



EBA/CP/2015/02

27/02/2015

Consultation Paper

Draft Regulatory Technical Standards

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

1. Responding to this Consultation

The EBA invites comments on all proposals put forward in this paper and in particular on the specific questions summarised in 5.2.

Comments are most helpful if they:

- respond to the question stated;
- indicate the specific point to which a comment relates;
- contain a clear rationale;
- provide evidence to support the views expressed/ rationale proposed; and
- describe any alternative regulatory choices the EBA should consider.

Submission of responses

To submit your comments, click on the 'send your comments' button on the consultation page by 27.04.2015. Please note that comments submitted after this deadline, or submitted via other means may not be processed.

Publication of responses

Please clearly indicate in the consultation form if you wish your comments to be disclosed or to be treated as confidential. A confidential response may be requested from us in accordance with the EBA's rules on public access to documents. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by the EBA's Board of Appeal and the European Ombudsman.

Data protection

The protection of individuals with regard to the processing of personal data by the EBA is based on Regulation (EC) N° 45/2001 of the European Parliament and of the Council of 18 December 2000 as implemented by the EBA in its implementing rules adopted by its Management Board. Further information on data protection can be found under the Legal notice section of the EBA website.

2. Executive Summary

Regulation (EU) No 909/2014 ('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).

This Consultation Paper (CP) includes three draft RTS:

- a) The capital requirements for CSDs (Article 47 of the CSD-R);
- b) The additional risk-based capital surcharge reflecting the risks, including intraday credit and liquidity risks, of 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 intraday (Article 59).

EBA must submit these draft RTS to the Commission by 18 June 2015.

The CSD-R introduces a distinction between central securities depositories ('CSDs') offering banking-type of ancillary services and licensed as a credit institution and those CSDs that are not permitted to offer banking-type of 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 specify a prudential framework for those CSDs that provide banking-type ancillary services. These requirements would, as specified in the CSD-R, come in addition to those required by Regulation (EU) No 575/2013 ('CRR') and will specifically address the intraday credit and liquidity risks that these CSDs are exposed to.

The RTS on capital requirements specifies the definition of capital, which follows the definition of capital in Regulation (EU) No 648/2012 (EMIR). CSDs providing banking-type of ancillary services need to comply in parallel with the capital requirement rules of the CRR. The RTS addresses 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 of ancillary services. The methodology proposed in the CP is based on the highest aggregated intraday exposure over the most recent calendar year and on the assumption that the corresponding collateral loses 10% of its market value. The risk-weighted residual exposure amounts shall be calculated in accordance with 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 two parts, one covering credit risk and the other 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 focuses on the areas where the CSD-R mandate is not met by the CRR.

The first part of this chapter specifies the framework to measure, monitor and manage intraday credit risk, and also specifies conditions for collateral management and haircuts to be applied. The second part specifies the framework for intraday liquidity risk. The section on monitoring intraday liquidity risks largely follows the principles of the BCBS paper on '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 intraday liquidity exposures.

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 ('CPSS-IOSCO principles' or 'PFMIs')¹ and the BCBS principles for the monitoring and the management of intraday liquidity.

¹ [Principles for financial market infrastructures](#), issued by CPSS and IOSCO on April 2012.

3. Background and rationale

This consultation paper is based on the mandates that Regulation (EU) No 909/2014 ('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.

The CSD-R introduces a distinction between central securities depositories ('CSDs') offering banking-type of ancillary services and licensed as a credit institution and those CSDs which are not permitted to offer banking-type of 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 provide only the banking-type ancillary services, or
- b) by designating one or more credit institution that is only used to provide the banking-type ancillary services referred to in Section C of Annex to the CSD-R and not to carry out any other activities.

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.²

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.

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 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 intra-day credit, inter alia, to the participants in a securities settlement system or other users of CSD services (Article 54 CSD-R);

² [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 intraday (Article 59 CSD-R);

Article 60 of the CSD-R empowers the EBA to issue guidelines addressed to competent authorities with the objective to ensure 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 contemplate to issue any guidelines on this topic in the short term.

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 ('CPSS-IOSCO principles' or 'PFMIs')³ and the BCBS principles for the monitoring and the management of intraday liquidity.⁴

Where applicable, the CRDIV/CRR⁵ have also been considered in accordance with the explicit recommendation of Article 59 of the CSD-R (reported in Annex I of this Consultation Paper) as well as the regulation on capital requirements for central counterparties ('CCPs')⁶ issued under EMIR.⁷

Article 47 of the CSD-R - Capital requirements

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 at guaranteeing 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.

The first layer of protection imposes on 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 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

³ [Principles for financial market infrastructures](#), issued by CPSS and IOSCO on April 2012.

⁴ [Monitoring tools for intraday liquidity management](#), issued by Basel Committee on Banking Supervision on April 2013.

⁵ [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 \('CRR'\)](#) 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 \('CRDIV'\)](#).

⁶ [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](#).

⁷ [Regulation \(EU\) No 648/2012 of 4 July 2012 on OTC derivatives, central counterparties and trade repositories \(EMIR\)](#).

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.

Article 54 of the CSD-R – Additional capital surcharge

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

The methodology proposed in the CP is based on the highest aggregated intraday exposure over the most recent calendar year and the assumption that the corresponding collateral loses 10% of its market value. The risk-weighted residual exposure amounts shall be calculated in accordance with credit risk methodologies set out in the CRR assuming that those exposures are end-of-the-day exposures.

Article 59 of the CSD-R – Credit and Liquidity Risk including intraday credit and liquidity risk

Article 59 of the CSD-R introduces prudential requirements for monitoring, measuring, managing and reporting credit and liquidity risks, including those that occur intraday, 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 applied for specific situations if collateral is other than highly liquid with minimal market and credit risk.

These draft RTS are therefore divided into two parts, one covering credit risk and the other liquidity risk framework. The draft RTS accept that the banking service provider is also subject to the requirements of the CRR, and therefore focusses on the areas where the CSD-R mandate is not met by the CRR. It should be noted that the draft RTS also follow the CPSS-IOSCO principles for market infrastructures.

The first part of this chapter specifies the framework to measure, monitor and manage intraday credit risk given that CRR covers credit risk in long term only and currently there are no frameworks for intraday credit risk. EBA also analysed the current practices of I-CSDs.

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

Next steps

The three sets of draft RTS mandated under Articles 47, 54 and 59 of the CSD-R will be submitted to the European Commission by 18 June 2015 following a two months open consultation.

4. Draft RTS on certain prudential requirements for CSDs

In between the text of the draft RTS that follows, further explanations on specific aspects of the proposed text are occasionally provided, which either offer examples or provide the rationale behind a provision, or set out specific questions for the consultation process. Where this is the case, this explanatory text appears in a framed text box.

