application of the framework of the CRR, under different assumptions. Therefore, it should be easily implementable by a CSD with a banking licence or a designated bank.

    c) It is sufficiently prudent and takes into account all the risk that may arise from the banking-type ancillary services.

    d) It is also risk sensitive in the sense that the quality of the collateral as well as the credit quality of the participants is taken into account.

    e) It avoids double counting; risks already covered are not counted twice.

49. There are two potential disadvantages and they both relate to the stress situation envisaged for intra-day credit risks.

    a) The risk weights in the CRR framework assume a 1-year time horizon, which is not the relevant time horizon for the risks considered in this framework.

    b) The level of stress for intraday risks might be hard to calibrate properly given the current available information on intraday exposures.

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4.2.2. Article 59(3) – Credit risk, collateral and other equivalent financial resources

50. In defining these regulatory standards, the CPMI-IOSCO principles and the requirements regarding credit risk under the CRR have been taken into account where relevant.

Credit limits

51. Whereas credit limits shall be defined by the creditworthiness of a participant and the actual need to facilitate settlement activity, they shall be set as a function of the potential liquidity risks that the failure of a participant could create. Sufficient qualifying liquidity sources shall be available to cope with such defaults. In that perspective, the availability of highly liquid collateral or investments that are readily available and convertible into cash with pre-arranged and highly reliable funding arrangements shall be taken into account when defining the maximum level of the credit limit.

Definition of highly liquid collateral with minimal credit and market risk and other financial resources equivalent to collateral

52. The definition of highly liquid collateral with minimal credit and market risk in these RTS is the same as in Regulation (EU) 648/2012 (EMIR Annex 1) with the adaption that, as CSDs or entities providing banking-type ancillary services under Article 54 of the CSD-R are banks, and in accordance with point (i) of Article 59(4) of the CSD-R, pre-arranged and highly reliable funding arrangements shall be available to ensure they have the capability to liquidate the collateral intraday to ensure that liquidity shortfalls are avoided whenever other liquidity resources would not be sufficient in case of a participant default. The availability of highly liquid collateral with minimal credit and market risk shall be taken into account in setting credit limits for participants.

53. Equivalent financial resources are limited to letters of credit to cover credit risk exposures between CSDs interoperable links and commercial or central bank guarantees based on the definition in Regulation (EU) 648/2012 (Annex 1 of EMIR) .

Other types of collateral

54. The specific situations in point (d) of Article 59(3) of the CSD-R refer to situations in which other types of collateral can be used to cover credit exposures to individual borrowing participants, insofar as an appropriate haircut is applied. This is relevant for participants that may not dispose of sufficient highly liquid collateral with minimal credit and market risk. In that respect, some systems may use ’auto-collateralisation’ mechanisms in which the securities being purchased secure the credit required for their acquisition.

55. Given that CSDs authorised as credit institutions and designated credit institutions in accordance with point (b) of Article 54 2 have access to routine credit with their central bank based on eligible financial instruments as collateral, eligible assets that do not meet the definition of highly liquid collateral with minimal credit and market risk but that can still

be mobilised with the central bank are considered highly liquid collateral. The availability of this type of other collateral shall also be taken into account in setting credit limits to participants.

56. Other types of collateral that are not eligible assets with the own central bank can be accepted insofar as other qualifying liquidity sources shall be available to cover the time required to liquidate such collateral, which should be no longer than five days.

Collateral valuation

57. The frequency of the collateral valuation is in line with Regulation (EU) 648/2012 (Article 40 of EMIR). CSDs or entities providing banking-type ancillary services under Article 54 of the CSD-R shall monitor on a near- to real-time basis for highly liquid collateral with minimum credit and market risk, based on market prices. For other collateral, in particular collateral that is non-central-bank eligible, monitoring should be based on mark-to-market or mark-to-model valuation.

Haircuts and collateral concentration

58. Different haircut floors were considered for specifying appropriately conservative haircuts. The option was chosen of taking as a minimum haircut the haircut applied to the type of collateral by the central bank where collateral is eligible at the central bank. As these are numerical haircut floors, CSDs or entities providing banking-type ancillary services under Article 54 still need to have a collateral valuation system in place to set haircuts that take into account the criteria set out in Article 13. Haircuts shall be reviewed on at least a daily basis, in comparison with the value of the collateral, to take into account the volatility of the value of the collateral. A daily review is necessary as collateral assets may change category from highly liquid collateral with minimal credit and market risk into other types of collateral, either central-bank eligible or not.

59. Collateral concentration rules are based on Article 42 of EMIR with the addition of criteria for the determination of concentration limits at the level of the country of issuer.

Reimbursement procedures for intraday credit

60. For sanctioning rates to be an effective deterrent to discourage overnight exposures, they must be higher than the interbank money-market overnight collateralised market rate or marginal lending rate of the central bank of issue of the currency of the credit exposure, whichever is the highest. CSDs or entities providing banking-type ancillary services under Article 54 shall also take into account the funding costs of the currency and the creditworthiness of the participant when setting up the sanctioning rates.

4.2.3. Article 59(4) - Liquidity risk

61. These RTS are mandated by the CSD-R to harmonise the prudential standards of liquidity risk management for banking services provided by, or on behalf of, central securities depositories given the specific risk profile that they have. In its impact assessment, the Commission noted that the European CSD market is 'very fragmented, and for the provision of ancillary services, CSDs and custodian banks often compete for ancillary functions' (p. 8). The Commission identified in particular a 'Lack of common prudential rules' (p. 17), which could have 'tremendous consequences for a national market' in the 'case of failure due to non-regulated operational or financial risks'. To address these issues, the Commission proposed that 'CSDs across the EU would be subject to common prudential and organisational rules that reflect their systemic role for the market'.

62. The issue addressed by these RTS is the need to fill the current regulatory gap for banking services provided by, or on behalf of, CSDs given their specific risk profile. The business model of a banking service provider is such that it has very large intraday exposures that are closed out by the end of day. This focus on intraday activity is not addressed by current regulation for market infrastructure or credit institutions. In particular, there is no existing Level I legislation in the EU which seeks to monitor, measure, manage or report intraday liquidity risk. Given the systemic importance of ICSDs to the European financial market, this is a very material issue. Banking service providers are linked to systemically important institutions and since their risk profile is primarily intraday, it is not adequately dealt with by existing legislation.

63. The RTS set out monitoring of intraday liquidity risk which largely follows the principles of the BCBS paper 'Monitoring Intraday Liquidity Risk'. The management section of the RTS translates the monitoring metrics into a liquid asset requirement to mitigate intraday liquidity exposures.

The scope of the changes

64. These RTS will affect a small set of institutions which provide banking services as (or on behalf of) a CSD. All banking service providers will be affected in the same way.

The extent and cost of the changes to the current practice

65. In the absence of harmonised practices, the impact of the proposed rules is expected to vary between EU Member States.

66. The banking services providers must be authorised as credit institutions under CRD and as such will need to comply with the CRR/CRD IV. The costs of these RTS will therefore be the incremental costs of the change from the standards of the CRR to those of the CSD-R.

67. Additional requirements resulting from these RTS will be the establishment of intraday monitoring and reporting, an established process for determining intraday liquidity buffers,

more prudent determination of liquid assets and the associated costs of pre-arranged funding arrangements.

68. Harmonised prudential principles regarding the management of intraday liquidity may reduce the probability of failure of firms offering such services due to the better management of liquidity risk, to early detection and to other prudential factors.

The supervisory impact

69. There is no supervisory guidance for the RTS. These RTS will require additional review from supervisors to ensure that firms are meeting the requirements of the RTS.

The proposed regulation (the RTS)

70. The RTS assume that the banking service provider is also subject to the requirements of the CRR, and therefore focus on the areas where the CSD-R mandate is not already met by that Regulation.

4.2 Feedback on the public consultation

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

The consultation period lasted for 2 months and ended on 27 April 2015. Twelve responses were received, of which all twelve 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 response to different questions. In such cases, the comments, and the EBA's analysis, are included in the section of this paper where the 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 responses to the consultation and the EBA's analysis

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
General comments			
Art. 47 of the CSD-R on capital requirements			
1. Art. 1: Overview of requirements regarding the capital of a CSD	Overall, respondents to the public consultation support the objective of the draft RTS but warn that requirements show some inconsistency (discussed in detail below) and might be disproportionate for smaller CSDs.		Suggested changes are listed under each specific item.
2. Art: 2 Definition of capital of a CSD	Respondents support the proposed definition of capital, in particular the possibility of using the CRR definition for CSDs that offer banking-type ancillary services.		No change needed.
3. Art. 3 Level of capital requirements for a CSD	It is the respondents' opinion that the capital of a CSD must be sufficient to mitigate legal, business, operational, investment and custody risk. The respondents' responses mostly disagree with some interpretation of the CSDR mandate, in particular concerning custody risk, the cumulative approach to going concern and winding-down capital requirements and the notification threshold.	Each of these aspects is analysed in detail below.	See below.
3.1. The treatment	Respondents identified three types of custody	This is also addressed in the Annex, including in	The articles concerning

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
of custody risk	risk (a detailed analysis is in the cost-benefit analysis in the Annex to this report). Their conclusion is that custody risk should not be treated differently from under the CRR, i.e. AMA, BIA or SA for operational risk should be considered as already taking into account this risk.	the cost-benefit analysis. The EBA is of the opinion that custody risk is already captured by the treatment of the other regulatory capital requirements for operational risk. The EBA also recognises that the proposal for custody risk in the Consultation Paper is not a viable solution and should be dropped.	custody risk and the corresponding recitals have been adjusted accordingly.
3.2. The cumulative approach (and scenarios)	Respondents believe that the cumulative approach (i.e. the capital requirements consist of the sum of the going concern requirements and the capital required for winding-down or restructuring) is excessive. The main problems with the proposed cumulative approach can be identified: (a) there are overlaps between the approaches, for example as regards business risk; (b) the same scenario might thus be considered twice, although to different degrees; (c) the proposed cumulative approach is not consistent with Principle 15, Key consideration 3 of the PFMI; (d) EMIR standards for CCPs should not be used for reference as CSDs have different risk profiles.	A new section has been included in the cost-benefit analysis in the Annex, covering these aspects in detail. As a general observation, the cumulative approach is required by the Level 1 text and cannot be overwritten by the RTS. The specific aspects introduced with the RTS, e.g. the scenarios, should take into account the possibility of unwittingly introducing any double counting.	The scenarios for business risk and winding down have been amended accordingly.
3.3. Notification threshold	Respondents understand that the wording has been inspired by the technical standards under the EMIR. Unlike CCPs, CSDs are not required to provide capital for managing a	The EBA agrees.	Deleted.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	participant's default. They also note that a notification at 110% is not justified in the case of CSDs because their capital is typically very stable. Moreover, a minor loss of capital would not require urgent corrective action or strict monitoring from a prudential perspective as such a loss is very unlikely to lead to any disruption in CSD services. Industry stakeholders therefore suggest either (a) lowering the notification threshold or (b) providing more flexibility as regards the frequency of notifications.		
4. Art. 4: Level of capital requirements for operational, legal and custody risks	The respondents suggest that, when a CSD is not a bank, the reference to the CRR concerning operational risk needs adjustment to allow for a proper reflection of CSDs' risk profile in their capital requirements. The suggestions are listed below.	See analysis of specific proposals below.	See below.
4.1. A recalibration of the 15% ratio	Respondents support the use of the Basic Indicator Approach for assessing operational and legal risks and recognise that this will be the choice of most (although not all) CSDs. They suggest, however, that the 15% ratio used for banks should be recalibrated to 10% to reflect CSDs' lower risk profile.	Although the calibration of the BIA may be disputable for CSDs not offering banking-type ancillary services, the respondent did not provide any quantitative support for alternative methodologies. For example, the proposal based on the BIA with a lower coefficient is inconsistent with the claim that the BIA is not a proper reference.	No change with respect to the approach proposed in the Consultation Paper.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		Therefore, using the BIA with a lower coefficient is not an acceptable alternative.	
4.2. OpRisk Insurance	In some markets (e.g. in the Nordic countries and the Baltic region), CSDs are *obliged by law* to maintain special insurance arrangements to offset operational risk. Proposal 1: When CSDs have specific insurance arrangements to cover business and other risks, competent authorities should be allowed to take these into account (as well as any existing guarantee scheme, if applicable) when calculating capital requirements under Art.4 of the draft RTS. Proposal 2: This could be done, for example, by: (a) applying a lower ratio; or (b) allowing CSDs to apply Art. 323 of the CRR (as regards the impact of insurance in the Advanced Measurement Approach) in the context of the Basic Indicator Approach calculations so that capital requirements for operational risk could be reduced by up to 20%.	Proposal 1 is not applicable as it does not guarantee a harmonised treatment within the Union. Proposal 2 is discussed in the cost-benefit analysis in the Annex to this report.	The draft RTS has not been amended and OpRisk insurance cannot be considered in the calculation of regulatory capital requirements when using the BIA. CSDs authorised under the AMA can choose to integrate their insurance into the modelling but not for capital requirements purposes.
4.3. OpRisk insurance	In some instances, the insurance cover is supplemented by a **statutory participant guarantee scheme**. These arrangements are a	The EBA recognises the importance of participant guarantee schemes in some Member States. However, as participant	No change with respect to the approach proposed in the Consultation Paper.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	vital component of those CSDs' risk-management frameworks and should be recognised in the RTS.	guarantee schemes usually consist of unfunded protection, they should not be taken into account for the calculation of regulatory capital requirements.	
5. Art: 5 Level of capital requirements for custody risk	See comments on the treatment of custody risk in the previous sections.	Custody risk is already considered by the methodologies for calculating regulatory capital requirements for operational risk and therefore should not have any separate/additional add-on.	The draft RTS has been amended to include custody risk within the capital requirements for operational risk.
6. Art. 6: Level of capital requirements for investment risk	Client fees are the primary source of income. Investment and custody risks are thus very marginal compared with operational risk. CSDs, unlike banks, do not typically generate income by investing client assets. Moreover, given the restrictive investment policy imposed on CSDs by Art. 46 of the CSD-R, in particular the obligation for a CSD to invest its assets in highly liquid instruments, investment risk is typically extremely low for CSDs.	Capital requirements for risk arising from financial investments are required under the Level 1 text. The proposed approach, based on CRR methodologies and calibrations, is risk based and not particularly complex when the standardised approaches are used. Therefore, all CSDs should calculate regulatory capital requirements following the proposed methodologies, even when the impact is small.	No change.
6.1. Capital requirements for investment risk	Some aspects of the proposed method for calculating capital requirements in relation to investment risk will not apply in the case of non-bank CSDs (e.g. CSDs typically do not enter into derivatives transactions).	Investments in derivative transactions are allowed under the CSD-R. Where there is no counterparty credit risk exposure, capital requirements can be set to zero.	No further specifications in the RTS.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
6.2. Capital requirements arising from non-eligible investments	Respondents wonder whether the consideration of tangible assets is adequate for CSDs. For example, if a CSD owns its office buildings (land and property used for the purpose of its own activities), this results in a risk weight of 100% for assets (as per Art. 134(1) of the CRR). Proposal 1: Such property investments should not be considered in the context of investment risk (credit risk in particular); and Proposal 2: The calculation of a CSD's risk-weighted exposure amounts for credit risk should be limited only to the CSD's investment activities.	The RTS cannot deviate from the Level 1 text and therefore only eligible investments can be considered to meet the regulatory capital requirements. Other investments (i.e. those that are not eligible in accordance with Art. 46 of the CSD-R) might be exposed to market or credit risks and therefore have to be taken into account when setting regulatory capital requirements under the CSDR. The methodologies included in the CRR already specify the treatment for risk weights of assets that are deducted from own funds. Article 113 of the CRR is an example. In general, the treatment of such positions should not be different between CRR and CSDR, as they refer to the same methodologies. These RTS should avoid including a detailed list on the treatment of those positions as the methodologies in the RTS refer explicitly to the CRR. Where the application of the risk weights is doubtful because of the peculiar structure of the CSDR, a Q&A may be submitted to clarify the interpretation of the provision across regulations.	No further specifications in the RTS.
7. Art. 7: Capital requirements for			