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EUROPEAN COMMISSION

Brussels, **XXX**
[...] (2015) **XXX** draft

COMMISSION DELEGATED REGULATION (EU) No .../..

of **XXX**

on

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

COMMISSION DELEGATED REGULATION (EU) No .../..-**of [date]****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****(Text with EEA relevance)**

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 236/2012⁸, and in particular the third subparagraph of Article 47(3), the third subparagraph of Article 54(5) and the third subparagraph of Article 59(5) thereof,

Whereas:

- (1) [General] 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 should 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 operations if necessary.
- (2) Given that the provisions concerning credit and liquidity risks relating to CSDs explicitly require that internal rules and procedures 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, references to 'group' should be taken to refer to the group of undertakings consisting of a parent undertaking and its subsidiaries.
- (3) [Ref. PFMI] In defining these regulatory standards 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 ('CPSS-IOSCO Principles') have been taken into account. The capital treatment of credit institutions under Regulation (EU) No 575/2013⁹ has

⁸ OJ L 257, 28.8.2014, p. 1.

⁹ OJ L 176, 27.6.2013, p.1.

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) [Definition Capital] The definition of capital in this Regulation should follow the definition provided in Regulation (EU) No 648/2012 (EMIR). Such a definition appears to be the most suitable in relation to the regulatory requirements given that the definition of capital in Regulation (EU) 648/2012 was specifically designed for market infrastructures. However, the CSDs authorised to provide banking services under Regulation (EU) No 909/2014 are required to meet capital requirements under this Regulation and own funds requirements under Regulation 575/2013 at the same time. They are required to meet the own funds requirements provided for in Regulation EU (No) 575/2013 with instruments that meet the definition of capital of that Regulation. However, they should be allowed to meet the additional capital requirements of this Regulation with instruments meeting the requirements of either Regulation.
- (5) As the capital shall be at all times sufficient to ensure an orderly winding down and an adequate protection against the relevant risks as required by Regulation (EU) No 909/2014, it is necessary to establish an ‘early warning’ tool to enable the competent authorities to gain knowledge sufficiently in advance of the situation in which the capital of the CSD is close to the capital requirement. Such an ancillary tool is the introduction of a notification threshold which is set at the level of 110% of the capital requirement.
- (6) [wd-restructuring expenses] In order to ensure that a CSD would be able to organise an orderly winding-down or restructuring of its activities if required, 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 the 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.
- (7) [wd-restructuring period] 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 winding-down or restructuring of its activities should be based on the CSD’s own estimate. However, this timeline should not be lower than a conservative minimum number of months required for winding-down or restructuring introduced by Regulation (EU) No 909/2014 in order to ensure a prudent level of the capital requirements.
- (8) [wd-restructuring scenarios] Notwithstanding the need for each CSD to elaborate scenarios for winding-down or restructuring of CSD’s activities adapted to their

business model, a detailed set of requirements should limit the discretion on the definition of such scenarios in order to obtain a harmonised approach.

- (9) [opRisk] Notwithstanding the difficulties in quantifying the exposure to operational risk, Regulation (EU) No 575/2013 should be the relevant benchmark for the purpose of establishing the capital requirement for CSDs. Consistently with Regulation (EU) No 575/2013, the concept of operational risk should include legal risk also for the purposes of this Regulation.
- (10) [custody risk] While operational risk generally covers risks relating to securities owned by the same CSD, specific provisions are necessary as concerns custody risk as these refer to the risk of custody of securities in another CSD or in an intermediary in the case of indirect links.
- (11) [investment risk] A CSD may also face investment risks on the assets that it owns and those that it holds on behalf of its participants. Investment risk is the risk of loss faced by a CSD when it invests its own or its participants' resources, such as collateral. Directive EC/2013/36 ('CRDIV'), Regulation (EU) No 575/2013 ('CRR') and Regulation (EU) No 152/2013¹⁰ [Capital requirements for CCPs] 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. In particular, counterparty credit and market risks are not expected to be the major sources of risk for CSDs and the complexity of the investments allowed by the requirements on the investment policy under Regulation (EU) No 909/2014 justify the use of advanced methods provided for in Regulation (EU) No 575/2013. For the purposes of this Regulation, capital requirements for investment risk means the sum of the capital requirements for credit risk and counterparty credit risk and market risk stemming from the CSD's investments of the assets that it owns and those that it holds on behalf of its participants.
- (12) [business risk] Business risk should refer to the risk that a CSD assumes due to potential changes in general business conditions that are likely to impair its financial position as a consequence of 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 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. A CSD should develop its own estimate of the capital required against business risk under a set of stress scenarios provided in this Regulation in order to cover the risks that are not already captured by the methodology used for covering the operational risk. When a CSD produces its own estimates, a minimum level of capital should be introduced in order to ensure a prudent level of the capital requirements.
- (13) [Recitals on Article 54 CSD-R: Capital surcharge] The additional capital surcharge for risks related to banking-type ancillary services should cover all of the risks related to the provision of intraday credit to participants or other CSD users. Where

¹⁰ OJ L 52, 23.2.2013, p.37.

overnight or longer credit exposures result from the provision of intraday credit, the corresponding risks should be measured and addressed with the methodologies already provided by the Regulation (EU) No 575/2013, which is well adapted for this purpose. Intraday credit risks, however, require a special treatment since they are not explicitly covered by the Regulation (EU) No 575/2013 or other Union legislation concerning the banking sector. The methodology to cover specifically 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 exposure. At the same time, the methodology should give the proper incentives to the providers of banking-type ancillary services, including the incentive to collect the highest quality of collateral and select creditworthy counterparties. Notwithstanding the obligation for the providers of banking-type ancillary services to properly assess and test the level and value of collateral and the haircuts, the methodology used to determine the additional capital surcharge for intraday credit risk should consider the case that a sudden decrease in the value of the collateral exceeds estimates and results in partially uncollateralised residual credit exposures.

- (14) Given that Article 54(8) of Regulation (EU) No 909/2014 requires the definition of rules on the additional capital surcharge referred to in point (d) of Article 54(3) and point (e) of Article 54(4) of that Regulation, and since that additional surcharge reflects the provision of intra-day credit, inter alia, to the participants in a securities settlement system or other users of CSD services, intraday credit risk exposure should refer to the loss that a CSD providing banking-type ancillary services or credit institutions designated by a CSD to provide banking-type ancillary services would face if a borrowing participant were to default.
- (15) Given that Regulation (EU) No 575/2013 establishes, in Title II of Part Three the risk weights to be applied to exposures to the European Central Bank, as well as to central governments and central banks of Union Member States, the same risk weights should apply to the intraday credit exposures assuming that those exposures are end-of-day exposures.
- (16) 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.
- (17) References to a 'CSD-banking service provider' is made to describe the entities that provide banking-type ancillary services to users of CSD services in accordance with Regulation (EU) No 909/2014. These entities should include designated credit institutions and CSDs authorised to provide banking-type ancillary services in accordance with Regulation (EU) No 909/2014.
- (18) 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 shall ensure that the payment and settlement obligations are effected as they fall due, including intraday, in all settlement currencies of the securities settlement system operated by a CSD.