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
business risk, and Annex on business risk scenarios			
7.1. Total gross expenses	Same comments as for the use of total gross operational expenses for winding down or restructuring (see 9.3 below).	See below, the same issue was addressed for operational expenses for "winding down and restructuring" regulatory capital floor.	See below on winding down and restructuring.
7.2. 3 month floor	All the respondents stressed the fact that CSDs operate on simpler and lower risk business models than banks or CCPs. They therefore suggest that the 25% ratio (i.e. three months of operational expenses) for business risk is too high.	The 'floor' is necessary to guarantee a sound prudential treatment. Proportionality is already included in the approach to operational expenses. The level (25% of annual operational expenses) is compatible with similar requirements in other regulations.	No change in the 25% ratio.
8. Art.7: Business risk scenarios	Respondents disagree that predefined business risk scenarios are the most appropriate means to calculate capital requirements for business risk (Annex II of the Consultation Paper). Proposal 1: A more flexible approach, similar to that in EMIR, allowing the use of 'reasonably foreseeable adverse scenarios relevant to the CSD's business model, as approved by the competent authority'. Proposal 2: Similarly, if the scenarios are retained, the suggestion is to have: (a) a more flexible approach to the definition	The draft RTS should identify whether the scenarios are designed for both types of CSDs or only for those offering banking-type ancillary services. 'Undefined' scenarios, as in Proposal 1, do not guarantee a harmonised treatment in the Union. Alternative definitions of the scenarios (i.e. not based on fixed percentages) would then be possible as long as additional requirements guarantee a harmonised treatment. Therefore, a CSD should be allowed to develop its own scenarios for business risk as long as a minimum floor guarantees a proper prudential	The draft RTS has been changed removing the annex that included the business risk scenarios. The definition of these scenarios is left to the CSD. The floor is kept to guarantee a minimum amount of capital against this risk.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	of scenarios (i.e. no fixed percentages); (b) a distinction between the scenarios that apply to all CSDs and those that apply only to CSDs offering banking-type ancillary services.	floor.	
9. Art. 8: Capital requirements for winding-down or restructuring and Annex I			
9.1. Definitions of winding down and restructuring	As regards Annex I (pp. 67-68), respondents agree with the proposed definitions of restructuring (situations where the CSD no longer meets capital requirements but is able to continue to provide core services) and winding-down (situations where the CSD is no longer in a position to continue to provide all core services required under the CSDR licence) contained in paras. 1 and 2 respectively.		No change to the draft RTS.
9.1. Proportionality	Respondents welcomed the recognition that ’the scenarios shall be commensurate with the nature of the business of the CSD’. Respondents suggest that CSDs with the simplest and lowest risk profiles, including a low level of interconnectedness with non-	This aspect should be captured by an appropriate design of the scenarios. However, the split between scenarios for standard CSDs and CSD offering banking-type ancillary services may not be obvious. The impact of each scenario (including whether the	The draft RTS do not contain a distinction between scenarios for CSDs and scenarios for CSDs offering banking-type ancillary services.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	domestic markets, should be able to assess capital requirements based on a shorter restructuring/winding-down period than CSDs with a more complex risk profile.	impact is immaterial) should be addressed by all CSDs.	
9.2. Scenarios distinguish between CSDs and CSDs offering ancillary services	Respondent observed that the list of proposed events may not be appropriate, especially for non-bank CSDs. For example, the 'failure of significant counterparties' referred to in point (a) will typically not lead to a restructuring or winding-down of a CSD, since non-bank CSDs are not exposed to counterparty credit risk in relation to their participants, unlike CCPs. The same reasoning applies in the case of a 'severe outflow of liquidity'. It will thus be impossible for most CSDs to include the listed scenarios *in a meaningful way in their winding-down plan*. Proposal 1: Remove all references to 'idiosyncratic events' and 'systemic-wide events', at least for non-bank CSDs. Proposal 2: Allow CSDs, together with their competent authority, to select and calibrate the relevant scenarios according to their own business models.	The approach is in line with the PFMI and EMIR. All CSDs should assess the scenarios anyway, even if they conclude that there is no effect for them.	The winding-down/or restructuring scenarios should be applied by all CSDs.
9.3. Total gross	Using gross expenses as a reference is also inappropriate, as business risk should be	Some deduction is allowed under the PFMI principles. Other deductions should be allowed	The final draft RTS includes the possibility of including certain

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
expenses	primarily covered by net income (current or planned net income or EBIT). This would avoid unnecessarily high capital requirements, e.g. in the case of a CSD that would remain profitable after the business risk scenarios described in Annex II had materialised.	only if recognised under related regulations.	deductions to the estimates for business risk, as long as the prudential floor is maintained.
9.4. Remove certain expenses from gross expenses	CSDs should be able to remove certain expenses from gross expenses, in particular: (a) when these are not relevant in a winding-down situation, e.g. because they can be cancelled immediately from the moment the CSD enters into restructuring (e.g. bonuses, staff and commercial events, large projects); and (b) when these do not involve a cash outflow, such as depreciation and amortisation expenses (see Principle 15 of the FMI, footnote 137 p.90).	With the exception of staff bonuses, whether or not many of the items indicated in (a) would generate cash flows in a 'restructuring' scenario is disputable. Although removal of these expenses from gross expenses might be more justifiable in a winding -down scenario, the costs of these activities might not be immediately separable from other operational expenses. On the other hand, expenses that do not generate cash flows and relate to depreciation and amortisation costs should be excluded.	The draft RTS should consider all the operational expenses and allow the possibility of deducting depreciation and amortisation expenses as long as they are clearly identified by the relevant accounting standards and do not generate cash flows.
9.5. Comments on the draft impact assessment	In order to ensure a proper impact assessment, respondents recommend that the EBA consider not only changes in the amount of capital to be maintained by CSDs, but also changes to the structure of that capital. Indeed, Art. 46(3) and (4) of the CSDR states	Addressed in the cost-benefit analysis in the Annex to this document.	Addressed in the cost-benefit analysis in the Annex to this document (p. 69 and 70).