- (19) Given that all liquidity risks, except intraday, are already covered by Directive EC/2013/36 and Regulation (EU) No 575/2013, this Regulation should focus on intraday risks.
- (20) In order to ensure CSD-banking service provider is sufficiently sound even in adverse conditions, its stress testing of liquid financial resources should be rigorous and forward looking; tests should consider a range of extreme but plausible scenarios and be conducted for each settlement currency offered by the CSD-banking service provider, including but not limited to the default of its largest cash correspondent in that currency; and the CSD-banking service provider should consider the impact this would have on each of the metrics identified in this Regulation.
- (21) Given the character of these institutions as 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.
- (22) 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, including investors that are non-Union residents, it is desirable to include all of the regulatory technical standards required by Regulation (EU) No 909/2014 in a single Regulation.
- (23) This Regulation is based on the draft regulatory technical standards submitted by the European Banking Authority to the Commission.
- (24) The European Banking Authority (EBA) has worked in close cooperation with the European System of Central Banks (ESCB) and has consulted 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 1093/2010¹¹,

HAS ADOPTED THIS REGULATION:

¹¹ 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).

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

For the purposes of Article 47(1) of Regulation (EU) 909/2014, a central security depository ('CSD') shall, at all times, hold the level of own funds specified in Article 3 with instruments that meet the conditions of Article 2.

Article 2

Definition of capital of a CSD

1. For the purposes of Article 1, and without prejudice to the requirements of Article 46(4) of Regulation (EU) No 909/2014, 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 of 8 December 1986 on the annual accounts and consolidated accounts of banks and other financial institutions;
 - (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.
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 may, for the purposes of paragraph 1, hold capital instruments that qualify as own funds instruments as referred to in point 119 of Article 4(1) of Regulation (EU) No 575/2013.

Article 3

Level of capital requirements for a CSD

1. For the purposes of Article 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 custody risks, referred to in point (a) of Article 47(1) of Regulation (EU) No 909/2014, calculated in accordance with Article 5 where it has its securities or its clients' securities under custody by another CSD or an intermediary within a CSD link;
 - (c) 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 6;
 - (d) 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 7;
 - (e) 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 8.
2. A CSD shall have procedures in place to identify all sources of risks that may impact its on-going functions and shall consider the likelihood of potential adverse effects on its revenues or expenses and its level of capital.
 3. Where the amount of capital held by a CSD according to paragraph 1 is lower than 110 % of the capital requirements ('notification threshold'), the CSD shall immediately notify the competent authority and keep it updated at least weekly, until the amount of capital held by the CSD returns to a level above the notification threshold.
 4. That notification shall be made in writing and shall contain the following elements:
 - (a) the reasons for the CSD's capital being below the notification threshold and a description of the short-term perspective of the CSD's financial situation;
 - (b) a comprehensive description of the measures the CSD intends to adopt to ensure the on-going compliance with the capital requirements.

Article 4

Level of capital requirements for operational, legal and custody risks

1. For the purposes of point (a) of Article 3(1), a CSD shall calculate its capital requirements for operational and legal risks, in accordance with paragraphs 2 to 5.

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 with permission to use the Advanced Measurement Approaches ('AMA') as referred to in Articles 321 to 324 of Regulation (EU) No 575/2013, shall calculate its capital requirements for operational and legal risks in accordance with the provisions of that Regulation relating to the AMA.
3. 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 ('TSA') as referred to in Articles 317 to 319 of Regulation (EU) No 575/2013, shall calculate its capital requirements for operational and legal risks in accordance with the provisions of that Regulation relating to TSA.
4. A CSD that is not authorised in accordance with Article 54(2) of Regulation (EU) No 909/2014 or 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 either the AMA as referred to in Articles 321 and 324 of Regulation (EU) No 575/2013, or TSA as referred to in Articles 317 to 320 of that Regulation, shall calculate its capital requirements for operational and legal risks in accordance with the provisions of the Basic Indicator Approach as referred to in Articles 315 and 316 of that Regulation.
5. A CSD that calculates its capital requirements for operational and legal risk in accordance with the AMA, as referred to in paragraph 1, shall hold capital which shall be at all times more than or equal to 80% of the capital that would be required in accordance with the Basic Indicator Approach referred to in Articles 315 and 316 of Regulation (EU) No 575/2013.

Article 5

Level of capital requirements for custody risks

For the purposes of point (b) of Article 3(1), a CSD shall calculate its capital requirements for custody risks where it has its securities or its clients' securities under custody by another CSD or an intermediary within a CSD link. It shall do so in accordance with the methodology referred to in Articles 317 to 319 of Regulation (EU) No 575/2013 on the standardised approach for operational risk.

Explanatory text for consultation purposes

Question 1: What are the practical impediments of calculating capital requirements for custody risk as set out in this Article?

Article 6

Level of capital requirements for investment risk

1. For the purposes of point (c) of Article 3(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 paragraph 4. For the purpose of this sub-paragraph (b), 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 fulfilling the requirement of Article 94(1) of Regulation (EU) No 575/2013 may calculate their capital requirements for market risk in accordance with the derogation in Article 94 of Regulation (EU) No 575/2013.
2. For the calculation of a CSD's risk-weighted exposure amounts for credit risk, as referred to in point (i) of paragraph 1(a), 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;
 - (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) referred to in Articles 142 to 191 of Regulation (EU) No 575/2013, the CSD shall apply the Standardised Approach for credit risk referred to in Articles 107 to 141 of that Regulation;
 - (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 a 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.
3. For the calculation of a CSD's risk-weighted exposure amounts for counterparty credit risk as referred to in the second sentence of paragraph 1(a), a CSD shall use one of the methods provided for in Articles 271 to 282 of Regulation (EU) No 575/2013 [Mark-to-market method, original exposure method or standardised

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

4. For the calculation of capital requirements for market risk, as referred to in point (b) of paragraph 1, the CSD shall apply the methods referred to in Title IV of Part III of Regulation (EU) No 575/2013. 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 Chapter 5 of Title IV of Part III of that Regulation.

Article 7

Capital requirements for business risk

1. For the purposes of point (d) of Article 3(1), the capital requirements of a CSD for business risk shall be the higher of the following:
 - (a) the sum of all estimates resulting from the application of paragraph 2;
 - (b) 25% of the CSD's annual gross operational expenses.
2. For the purposes of point (a) of paragraph 1, a CSD shall:
 - (a) calculate an estimate of the capital required to cover for all the losses resulting from applying each of the business risk scenarios referred to in Annex II of this Regulation;
 - (b) document the assumptions and the methodologies used to estimate the expected losses referred to in point (a);
 - (c) shall review and update the scenarios referred to in Annex II at least annually.
3. For the purposes of point (b) of paragraph 1, the following shall apply:
 - (a) the CSD's annual gross operational expenses shall consist of at least total personnel expenses including wages, salaries, bonuses and social costs; total general administrative expenses, and, in particular, marketing and representation expenses; insurance; other employees' expenses and travelling; real estate expenses; IT support; telecommunications; postage and data transfer; external consultancy and other services; tangible and intangible assets' depreciation and amortisation; impairment and disposal of fixed assets and be determined in accordance with one of the following:

- (i) the International Financial Reporting Standards (IFRS) adopted pursuant to Regulation (EC) No 1606/2002¹²;
 - (ii) Council Directives 78/660/EEC¹³, 83/349/EEC¹⁴ and 86/635/EC¹⁵;
 - (iii) generally accepted accounting principles of a third country determined to be equivalent to IFRS in accordance with Commission Regulation (EC) No 1569/2007¹⁶ or accounting standards of a third country the use of which is permitted in accordance with Article 4 of that Regulation;
- (b) the CSD shall use the most recent audited information from their annual financial statement;
- (c) Where a CSD has not completed business for one year from the date it starts its operations, a CSD shall apply gross operational expenses projected in its business plan.

Article 8

Capital requirements for winding-down or restructuring

For the purposes of point (e) of Article 3, 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 Annex I, 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 7(3), by twelve ('monthly gross operational expenses');
- (c) multiply the monthly gross operational expenses resulting from point (b) by the longer between (i) and (ii):
 - (i) the time span referred to in point (a);
 - (ii) six months.

¹² OJ L 243, 11.9.2002, p. 1.

¹³ OJ L 222, 14.8.1978, p. 11.

¹⁴ OJ L 193, 18.7.1983, p. 1.

¹⁵ OJ L 372, 31.12.1986, p. 1.

¹⁶ OJ L 340, 22.12.2007, p. 66.

Explanatory text for consultation purposes

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.

TITLE II

Capital surcharge for CSDs with a banking licence and designated credit institutions, as referred to in Article 54 of Regulation (EU) No 909/2014

Article 9

Capital surcharge resulting from the provision of intra-day credit

1. For the purposes of calculating the additional capital surcharge related to intraday exposures, as referred to 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 identify, over the most recent calendar year, the date with the highest intraday credit exposure ('peak exposure') resulting from providing the services set out in Section C of Annex 1 of Regulation 909/2014;
 - (b) it shall assume that all the collateral collected in relation to the peak exposure, after the application of the haircuts, loses 10% of its market value;
 - (c) it shall calculate for this peak exposure the own funds requirements for credit risk in accordance with paragraph 2 assuming that those exposures are end-of-the-day exposures ('capital surcharge').

Explanatory text for consultation purposes

The approach outlined above will require the development of intra-day monitoring of credit exposures, which appears to be the main risk to CDS providing banking-type ancillary services. This approach extends the banking framework for credit risk to intraday credit exposures in the most natural manner. This approach consequently requires that the intraday peak exposure will be subject to a capital requirement equivalent to the treatment of end-of-day credit exposures in the banking framework, although in a more prudent way as collateral posted is assumed to be stressed. The approach would naturally also take into account the credit risk mitigation features of the collateral been used.

EBA is of a view that this methodology (i) ensures a sufficiently prudent framework, (ii) provides the proper incentives to properly record and manage risks arising from the provision of intraday credit and (iii) is compatible with the other requirements of this

Regulation regarding the monitoring measurement and and management of intraday lending.

It should be noted that while this approach is assessed to give a sufficiently conservative capital surcharge, the calibration of the 10% loss of collateral value will be subject to further analysis. Input on the appropriateness of the 10% stress on the collateral value is therefore being sought as part of this consultation.

Question 3: What are the operational or practical impediments to the implementation of the proposed methodology for the calculation of the capital surcharge? Do you envisage any amendment to the proposed methodology that might lead to a better measurement and management of those risks?

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 Part Three, Title II, Chapter 2 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 Part Three, Title II, Chapter 3 of Regulation (EU) No 575/2013, where they have permission to use the IRB approach.
3. The outstanding amount of the peak exposure as referred to in paragraph 1 shall be considered an exposure value in the meaning of Article 111 of Regulation (EU) No 575/2013 for the purpose of paragraph 2(a) and an exposure value in the meaning of Article 166 of that regulation for the purpose of paragraph 2(b). Relevant requirements of Part Three, Title II, Chapter 4 of Regulation (EU) No 575/2013 apply accordingly.

TITLE III

Prudential requirements applicable to credit institutions or CSDs authorised to provide banking-type ancillary services, as referred to in Article 59(3) of Regulation (EU) No 909/2014

Article 10

General

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) of Regulation (EU) No 909/2014, a CSD-banking service provider shall comply with all of the following requirements of Chapter I on monitoring, measuring, management, reporting and public disclosure of:
 - (a) intraday credit risk and overnight credit risk;
 - (b) relevant collateral and other equivalent financial resources used in relation to these risks;
 - (c) potential residual credit exposures;
 - (d) reimbursement procedures and sanctioning rates;
 - (e) other specific credit risks.

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 Chapter II 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).

CHAPTER I

Credit risk

Section 1

General

Article 11

General provisions on credit risk management framework

1. For the purposes of point (a) of Article 10(1), a CSD-banking service provider shall design and implement policies and procedures that:
 - (a) measure intraday and overnight credit risk in accordance with Subsection 1;
 - (b) monitor intraday and overnight credit risk in accordance with Subsection 2;
 - (c) manage intraday and overnight credit risk in accordance with Subsection 3;
 - (d) measure, monitor and manage its 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 Subsection 4;
 - (e) measure, monitor and manage its potential residual credit exposures, in accordance with Subsection 5;
 - (f) manage its reimbursement procedures and sanctioning rates, in accordance with Subsection 6;
 - (g) measure, monitor and manage its other specific credit risks in accordance with Subsection 7;
 - (h) report its credit risks in accordance with Subsection 8;
 - (i) publicly disclose its credit risks in accordance with Subsection 9.
2. The CSD-banking service provider shall review the policies and procedures referred to in paragraph 1, with the following frequency:
 - (a) at least annually;
 - (b) whenever a material change occurs or where the CSD-banking service provider voluntarily carries out a change following the assessment referred to in Article 16, and where either change affects the risk exposure of the CSD-banking service provider.