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	that the amounts of capital which are not invested in cash or highly liquid financial instruments with minimal market and credit risk shall not be taken into account for the purposes of Art. 47(1). This means that some CSDs might have to overhaul their asset structure without necessarily having to raise their capital, and respondents believe that such changes in the proportion of cash and highly liquid instruments in total assets should be reflected in the impact assessment. Respondents anticipate that the draft RTS would result in an increase in minimum capital requirements for almost all CSDs, raising the bar far beyond current domestic requirements and the PFMI. The impact of the RTS on the capital level of most CSDs should be limited by the fact that CSDs are often significantly overcapitalised on the basis of current minimum requirements. This should not prevent a few CSDs from having to raise a significant amount of additional capital as a result of the implementation of the standards, with possible repercussions on the level of CSD fees.		

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Art 59(3) of the CSD-R on intra-day credit risk			
Art. 11(4): General provisions on credit risk	One respondent noted that a requirement for monthly meetings of a risk committee is not proportionate to the business of a CSD. One respondent noted that 'risk committee' should be interpreted broadly and that the board or an internal committee, depending on the circumstances and the governance structure of the CSD-banking service provider, should be allowed to be considered as such, with this stated in a recital.	The EBA agrees to broaden the term 'risk committee'.	'Risk committee' changed to 'relevant committees'. No change in frequency of meetings.
Arts. 12 and 14: Measurement and monitoring of intraday credit risk	One respondent pointed to the investments needed to deal with each of the ancillary banking services separately as this is not in line with the current practices. Credit exposures from all services are measured, monitored and managed in an integrated manner. The services listed in Section C of the Annex to the CSD-R do not correspond to separate business lines of CSD-banking service providers. One respondent asked about the requirement in a prudential context to measure the credit exposure by settlement currency instead of in one currency. Two respondents indicated that record-	Ancillary services are listed in the CSD-R and therefore this requirement is in line with Level 1; consequently, the EBA is of the view that measuring and monitoring each of the ancillary banking services should be dealt with separately. However, given that the services listed in Section C do not always correspond to business lines, the EBA accepts to make the requirement less granular. The EBA accepts that measurement of credit exposures by settlement currency in a prudential context is not as relevant as it is for liquidity management purposes. Reporting and record-keeping is to be done only if relevant/existing. Exact requirements	Arts. 12 and 14 have been changed ('each' has been deleted). 'Per settlement currency' has been deleted.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	keeping should be proportionate. One respondent proposes using a less descriptive list of counterparties' in Art.14 (c).	shall be clarified in the reporting template. The EBA has reviewed the list.	No change. List has been shortened.
Art. 15: Monitoring overnight credit risk	One respondent proposed changing 'risk' to 'exposures'.	The EBA agrees.	'Risk' has been changed to 'exposures' as proposed.
Art. 16: Management of intraday credit risk	One respondent is concerned about the limitation of granting only uncommitted credit lines.	The agreement between Member States is to allow only uncommitted credit lines.	No change.
Art. 17: Credit limits	One respondent asked for point (c), regarding credit limits to be set for each type of banking service, to be deleted, and proposed referring to 'aggregate level of applicable liquid resources' in point (d). Regarding Art 17(e) respondents mentioned that if the value of the collateral provided by a borrowing participant decreases, there is no need to reduce or withdraw the credit lines; the borrowing participant can only use its credit line up to the amount of the available collateral.	The EBA does not support deleting point (c) but has added an explanation in a recital. The EBA agrees to add 'aggregate' the wording in point (d). The EBA agrees to change the wording in point (e) to 'Where the value of collateral provided by a borrowing participant decreases, the credit availability is decreased'.	Art. 17 (c) not changed but explained in a recital. Point (d) changed to 'credit availability is decreased' as proposed. The wording of point (e) has been changed.
Arts. 18-20: Collateral, also addressed under Q5 below.	Art 18(1): respondents did not agree with the requirement in point (a) regarding the need to segregate collateral from other securities of the borrowing participant. The pledged securities are held in one or more separately	Segregation must take place where the relevant account is held (e.g. with the CSD banking service provider itself) and not at the level of any intermediary.	The wording of Art. 18 has been amended to allow a pool approach to accounts.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	identified pledged accounts of the participant within the books of the CSD-banking service provider and thus are segregated from other accounts of the participant.		
	Regarding the requirement of pooling of collateral in the participants' accounts/ pledge structure within the meaning of the Financial Collateral Directive' one respondent proposed amending the 'securities collected as collateral' into "securities provided as collateral" (18(b)).	The EBA agrees to change the wording of Art. 18(b) to allow the pool approach to collateral accounts.	
	One respondent mentioned that points (d) and (e) of Art. 59(4)of CSD-R do not indicate that pre-arranged funding arrangements are the only possible route to obtain liquidity and that even in stress events, CSDs (compared with CCPs) have access to liquidity sources other than participants' collateral.	The EBA notes that pre-arranged funding arrangements would be a new requirement; however, it has been introduced with the CSD-R. The EBA agrees to have this requirement only for liquidity risk management and not for credit risk management.	The section on 'Collateral and other equivalent financial resources' has been removed from the 'Credit risk' chapter and now forms a separate chapter.
	Respondents did not agree with the proposed hierarchy of collateral to allocate collateral to cover credit risks. They indicated that if clients agreed to pledge securities held in a pledged account, they would legally pledge as collateral *all* securities kept in that account. A segregation of collateral in the pledged account in different 'liquidity quality buckets' is not in line with the use of a pledged account, which is a basically a basket of collateral. Respondents suggested introducing	Hierarchy of collateral is a Level 1 requirement; however, the EBA notes the need for some flexibility regarding third countries.	Provisions for third countries have been introduced.

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	more flexibility to liquidate or appropriate collateral not according to the hierarchy proposed.		
	Art. 18(d): respondents pointed out that the monitoring on a near real-time basis of the credit quality, market liquidity and price volatility of each security appears disproportionate (considering the strict eligibility requirements). Frequent updating of prices would entail a higher risk of pro-cyclicality. One respondent proposed monitoring on a daily basis and if required more frequently.	The EBA finds near real-time monitoring necessary with regards to the value of collateral in the pool given that it is intraday credit risk; however, the valuation of assets provided as collateral should be at least daily.	Valuation of assets provided as collateral has been changed to ‘at least daily’.
	Art. 19(1)(a): one respondent proposed including securities issued by highly rated private institutions in the first tier of collateral. Art. 19(1)(b): the requirement for CSDs to prepare their own assessment of credit and market risk of securities accepted as collateral is disproportionate, particularly given that only governments and central banks are eligible issuers.	Securities issued by highly rated private institutions are acceptable just after securities issued by governments and international organisations. It is not clear from the comment which level of rating would provide equivalent protection.	No change.
	Art. 19(1)(c): Respondents proposed to delete average time to maturity of 2 years.	The EBA agrees.	The requirement has been deleted.
	Art. 19(1)(h): One respondent noted that the condition to liquidate assets on a same-day basis is too strict and conflicts with the T+2		The wording has been changed to ‘can be liquidated on a

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	rules. Art 20(1)(c) (also Arts. 19 and 24): Proposal to delete the condition that the collateral is to be denominated in 'a currency in which the CSD banking service provider settles transactions in a securities settlement system, within the limit of the collateral required to cover the CSD banking service provider's exposures in that currency'. It seems to imply that CSDs can only accept collateral in the currency of exposure.	The EBA disagrees because the Level 1 requirement is 'by T+2'. The EBA does not agree to delete this condition but agrees to modify the wording.	same-day basis'. The wording has been aligned with the one used in the Delegated Acts under EMIR.
Art. 21: Collateral valuation	Art. 21(2)(a)(b)(c): one respondent asked for the requirement for collateral valuation on a near real-time basis to be removed and replaced with daily valuation.	The EBA agrees, but a real-time monitoring the value of assets in the pool of collateral should then be required.	The wording has been changed so that valuation of assets provided as collateral needs to be at least daily.
Art. 22: Haircuts	Art. 22(2)(a) and (b): one respondent noted that if the CSD-banking service provider does not have or need PAFAs with a financial institution or central bank, it should not need to establish such an arrangement for the sole purpose of determining the haircut. Art. 22(2)(b): one respondent noted that there is no need for external haircut floors. It would be very difficult to implement and it is not required for CCPs. Art. 22 (2) (c): one respondent proposed changing such that collateral will not be	The EBA does not agree; the PAFA requirement comes from Level 1 and is one of the key elements of these RTS. The EBA does not agree; this requirement has been built into the framework. The EBA agrees to change the term, but to	No change. No change.

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	’liquidated’ with the central bank but can also be ’monetised’.	*’convertible into cash’.*	Art. 22(2)c) has been deleted.
	Art. 22(4)(i): one respondent proposed deleting this requirement as it overlaps with other elements of Art 22(4) as ’other collateral’ may in any case attract higher haircuts because of points (a) to (g).	The EBA agrees.	Point (i) of Art. 22(4) has been deleted in the final draft RTS.
	Art. 22(4)(h): proposal to delete the requirement for haircuts to be proportionate with wrong-way risk ’due to correlation between the participant’s creditworthiness and the collateral posted’ as this makes the haircut dependent on the client that posts the collateral. Art. 22(h) would mean e.g. that the haircut for an AAA-rated government bond would differ depending on the credit quality of the borrowing participant.	The EBA agrees to clarify the wording.	Point (h) of Art 22(4) has been clarified.
	Art 22(7): more clarity requested as to how haircuts should avoid pro-cyclicality when elements in Art. 22(2) and (4) may all lead to haircuts being increased if market conditions deteriorate, which seems to imply some form of pro-cyclicality.	The EBA agrees to clarify the wording; however, the haircuts need to be prudent and the stressed scenarios need to be taken into consideration when determining the haircuts.	Paras. (2) and (4) of Art. 22 have been clarified.
	Art. 22(9): daily review of haircuts is inconsistent with the need to avoid pro-cyclicality under paragraph 7 and unnecessary, given the strict requirements already imposed by paragraph 4.	The EBA agrees to change the word ‘reviewed’.	‘Reviewed’ has been changed to ‘monitored’ but the frequency has remained the

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
			same.
Art. 23: Collateral concentration limits	Art. 23(3): proposal to delete 'settlement currency' in point (e) as it is not related to collateral and to delete the limit for all borrowing participants in point (i). Concentration limits should not be set for type of issuer, type of asset and country of issuer.	The EBA does not agree because this is a Level 1 requirement.	No change.
	Art. 23(4): proposal to delete the reference to an internal assessment of the level of credit risk of a financial instrument or issuer. It is unnecessary and practically impossible for a CSD-banking service provider to make an internal assessment of all issuers or financial instruments. Art. 23(5): the concentration limit of 10% is relevant only when compared with the exposure of a *particular borrowing participant*, not at collateral portfolio level.	The draft RTS do not require a full fledge IRB methodology. Nonetheless, CSDs should avoid sole or mechanistic reliance on external ratings and be able to provide their own assessment on the collateral quality.	No change.
	Art. 23(5)c): proposal to refer to a commercial entity, to exclude cases in which the entities covered under (a) or (b) are part of a state-owned group.	The EBA agrees.	The wording has been changed accordingly.
	Art. 23(7): proposal to delete the latter part of the sentence as CSDs are unable to identify undertakings that are essential for the	The EBA agrees.	The wording has been changed accordingly.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	issuer's business.		
Art. 26: Reimbursement procedures and sanctioning rates	Para. 3(b): respondents noted that it does not make sense to add overnight credit exposures of the previous day to intraday exposures of the subsequent day. Any overnight exposure will form part of the intraday exposure the next day but should not be added as this would include that exposure twice. Moreover, any incoming funds offset any cumulated open exposure, and in principle, the incoming funds cannot be allocated to any dedicated open exposure but only to the total net open exposure. They ask to change the wording to 'that the amount of overnight credit not yet reimbursed is included in the intraday exposures of the next day'.	The EBA agrees to change the wording.	The wording of point (b) of Art. 26(3) has been changed.
Art. 27: Other specific credit risks	Respondents disagreed with the requirement to have on a mandatory basis a guarantee from the paying agent of issuer if custody payments are advanced. That the obligation for the issuer (via its agents) to pay custody proceeds to the holders is established by the terms and conditions of the issue. There is no other contractual mechanism such as a guarantee required for intermediaries in the custody chain to make the decision to advance custody payments or not. When it comes to the CSD layer, it is left to the	The EBA agrees to delete point (c).	The whole of Art. 27 has been deleted as, when point (c) is deleted, points (a) and (b) become superfluous.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	discretion of the CSD – and in the interest of the receiving participant(s) and of overall market settlement efficiency – to allow such payments to be advanced subject to proper rules, including but not limited to sufficient counterparty credit worthiness and collateralisation. In general any advance for custody payments should be linked to the legally enforceable right to cancel the payment and to recall the funds credited instead.		
Art. 28: Reporting of credit risk	Respondents disagreed with the requirement to report more frequently than daily as this only gives a snapshot which is outdated the moment it is sent. As such it does not add value at all. Therefore, the respondents consider the proposal in Art. 28(4) of the draft RTS to be too demanding and ask for a change from 'at least daily' to 'at least weekly, but not more frequent than daily'. The same is true of Art. 40(4) of the draft RTS.	The EBA disagrees with changing the frequency to weekly because this is about intraday credit risk.	'At least' has been deleted; reporting shall be just daily.
Art. 29: Public disclosure	Respondents asked for clarification on why Art. 29 of the draft RTS is necessary on top of Part 8 of the CRR and how the two are linked. They recommend instead asking for disclosure within the CRR disclosure report and for the addition of the elements which are not already part of the CRR requirements.	This disclosure is part of the disclosure required by the CRR. Only the elements that are not already part of CRR disclosure should be added.	No change.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	The same aspect is to be clarified with regard to Art. 41 of the draft RTS.		
Art 59(4) of the CSD-R on intra-day liquidity risk			
Art. 31: Measurement of intra-day liquidity risk	Respondents had concerns about this article. One respondent proposed introducing a materiality threshold as in the Basel Paper BCBS 248. There it is suggested that currency should be considered 'significant' if the aggregate liabilities in this currency amount to 5% or more of the bank's total liabilities. While they expect their key cash correspondents in the major economies to be able to provide real time transaction data, providers in less developed markets (without corresponding regulatory requirements) may not be able or willing to provide the required data. Forcing real-time data delivery on (cash) transactions in less developed currencies may cause service providers to cease to offer services in that currency.	The EBA's analysis shows that the 5% threshold would cover only two or three currencies. The appropriate threshold should be lower (e.g. 1%) and based on the highest negative net cumulative intraday position.	Relevant currencies have been defined based on the impact analysis.
	Regarding para. 1(a) one respondent explained that liquidity flows would be mainly determined by customers' settlement activity and cash management, which cannot be predicted prior to the customer cash	Keep para. 1(a) to (c) but move to the management section.	No change in paragraphs 1(a) to (c) but it has been moved to the liquidity management section.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	deadline. They respondent therefore proposes measuring daily gross liquidity flows rather than expected flows.		
	Regarding para. 1(b) one respondent claimed that a CSD banking service provider would not be in a position to anticipate intraday timing of flows. Most in- and out-flows would be not time dependent (except for some specific time-critical payments) as there is only a commitment to pay with good value date.	The principle of anticipating intraday timing of flows comes from the BSBC paper on monitoring intraday liquidity. The EBA finds the idea justified as the CSD-banking service provider should be prepared to manage its intraday in- and outflows. Exact forecasting is not expected.	No change in the wording; points (a) to (c) have been moved to the management section.
	Regarding para. 1(c) one respondent did not understand what the 'range of potential net funding shortfalls' could be. As all payments – with the exception of time-critical payments – would be due at the end of the day, there can only be a potential shortfall at the end of the day.		
	Regarding para. 2 one respondent claimed that the required metrics can only be calculated *ex post*. It should be clarified, what 'on an on-going basis' means.	The EBA has reviewed the metrics and assessed the requirements. A CSD-banking service provider needs to be able to identify and measure its intraday liquidity usage and liquid resources at any time.	The list of metrics to be measured has been clarified and simplified but not changed in content.
	Another respondent stated that para. 2(b)(v) deviates from the BCBS requirements and is therefore inconsistent with recital 6 of the CSD-R itself because the EBA has removed uncommitted lines of credit from available	Point (v) of Art. 31(2)(b) is a clear reflection of the Level 1 text; therefore, uncommitted lines of credit cannot be allowed.	