3. The policies and procedures referred to in paragraph 1 shall include the preparation and updating of a report relating to credit risks, which shall include the following:
 - (a) the metrics referred to in Article 12;
 - (b) haircuts applied reported per type of collateral, referred to in Article 22;
 - (c) changes to the policies or procedures referred to in paragraph 2(b).
4. The report referred to in paragraph 3 shall be subject to monthly review by the risk committees of the CSD-banking service provider. Where the CSD-banking service provider is an entity designated 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. Where the CSD-banking service provider breaches one or more of the concentration limits referred to in Article 23, it shall immediately report this to its risk committee, and, where it is a different entity from that of the CSD, to the risk committee of the CSD.

Sub-section 1

Measurement of Credit Risks

Article 12

Measurement of intraday credit risk

For the purposes of measurement of intraday credit risk as referred to in point (a) of Article 11(1), a CSD-banking service provider shall 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 on an ongoing basis, and which record, in particular, all of the following metrics for each counterparty and per each settlement currency:

- (a) peak and average intraday credit exposures for each banking-type ancillary service set out in Section C of the Annex to Regulation (EU) No 909/2014;
- (b) peak and average intraday credit exposure per borrowing participant, and further breakdown of credit exposures covered by:
 - (i) highly liquid collateral with minimal market and credit risk as referred to in Article 19;
 - (ii) highly liquid collateral as referred to in Article 20(1);

- (iii) other collateral as referred to in Article 20(2);
 - (iv) other equivalent financial resources as referred to in Article 25;
- (c) peak and average intraday credit exposure to other counterparties and, if secured, further breakdown of intraday credit exposures covered by:
- (i) highly liquid collateral with minimal market and credit risk as referred to in Article 19;
 - (ii) highly liquid collateral as referred to in Article 20(1);
 - (iii) other collateral as referred to in Article 20(2);
 - (iv) other equivalent financial resources as referred to in Article 25.

Article 13

Measurement of overnight credit exposures

For the purposes of measuring overnight credit exposures as referred to in point (a) of Article 11(1), a CSD-banking service provider shall measure the overnight credit exposures for each banking-type ancillary service set out in Section C of the Annex to Regulation (EU) No 909/2014 by recording on a daily basis, at the end of the day, the outstanding overnight credit exposure from the previous day.

Sub-section 2

Monitoring Credit Risks

Article 14

Monitoring intraday credit exposures

For the purposes of monitoring intraday credit risk as referred to in point (b) of Article 11(1), a CSD- banking service provider shall, in particular:

- (a) monitor, through an automatic reporting system, the intraday credit exposures related to the service referred to in Section C of Annex of Regulation (EU) No 909/2014;

Explanatory text for consultation purposes

CSD-banking service providers may have credit exposures to cash correspondents as a result of funds sent-in by participants of a CSD-banking service provider or by participants leaving cash on their accounts.

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 compulsory information provided by those cash correspondents?

- (b) maintain for a period of at least ten years a record of the intraday credit exposures for each banking-type ancillary service referred to in Section C of the Annex of Regulation (EU) No 909/2014;
- (c) record the intraday credit risks stemming from each entity on which intraday credit exposures are incurred, including:
 - (i) settlement banks;
 - (ii) payment systems;
 - (iii) securities settlement systems;
 - (iv) *nostro* agents;
 - (v) custodian banks;
 - (vi) participants to the securities settlement system operated by a CSD, at entity and group levels;
 - (vii) CSDs with interoperable links.
- (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, and for each settlement currency, how the CSD-banking service provider monitors the concentration of its intraday credit exposures, including its exposures to both of the following entities:
 - (i) entities listed in point (c);
 - (ii) entities of the same group as the entities 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 15

Monitoring overnight credit risk

For the purposes of monitoring overnight credit risk as referred to in point (b) of Article 11(1), a CSD-banking service provider shall, in relation to the overnight credit exposures and for each banking-type ancillary service referred to in Section C of the Annex of Regulation (EU) No 909/2014:

- (a) maintain a record with all the information referred to in Article 14 and with the same level of granularity as required therein, with regards to the overnight credit exposures;
- (b) record the information referred to in point (a) on a daily basis;
- (c) keep the records referred to in point (a) for a period of at least ten years.

Sub-section 3

Management of Intraday Credit Risks

Article 16

General requirements for the management of intraday credit risk

For the purposes of management of intraday credit risk as referred to in point (c) of Article 11(1), 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 of Regulation (EU) No 909/2014;
- (b) undertake the assessment referred to in point (a) at least annually;

- (c) grant only uncommitted credit lines to the borrowing participants of the securities settlement system operated by the CSD.

Article 17

Credit limits

For the purposes of managing intraday credit risk as referred to in point (c) of Article 11(1), and where setting the credit limits to an individual borrowing participant at the group level, a CSD-banking service provider shall:

- (a) assess the creditworthiness of the borrowing participant based on a methodology that does not rely fully on external opinions;
- (b) verify the compliance of collateral and other equivalent financial resources provided by a participant to cover intraday credit lines, with the requirements of Articles 18 and 24, respectively;
- (c) assess the credit limits to a borrowing participant based on the multiple relationships that the CSD-banking service provider has with the borrowing participant on which the credit exposures are incurred, such as where the CSD-banking service provider provides more than one ancillary services among those referred to in Section C of the Annex of Regulation (EU) No 909/2014 to the same participant;
- (d) take into account the level of available qualifying liquid resources in accordance with Article 36;
- (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 lines are withdrawn or credit limits are reduced ;
 - (ii) where the value of collateral provided by a borrowing participant decreases, that the credit lines are withdrawn or credit limits are reduced;
- (f) review the credit lines granted to borrowing participants at least annually based on their actual usage of credit.

Sub-section 4

Collateral and other equivalent financial resources

Article 18

General

1. For the purpose of measuring, monitoring and managing its collateral, as referred to in points (c) and (d) of Article 59(3) of Regulation (EU) No 909/2014, and in order to ensure that the collateral is in compliance with prearranged funding arrangements as referred to in point (i) of Article 59(4) of that Regulation, a CSD-banking service provider shall, in particular:
 - (a) maintain the collateral referred to in point (c) of Article 59(3) of Regulation (EU) No 909/2014, segregated from the other securities of the borrowing participant;
 - (b) accept collateral that is highly liquid with minimal credit and market risk as referred to in Article 19, or in accordance with point (d) of Article 59(3) of Regulation (EU) No 909/2014, accept other types of collateral in specific situations, provided that both of the following conditions are met:
 - (i) all the securities in the account of the borrowing participant that meet the requirements of Article 19, have already been collected as collateral;
 - (ii) all the securities in the account of the borrowing participant that meet the requirements of Article 19 and Article 20, have already been collected as collateral;
 - (c) ensure that:
 - (i) in the situations referred to in point (i) of paragraph (b), only securities referred to in Article 20(1) can be collected as collateral;
 - (ii) in the situations referred to in point (ii) of paragraph (b), only securities referred to in Article 20(2) can be collected as collateral and within the limits of available qualifying liquid resources referred to in Article 33 with the view to meeting the minimum liquid resource requirement referred to in Article 33(2);
 - (d) monitor on near real-time basis the credit quality, market liquidity and price volatility of each security collected as collateral, in accordance with Article 21;
 - (e) specify methodologies related to the haircuts applied to the collateral value, in accordance with Article 22;

- (f) ensure that the collateral remains sufficiently diversified to allow its liquidation within the periods referred to in Articles 19 and 20 without a significant market impact, in accordance with Article 23.
2. For the purpose of measuring, monitoring and managing its other equivalent financial resources, as referred to in point (c) of Article 59(3) of Regulation (EU) No 909/2014, a CSD-banking service provider shall comply with the requirements of Article 24.