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	liquid resources. Furthermore, the EBA should foresee the auto-collateralisation mechanism under T2S as a liquidity source.		
	Regarding para. 2(c)(i) and (ii) one respondent stated that it is unclear and should be removed as there would be no link between settlement volumes and liquidity needs.	The EBA agrees to clarify the wording of points (i) and (ii) of para. 2(c)	The wording of point (c) of Art. 31(2) has been clarified.
	In para. 2(d) the EBA proposes including in the calculation of the liquidity need the total value of intraday credit lines extended to participants. All respondents claim that this would not be a correct method of assessing liquidity risk as there is no link between the amount of the credit lines granted to participants and the CSD-banking service provider's liquidity needs. They believe (d) should be deleted as it duplicates (a).	The EBA disagrees with deleting it but agrees to move it to credit risk chapter.	Point (d) of Art. 31(2) has been moved to the credit risk chapter.
Art. 33: Monitoring intra-day liquidity risk	All respondents were critical of this article.		
	One respondent thought that the record-keeping requirements for intraday liquidity should be more proportionate and require data to be kept at regular relevant intervals.	Reporting requirements shall be clarified in the reporting template (to be developed).	No change.
	One respondent disagreed with para. 2. The data requested under (b) to (d) would go beyond the scope of BCBS 248. Whereas the concepts of 'objectives' and 'risk appetite' would make sense in connection with credit	The EBA agrees to delete point (b) only. Deleting other points is not justified given that this article is about intraday monitoring. The EBA has followed Level 1.	Point (b) has been deleted.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	risk, the sole objective for liquidity risk management would be to fulfil all payment obligations. Regarding para. 3 one respondent indicated that the requirement would go beyond the scope of BCBS 248. This comparison could only be delivered ex post, rather than 'on a near to real-time basis'. In addition the respondent suggested having a materiality threshold, as they would expect that correspondent banks in less developed currencies would not provide near to real-time information.	The EBA is of the view that a CSD-banking service provider has to have operational and analytical tools in place to be able to monitor its intraday liquidity position at any time.	No change.
Art. 35: Managing intraday liquidity risk	All respondents disagreed with Art. 35. One respondent stated that the requirements of Art. 35 would go beyond the scope of BCBS 248. Furthermore, the scope of the draft requirements overall seem excessive, given that the focus is on intraday liquidity risk. One respondent believed that this and the following articles require revision to ensure that management of day-to-day liquidity is treated separately from management of liquidity in stress situations. The current drafting would mix the two. Making a clear distinction between the two situations would greatly benefit readability and compliance. The respondent noted that Art. 59(5) of the	The EBA has followed the Level 1 mandate here as a legal text has priority over recommendations or principles. The EBA agrees to delete some repetitions.	No change. The wording has been reviewed and amended.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	CSD-R only mandates alignment with EMIR Level 2 standards 'where appropriate'. There would be some confusion about liquidity stress tests mentioned under this article and the stress test scenarios mentioned under Art. 37. This is why the respondent suggested moving several paragraphs into Art. 37.		
	Regarding paragraph 2(b) one respondent claimed that the haircuts referenced in Art. 22 would not properly reflect the low risk inherent in the (highest quality) collateral a CSD has at hand. Concentration limits would not make sense for liquidity risk management purposes as long as assets are central bank eligible and there is no cap on usage of the central bank credit facilities.	This is rather a discussion about Art. 22 (haircuts).	No change in para. 2(b).
	Regarding para. 4 one respondent stated that the requirement to hold assets covering the default of the two largest participants ('Cover 2') seems to be adopted from EMIR. While this would make sense for a CCP there is no such obligation for a CSD. In case of a customer default, the CSD would simply not execute any further settlement transactions for the defaulted customer. The respondent therefore did not think that a 'Cover 2' requirement should be applicable to CSDs.	Level 1 refers to the default of at least one participant, and the EBA finds that the CSD-banking service providers, even though their business model is less risky than those of CCPs, are systemically important market infrastructures. This requirement is there to ensure that CSD-banking service providers have enough qualifying liquid resources and the EBA finds this proxy the most practical one.	No change.
	Regarding paras. 5 and 10 one respondent explained that it failed to see the connection		

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	with financial risk. Due to the very conservative investment policies applied by CSDs, and given the very short placement tenors, a move in market prices, market volatility and price correlation would not be expected to pose a material risk to a CSD's liquidity position. The only events that the respondent would expect to put stress on a CSD's liquidity position would be a deterioration of a CSD's credit standing (an 'idiosyncratic' event) or an unavailability of money market credit lines (a 'market disruption' event). The respondent thought that the paragraphs should be removed. Furthermore, it proposed that a stress test comparing the peak liquidity need with the available liquidity (stressed for a partial unavailability of liquidity providers) could add value.	The EBA does not agree to delete these requirements.	No change.
	Regarding para. 6 one respondent proposed that a comparison at the end of the day of the peak liquidity need with the available liquidity sources could be a reasonable test.	The EBA does not agree to change but only to add it as an additional test.	No change.
	Furthermore, one respondent was concerned that the EBA does not make a clear distinction between the CSD's own liquid assets and collateral received from participants. They do not see how the separation of assets discussed in para. 13(a) could be performed	The EBA has clarified that these are own assets.	The wording of text in Art. 35(13) has been clarified.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	for participant collateral. One respondent considered the outlined possible conflict in Art. 35(13)(b) to remove a hedge as a clear indication that the EBA considers hedging interest rate risk on investments as being a legitimate approach to investing excess liquidity. As such, they strongly urge the EBA to align with ESMA to allow for such strategies subject to fulfilment of all liquidity needs under the currently discussed draft RTS. The respondent's current understanding of the ESMA proposal would be that such hedges would not be allowed for CSDs.	The EBA agrees to align with ESMA standards.	
Art. 36: Qualifying liquid resources	Respondents suggested that uncommitted credit lines should be included in qualifying liquid resources.	Art. 59(4d) of the CSD-R does not include uncommitted credit lines as a liquid resource. They may be a source of liquidity that is used by CSDs to manage BAU liquidity. The EBA standards do not prevent uncommitted credit lines from being used; however, they cannot be considered a liquidity mitigation tool. Since banks don't hold capital against them, CSDs should be able to count them as a qualifying liquid resource.	No change
Art. 37: Stress testing liquid financial resources	Respondents noted that the stress testing proposals are overly burdensome and should be more proportional. Suggestions to address this concern included exemptions for material	Less relevant currencies: the liquidity risk should still be covered but can be covered in another currency and accounting for an FX	A methodology for the identification of relevant currencies has been defined in