Explanatory text for consultation purposes

Question 5: What might be the practical, legal or operational impediments to the methodology set out in this Sub-section?

Article 19

Highly liquid collateral with minimum credit and market risk

1. For the purposes of point (b) of Article 18(1), financial instruments shall be considered as highly liquid collateral bearing minimum credit and market risk, where they are 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) a multilateral development bank among those referred to 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 carried out employing a defined and objective methodology that does not fully rely on external opinions and that takes into consideration the country risk of the particular country where the issuer is established;

- (c) the average time-to-maturity of the banking service provider's portfolio does not exceed two years;
- (d) they are denominated in one of the following currencies:
 - (i) a currency the risks of which the CSD-banking service provider is able to manage;
 - (ii) a currency in which transactions are settled by the CSD-banking service provider in the securities settlement system, within the limit of the collateral received in that currency;
- (e) they are freely transferable without any legal constraint or third party claims that impair liquidation;
- (f) they have one of the following:
 - (i) an active outright sale or repurchase agreement market, with a diverse group of buyers and sellers, including under 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 funding arrangement as referred to in point (e) of Article 59(4) of Regulation (EU) No 909/2014 and Article 37;
- (g) price data on these instruments are publicly available on close to a real time basis;
- (h) they can be liquidated on a same-day basis.

2. For the purpose of point (b) of Article 18, transferable securities and money market instruments shall be considered as highly liquid collateral bearing minimum credit and market risk, where all of the following conditions are met:

- (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 rely fully 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 rely fully on external opinions;
- (c) they are denominated in one of the following currencies:

- (i) a currency the risk of which the CSD-banking service provider is able to manage;
 - (ii) a currency in which the CSD-banking service provider settles transactions in the securities settlement system, within the limit of the collateral required to cover the CSD-banking service provider's exposures in that currency;
- (d) they are freely transferable and without any legal constraint or third party claims that impair liquidation;
- (e) they have one of the following:
- (i) 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 under stressed conditions;
 - (ii) they can be liquidated by the CSD-banking service provider through a prearranged funding arrangement as referred to in point (e) of Article 59(4) of Regulation (EU) No 909/2014 and Article 39;
- (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 Sub-section;
 - (ii) a CSD-banking service provider or an entity that is part of the same group as a 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 an EEA 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.

Article 20

Other collateral

1. For the purposes of point (i) of point (b) of Article 18(1), other type of collateral to be used by a CSD-banking service provider shall be financial instruments that meet all of the following conditions ('highly liquid assets - HLA'):

- (a) they are freely transferable without any legal constraint or third party claims that impair 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 one of the following currencies:
 - (i) a currency the risk of which the CSD-banking service provider is able to manage;
 - (ii) a currency in which the CSD-banking service provider settles transactions in the securities settlement system, within the limit of the collateral required to cover the CSD-banking service provider's exposures in that currency;
- (d) the CSD-banking service provider has a prearranged funding arrangement as referred to in point (e) of Article 59(4) of Regulation (EU) No 909/2014 and Article 37, which provides for the liquidation of these instruments on a same-day basis.

2. For the purposes of point (ii) of Article 18(d), other type of collateral to be used by a CSD-banking service provider shall be financial instruments that meet the following conditions ('securities settled in the trade'):

- (a) they are freely transferable without any legal constraint or third party claims that impair liquidation;
- (b) they are denominated in one of the following currencies:
 - (i) a currency the risk of which the CSD-banking service provider is able to manage;
 - (ii) a currency in which the CSD-banking service provider settles transactions in the securities settlement system, within the limit of the collateral required to cover the CSD-banking service provider's exposures in that currency;
- (c) the CSD-banking service provider has both of the following:

- (i) a prearranged funding arrangement as referred to in point (e) of Article 59(4) of Regulation (EU) No 909/2014 and Article 36, that provides for the liquidation of these instruments within 5 days;
- (ii) sufficient qualifying liquid resources as referred to in Article 34 that allow covering the time gap for liquidating such collateral in case of default of the participant.

Article 21

Collateral Valuation

1. For the purposes of monitoring its collateral, as referred to in point (d) of Article 18(1), a CSD-banking service provider shall comply with the requirements of paragraphs 2 to 5.
2. For the purposes of paragraph 1, a CSD-banking service provider shall establish valuation policies and procedures that ensure all of the following:
 - (a) that the financial instruments referred to in Article 19 are valued mark-to-market on a real-time basis or on a near to real-time basis;
 - (b) that the financial instruments referred to in Article 20(1) are valued on a real-time basis, or on a near to real-time basis and, where that is not possible, that they are valued on a mark-to-model basis;
 - (c) that the financial instruments referred to in Article 20(2) are valued on a real-time basis or on a near to real-time basis, and where that 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. For the purposes of paragraph 1, 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) such review shall be carried out where a material change affects the valuation policies and procedures.

Article 22

Haircuts

1. For the purposes of point (f) of Article 18(1), the CSD-banking service provider shall specify the methodologies for calculating the haircuts applied to the collateral value. In particular the CSD-banking service provider shall comply with the requirements of paragraphs 2 to 6.

2. For the purposes of paragraph 1, a CSD-banking service provider shall set the level of the haircuts as follows:

- (a) at least at the level required by the financial institution or the central bank with which the CSD-banking service provider has a pre-arranged funding arrangement as referred to in point (e) of Article 59(4) of Regulation (EU) No 909/2014 and Article 37;
- (b) where the CSD-banking service provider has multiple pre-arranged funding arrangements, at least at the level of the highest haircuts required by a financial institution among those with which the CSD-banking service provider has prearranged funding arrangements;
- (c) by way of deviation from point (b), where collateral can be liquidated by the CSD-banking service provider with the central bank to which the CSD-banking service provider has access to routine credit, the haircuts applied by the central bank may be considered as the minimum haircut floor, provided that the central bank has no restrictions on the amount that can be provided as part of the routine credit.

3. For the purposes of paragraph 1, the methodology for calculating the haircuts shall acknowledge the possibility that the collateral may need to be liquidated under stressed market conditions and shall take into account the time required to liquidate it.

4. For the purposes of paragraph 1, the methodology for the calculation of the haircuts shall require the application of a haircut that is proportionate to 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 under stressed market conditions;
 - (f) the liquidity of the underlying market, including bid/ask spreads;
 - (g) the foreign exchange risk, if any;
 - (h) the wrong-way risk due to the correlation between the participant's creditworthiness and the collateral posted;
 - (i) the characterisation of a collateral as other collateral as referred to in Article 20.
5. The assessment referred to in point (b) of paragraph 3 shall be confirmed by an internal assessment of the CSD-banking service provider, based on a defined and objective methodology that does not rely fully on external opinions.
6. No collateral value shall be assigned to securities provided by an entity that belongs to the same group as the borrower.
7. For the purposes of paragraph 1, the CSD-banking service provider shall ensure that the haircuts avoid any pro-cyclicality.
8. For the purposes of paragraph 1, the policies and procedures on haircuts shall be independently validated at least annually and applicable haircuts shall be benchmarked with the central bank issuing the relevant currency, and other sources, where available.
9. For the purposes of paragraph 1, the haircuts applied shall be reviewed at least on a daily basis.

Article 23

Collateral concentration limits

1. For the purposes of point (f) of Article 18(1), a CSD-banking service provider shall have in place policies and procedures on collateral concentration limits. In particular, a CSD-banking service provider shall comply with the requirements of paragraphs 2 to 9.
2. For the purposes of paragraph 1, a CSD-banking service provider shall ensure that the policies referred to in paragraph 1 include:
 - (a) policies and procedures that it shall follow 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).
- 3. For the purposes of paragraph 1, the concentration limits within the collateral portfolio shall be set at least for all of the following:
 - (a) individual issuers considering the 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.
- 4. For the purposes of paragraph 1, the concentration limits shall be determined in a conservative manner taking into account all relevant criteria, including:
 - (a) financial instruments issued by issuers of the same type in terms of economic sector, activity, geographic region;
 - (b) the level of credit risk of the financial instrument or of the issuer based upon an internal assessment by the CSD-banking service provider, employing a defined and objective methodology that does not rely fully on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;
 - (c) the liquidity and the price volatility of the financial instruments.
- 5. For the purposes of paragraph 1, 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 referred to in Directive 2013/36/EU and Regulation (EU) No 575/2013;
 - (c) an entity that is part of the same group as the institution referred to in either (a) or (b).
- 6. For the purposes of paragraph 1, and where calculating the limits provided for in paragraph 3, a CSD-banking service provider shall include its total exposure to an issuer, that comprises 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.
- 7. For the purposes of paragraph 1, and where determining the 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, and to financial instruments issued by undertakings whose exclusive purpose is to own means of productions that are essential for the issuer's business.
- 8. For the purposes of paragraph 1, a CSD-banking service provider shall, at all times, monitor the adequacy of its concentration limit policies and procedures and, at least annually and whenever a material change occurs that affects its risk exposure, review its concentration limit.
- 9. CSD-banking service provider shall inform the borrowing participants of the applicable concentration limits and of any amendment to these limits pursuant to paragraph 8.

Article 24

Other equivalent financial resources

- 1. For the purposes of Article 18(2), other equivalent financial resources shall be considered to be the financial resources or the credit protection referred to in paragraphs 2 and 3.
- 2. For the purposes of paragraph 1, commercial bank guarantees provided by a financial institution referred to in Article 39(2) or a syndicate of such financial institutions, may be considered as other equivalent financial resources subject to the following conditions:
 - (a) it is issued to guarantee a settlement value of a participant that is below 1% of the settlement values of the securities settlement system over one year period;

- (b) it has 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 rely fully on external opinions and that takes into consideration the risk arising from the establishment of the issuer in a particular country;
- (c) it is denominated in one of the following currencies:
 - (i) a currency the risk of which the CSD-banking service provider is able to adequately manage;
 - (ii) a currency in which the CSD-banking service provider settles transactions in the securities settlement system, within the limit of the collateral required to cover its exposures in that currency;
- (d) it is irrevocable, unconditional and the issuer cannot rely on any legal or contractual exemption or defence to oppose the payment of the guarantee;
- (e) it can be honoured, on demand, within the period of liquidation of the portfolio of the defaulting borrowing participant providing it free of any regulatory, legal or operational constraint;
- (f) it is not issued by:
 - (i) an entity that is part of the same group as the borrowing participant covered by the guarantee;
 - (ii) 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;
- (g) it is not subject to significant wrong-way risk;
- (h) it is fully backed by collateral that meets the following conditions:
 - (i) it is not subject to wrong way risk 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 it 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;

- (i) it is honoured within the period of liquidation of one day.
3. For the purposes of paragraph 1, bank guarantees issued by a central bank may be considered as other equivalent financial resources subject to the following conditions:
- (a) they are issued by an EEA central bank or a central bank issuing a currency in which the CSD-banking service provider has exposures;
 - (b) it is denominated in one of the following currencies:
 - (i) a currency the risk of which the CSD-banking service provider is able to adequately manage;
 - (ii) a currency in which the CSD-banking service provider settles transactions in the securities settlement system, within the limit of the collateral required to cover its exposures in that currency;
 - (c) it is 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) it is honoured within the period of liquidation of one day.

Explanatory text for consultation purposes

Question 6: What are the practical impediments of the implementation of this Article (Art. 24)?

Sub-section 5

Potential residual credit exposures

Article 25

Potential residual credit exposures

1. The policies and procedures referred to in Article 11(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.

Such policies and procedures shall:

- (a) specify how potentially uncovered credit losses are allocated, including the repayment of any funds that a CSD-banking service provider may borrow from liquidity providers;
 - (b) include an ongoing assessment of evolving market conditions that allow identifying issues 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 identified issues related to the post-liquidation value of the collateral or of other equivalent financial resources
 - (ii) the timing of such measures;
 - (iii) the update of the credit risk management framework as a result of the issues related to the post-liquidation value of collateral.
2. 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 relevant competent authority in accordance with Article 60(1) of Regulation (EU) No 909/2014 shall also be promptly informed of such risks.
 3. The market 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 6

Reimbursement procedures and sanctioning rates

Article 26

Reimbursement procedures of intraday credit

1. For the purposes of point (f) of Article 11(1), a CSD-banking service provider shall have effective reimbursement procedures of intraday credit, and in particular, comply with the requirements in paragraphs 2 and 3.
2. The procedures of a CSD-banking service provider referred to in paragraph 1, shall include rules for sanctioning rates acting as an effective deterrent to discourage overnight credit exposures, 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.
3. For the purposes of paragraph 1, a CSD-banking service provider shall ensure both of the following:
 - (a) that the amount of overnight credit exposures is integrated in the usage of the credit limit granted to the participant;
 - (b) that the amount of overnight credit is added to intraday exposures to the borrowing participant on the next day and is capped by the credit limit.