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	currencies, and limiting the defined stress tests in Art. 37(6) to focus on idiosyncratic events (CSD credit downgrade) and market disruption events (unavailability of money market credit lines). One respondent requested that the frequency of stress tests should be defined in the standards. One respondent noted that there is a need to consider stressed liquidity needs differently from business as usual operations.	haircut.	the final draft RTS.
Art. 38: Unforeseen and potentially uncovered liquidity shortfalls	One respondent suggested that an exemption for immaterial currencies would be a more proportional approach. One respondent noted that a CSD cannot anticipate customers' settlement and that these are only expected to arise very short term intraday; therefore, Art.38(3)(a) and Art. 38(6) are overly burdensome and should be removed.	The EBA does not agree to remove this requirement as it comes from Level 1.	No change.
Art. 39: Arrangements of timely liquidation of collateral or investment using prearranged funding	One respondent suggested that an exemption for immaterial currencies would be a more proportional approach. One respondent noted that the use of the word '*use*' in Art. 39(12) is misleading as it implies a specific legal right under the Financial Collateral Directive. One respondent noted that CSDs' key sources of liquidity are customer cash and uncommitted credit lines, which do not	The EBA agrees to change 'use' to 'consider'. Suggest changing Art. 39(12)(b) to 'the third party entity meets sufficient prudential standards, including segregation of these assets from other assets;'	The wording of Art. 39(12) has been amended and simplified further.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	require these arrangements. Committed credit lines (which would require an arrangement as described under this article) are hardly used BAU. Therefore, the respondent suggested removing Art. 39(6)(b) and Art. 39(7). One respondent suggested clarifying the wording of Art. 39(12)(b). One respondent noted that undue burden is placed on the CSD to manage the risks of liquidity providers under Art. 37(2). Similarly, one respondent noted that (with regard to Art. 39(12)(c) a CSD can't have absolute guarantees from third parties (a third party is not party to the collateral arrangement); instead they suggest ensuring that there is adequate asset protection.		
Art. 40: Reporting of liquidity risk	One respondent noted that the notification obligations under Art. 40.3 are very broad; they suggested refining this paragraph to be more reasonable.	Art 40(3) refers to a situation where a CSD banking service provider is not able to meet the requirements of these RTS.	No change.
Responses to questions in Consultation Paper EBA/CP/2015/02			
Question 1. What are the practical impediments of calculating capital	Respondents noticed that custody risks faced by CSD participants (whether in relation to assets held directly in a CSD, via CSD links, or elsewhere in sub-custody) are covered by	The EBA is of the opinion that custody risk should not be subject to additional capital requirements as they are already considered in the methodologies to estimate operational	Art 5 has been deleted to avoid double counting.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
requirements for custody risk as set out in Article 5?	participants themselves. The risks to the CSD in relation to participants' assets, on the other hand, are fully covered under operational and legal risks. The threat to the CSD's capital is indirect, either as a result of claims for compensation received from participants (legal risk) or operational incidents affecting assets held via links maintained by CSDs with other entities (operational risk). By a practical pint of view, respondents noticed that: 1. Unlike links between CCPs, standard links between CSDs do not involve any credit exposures among the linked CSDs. 2. It is unclear how CSDs' activities can be mapped to the business lines of a credit institution, as described in art.317 of the CRR. 3. So-called "agency services" are the only services that are conceivable in a CSD context, but then the definition provided in the CRR is different from the central maintenance service as described in the CSDR. 4. The type of custody services provided by other financial institutions are different from the safekeeping of financial assets by financial market infrastructures like CSDs, and are thus not comparable from a risk perspective.	risk.	

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Question 2. Is the level of capital requirements as proposed in these draft RTS adequate to capture all the risks arising from the activities of a CSD? Are they proportionate for all the CSDs' business models? Please justify your answer.	Industry stakeholders recognise that certain CSDs are currently not subject to regulatory capital requirements or, in some cases, to requirements that are not risk-based. Therefore, it is expected that the regulatory capital requirements introduced by the CSD-R and these RTS will be almost always be higher than the current ones. Most respondents highlighted that the methodologies used are the same as those applied to banks or CCPs but the parameters used are not re-calibrated for CSDs. All CSDs claim that their business is substantially less complex than banking and different from the CCPs and that this should be reflected in lower capital requirements. Therefore, the prevailing suggestions were to simplify the treatment for smaller CSDs and reduce some of the parameters, such as the floor for business risk. Some respondents observed that, OpRisk being the main driver for capital requirements, OpRisk insurance should be recognised under the BIA.	The analysis of the information provided with the survey is summarised in the cost-benefit analysis. Although the analysis cannot be considered conclusive given the relatively small numbers of respondents, it is the EBA's opinion that there was no evidence for assuming that the calibration of credit, market and operational risk methodologies is inappropriate. It should also be noted that the methodologies for market, credit and other investment risks are risk sensitive and therefore proportional to the risk taken Other aspects, such as the fact that the requirements for winding down/restructuring should be cumulative and the corresponding 6-month floor, are included in the CSD-R and cannot be overridden by the RTS. Other aspects, such as the floor for business risk capital equals to 25% operational expenses and the treatment of OpRisk insurance in the operational risk capital requirements, were chosen for coherence with similar regulations. Furthermore, these should be very small for a typical CSD, where the main drivers remain operational risk and the separate winding-	The RTS introduce more flexibility in the design of scenarios for business risk. Some deductions are also allowed in line with the PFMI principles. It should be noted that some of these deductions are not allowed for CCPs, and this should offer some relief.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		down/restructuring capital requirements.	
Question 3. Capital surcharge (Art. 9)	The majority of respondents expressed concern that the proposed scenario used to calibrate capital requirements is unrealistic and too extreme. Respondents also added that intraday risks from the scenario that considers overnight would be further captured (and capitalised) by the CRR credit risk framework and would result in double counting of the risk. They suggested subtracting the CRR requirements from the capital surcharge to remove the overlap. One respondent noted that using the peak exposure of one day in the last year would make the capital surcharge very volatile. One respondent requested further clarification of the definition of peak exposure. One respondent noted that haircuts are already applied in the CRR credit risk framework so assuming a collateral devaluation on top is excessive. One respondent suggested a phase-in period (50% compliant 6 months after authorisation, 100% compliant after 12 months). One respondent suggested that activities that can be longer than intraday (such as securities lending) shouldn't be included in the RTS. Three alternative approaches were proposed.	The peak exposure is the highest intraday gross exposure to all participants at any point in time. The EBA ran an additional impact survey to understand further the quantitative impact of the capital surcharge. The EBA agrees that the average of the five highest exposures is more appropriate and agrees to change the stress of the collateral value to –5%. A simple fixed percentage capital add-on is not suitable given that this surcharge should reflect the intraday risk; therefore, this would not fulfil the CSDR mandate. The percentage of total credit lines available for intraday usage is not appropriate either as it is too theoretical and doesn't reflect the actual intraday risks.	The basis for calculations has been changed to the average of the five highest exposures. The market value of collateral stress has been changed to –5%.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	One respondent proposed considering the average of five worst peaks exposures and a 5% drop in market value of collateral (deducting peak exposures from the end of day exposure), or a simple fixed percentage capital add-on (as adopted by the FSB for global SIFIs). Another respondent proposed considering a percentage of total credit lines available for intraday usage, and then applying CRR haircuts on the expected collateral for drawn lines.		
Question 4. To what extent do CSD-banking service providers have the capability to have a real-time view on their positions with their cash correspondents, based on the compulsory information provided by those cash correspondents (Art. 14)?	All respondents indicate that there is a dependency on the ability of cash correspondents to provide real-time data to the CSD-banking service provider. In addition: lack of market power to induce such changes with cash correspondents and problems with less developed markets (international business factor).	The requirement of ongoing monitoring means that a CSD-banking service provider needs to be able to monitor its positions at any time.	The requirement that monitoring should be ongoing has been added for clarification.
Question 5. What might be the practical, legal or operational impediments to the methodology set out in Sub-section on	Respondents raised several concerns about Sub-section 4, 'Collateral and other equivalent financial resources': - the 'quality-driven hierarchy' of collateral introduced by Art. 18 and further detailed by	Due to the extensive list of impediments reported by the respondents, Section 4 has been reviewed with regards to the proposed segmentation of collateral, the collateral eligibility requirements, the collateral	The requirement for monitoring collateral has been changed to 'at least daily'. Some amendments to the

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Collateral and other equivalent financial resources (Art. 18)?	Arts. 19 and 20 ('artificial segregation', complexity, etc.); - the conditions and restrictions laid down on the 'eligible' collateral, even for highly liquid collateral with minimal credit and market risk; - the requirements regarding the frequency of valuing eligible collateral; - the criteria to define the adequate level of haircuts. In that regard, on the minimum haircut floors, one respondent questioned whether it was appropriate for a CSD-banking service provider to rely more on third-party commercial haircuts, using the risk principles of external providers, rather than relying on proprietary risk principles; - the risk of pro-cyclicality based on the proposed text (one respondent refers to the valuation frequency, another to the proposed minimum haircut floors which will be increased by the counterparty in a pre-arranged funding arrangement if market conditions deteriorate). One respondent mentioned that points (d) and (e) of Art 59(4) of the CSD-R do not indicate that pre-arranged funding arrangements are the only possible route to obtain liquidity and that even in stress events, CSDs (compared with CCPs) have access to liquidity sources other than participants'	valuation and haircuts. The collateral section has been separated from the credit risk section and forms a separate chapter now. The EBA does not agree with changing the hierarchy of collateral as this is one of the underlying principles that changes with these RTS.	wording have been accepted in order to take into account current practices.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	collateral. One respondent pointed to the distinction between collateral assets allocated to cover credit risk and collateral 'used' in case of a participant's failure when collateral might have to be monetised/liquidated to cover potential liquidity needs (liquidity risk management). In case of a participant's default, the CSD will choose priorities 'using' the collateral (insofar as needed), depending on the scenario and market conditions at that moment.		
Question 6. What are the practical impediments of Art. 24?	All respondents had concerns about Art. 24 as proposed in the CP. Regarding para. 2(a) all respondents argue that settlement values are not a reasonable way of limiting bank guarantees. They think that there should not be any limitation. The decision should be left to the management. But if there were a limitation then credit exposure should be considered. A proxy for limitation could be capital.	The EBA agrees to delete this point.	Point (a) of Art. 24(2) has been deleted.
	Regarding para. 2(e) one respondent claims that the reference to 'the period of liquidation of the portfolio of the defaulting borrowing participant providing it' appears out of context. It is not clear to the respondent which portfolio is to be liquidated. The respondent suggested it be shortened to read 'it can be honoured on demand'.	Indeed the original wording was misleading and should be changed as suggested by the respondent.	Paragraph 2(d) of the new Article 15 was changed accordingly.

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	One respondent saw para. 2(f) as unnecessary as long as the CSD considers the credit exposure of the issuer of the guarantee in the aggregation of the credit exposure it has as a consolidated group. The respondent proposed removing the paragraph.		No change to para 2(f)
	Regarding para. 2(h) all respondents believed that the condition is virtually impossible to satisfy and proposed removing it. As a result of this requirement, the CSD would benefit from two credit enhancements to cover the same risk (a cash loan to the borrowing participant). The requirement would make the issuance of a bank guarantee extremely expensive as the issuer would have to price in not only the applicant's risk but also the cost of posting additional collateral to the beneficiary.		No change to para 2(h).
	Regarding para. 2(i) one respondent believed that this condition was not realistic. The CSD-banking service provider should ensure that it has sufficient other liquidity arrangements to bridge the gap until the letter of credit is honoured. These elements would not be proportionate and would have a significant impact on the cost and/or efficiency of the 'bridge', which is often praised as the only model of CSD interoperability in the EU, with proven efficiency over more than 30 years.	The EBA disagrees. However, a new, separate, article has been introduced regarding credit risk in interoperable link.	No change to para. 2(i) but a new article has been introduced.
	Additionally, one respondent asked that the EBA allow the CSD-banking service providers to use	The use of capital as equivalent financial resource should be constrained. In particular, this should be allowed only to cover exposures to central banks, multilateral	The new Article 15 has been amended accordingly.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	capital as an equivalent financial resource.	development banks and international organisations that are not otherwise exempted from collateral requirements.	
Question 7. To what extent do CSD-banking service providers hold their intraday liquidity risk buffers independently to other liquidity risk buffers, such as the Liquidity Coverage Ratio (LCR)? If this is not currently done, are there any obstacles to ensuring this? Can CSD-banking service providers estimate the intraday buffer assets required to meet Article 35 compared to the assets that they currently hold that would qualify as eligible liquid assets under these RTS beyond the minimum LCR standard?	One respondent explained that, in case of an intraday liquidity disruption, a financial institution would naturally utilise the entire liquidity buffer at its disposal to fix its intraday liquidity issue. The artificial distinction between liquidity pools for LCR (30-day horizon) and for the RTS (intraday/overnight) would be neither useful from a pure liquidity risk management view nor required under the CRR or CSD-R. As such, two different and cumulative liquidity pools for the same liquidity risk would not make any sense at all. Therefore only integrated liquidity management to fulfil all internal and regulatory requirements with the same pool of liquid assets is in the respondent's view an adequate approach. Another respondent would like to discuss this question with the EBA because it is not sure if it has understood the question. Furthermore, the respondent clarified that it does not use HQLA provided by participants as collateral to fulfil its CRR requirements on LCR.	Liquidity resources, in accordance with the Level 1 text do not necessary constitute a separate liquidity buffer. Therefore, no reference to LCR (or other similar buffers) should be introduced.	The chapter on liquidity resources was amended to clarify the requirements concerning qualifying liquidity resources.