Sub-section 7

Other specific credit risks

Article 27

Cash lending to pre-finance corporate actions

For the purposes of point (g) of Article 11(1), where a CSD-banking service provider lends cash to pre-finance corporate actions, it shall ensure in particular that:

- (a) the corresponding credit exposures are fully collateralised in accordance with Subsection 4;
- (b) collateral is subject to appropriate haircuts in accordance with Article 22;
- (c) irrevocable intraday guarantees from paying agents or issuer agents are established before lending the cash.

Sub-section 8

Reporting of credit risk

Article 28

Reporting to authorities on intraday risk management

1. For the purposes of Article 11(1)(h), a CSD-banking service provider shall report to the competent authority referred to in Article 60(1) of Regulation (EU) No 909/2014.
2. For the purposes of paragraph 1, a CSD-banking service provider shall comply with all of the following reporting requirements:
 - (a) it shall submit a qualitative statement that details how credit risks, including intraday are measured, monitored and managed, with at least an annual frequency;
 - (b) it shall notify the competent authority referred to in Article 60(1) of Regulation (EU) No 909/2014 of any material changes to how credit risks, including intraday, are measured, monitored, and managed, immediately after the material changes take place;
 - (c) it shall submit the metrics referred to in Article 12 on a monthly basis.
3. For the purposes of paragraph 1, where the CSD-banking service provider does not meet, or expects not to meet the requirements of this Regulation, including during times of stress, it shall immediately notify the competent authority referred to in Article 60(1) of Regulation (EU) No 909/2014 and it shall submit without undue delay that competent authority a plan for the timely return to compliance.
4. For the purposes of paragraph 3, and until compliance 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 competent authority referred to in Article 60(1) of Regulation (EU) 909/2014 authorise a lower reporting frequency

and a longer reporting delay, based on the individual situation of the CSD-banking service provider and the scale and complexity of its activities.

Sub-section 9

Public disclosure

Article 29

Public Disclosure

For the purposes of Article 11(1)(i), the CSD-banking service provider shall publicly disclose annually a comprehensive qualitative statement that details how credit risks, including intraday are measured, monitored and managed.

CHAPTER II

Liquidity risk

Article 30

General

For the purposes of point (a) of Article 10(2), a CSD-banking service provider shall design and implement policies and procedures that:

- (a) measure intraday and overnight liquidity risk, in accordance with Section 1;
- (b) monitor intraday and overnight liquidity risk, in accordance with Section 2;
- (c) manage intraday and overnight liquidity risk, in accordance with Section 3;
- (d) report intraday and overnight liquidity risk, in accordance with Section 4;
- (e) disclose the framework and tools for the monitoring, measuring, management, and the reporting on liquidity risk, in accordance with Section 5.

Section 1

Measurement of intraday liquidity risks

Article 31

Measurement of intraday liquidity risks

1. For the purposes of Article 30(a), and for each currency offered by any securities settlement system for which it acts as settlement agent, the CSD-banking service provider shall carry out all of the following:
 - (a) measure expected daily gross liquidity inflows and outflows;
 - (b) anticipate the intraday timing of these flows;

- (c) forecast the range of potential net funding shortfalls that may arise at different periods during the day.
2. For the purposes of achieving the objectives of paragraph 1, the CSD-banking service provider shall, in particular, put in place effective operational and analytical tools to identify and measure on an ongoing basis at least the following metrics on a currency by currency basis:
- (a) daily maximum intraday liquidity usage, calculated using the largest positive net cumulative position and the largest negative net cumulative position;
 - (b) total available intraday qualifying liquid resources at the start of the business day, broken down into all of the following:
 - (i) cash deposited at a central bank;
 - (ii) cash deposited at other creditworthy financial institutions;
 - (iii) highly liquid collateral with minimal credit and market risk referred to in point (d) of Article 59(3) of Regulation (EU) No 909/2014 further specified in Article 19, or investments compliant with [ESMA delegated act on Investment policy according to Article 46 of the CSDR], that are readily available and convertible into cash on a same day basis using prearranged and highly reliable funding arrangements, with financial institutions or central banks where a CSD-banking service provider has access to routine credit including under stressed market conditions, taking into account appropriate stressed valuations and appropriate haircuts as referred to in Article 22;
 - (iv) highly liquid collateral but with credit or market risk that are too high to qualify as highly liquid collateral with minimal credit and market risk in accordance with Article 19 but eligible at a central bank of the Union, where the CSD-banking service provider has access to routine credit at that central bank as referred to in Article 20(1) and 36;
 - (v) committed lines of credit, letters of credit, or similar arrangements, including those extended intraday to the CSD-banking service provider;
 - (c) total value of all of the following:
 - (i) obligations settled each day, including those for which there is a time specific intraday deadline;

- (ii) obligations required to settle positions in other payment and securities settlement systems;
 - (iii) obligations related to market activities, such as the delivery or return of money market transactions or margin payments;
 - (iv) other payments critical to reputation of the CSD-banking service provider;
- (d) total value of intraday credit lines extended to participants, broken down into all of the following:
- (i) those used at peak usage;
 - (ii) those secured by the highly liquid collateral with minimal credit and market risk referred to in Article 19;
 - (iii) those secured by the high liquid assets referred to in Article 20(1);
 - (iv) those secured by other collateral referred to in Article 20(2);
 - (v) those secured by other equivalent financial resources, as referred to in Article 24.
3. For the purposes of point (a) of Article 30, and for each currency offered by any securities settlement system for which it acts as settlement agent, a CSD-banking service provider shall monitor the liquidity needs stemming from each entity towards which the CSD-banking service provider has a liquidity exposure, and in particular, all of the following:
- (a) settlement banks;
 - (b) payments systems;
 - (c) securities settlement systems;
 - (d) *nostro* agents;
 - (e) custodian banks;
 - (f) liquidity providers;
 - (g) CSDs with interoperable links.

Article 32

Measurement of overnight liquidity risks

For the purposes of point (a) of Article 30, in relation to overnight liquidity risks, the CSD-banking service provider shall compare on an ongoing basis its liquidity needs against its qualified liquid resources, as these result by the use of overnight credit for each currency offered by the securities settlement system for which it acts as settlement agent.

Section 2

Monitoring Liquidity Risks

Article 33

Monitoring intraday liquidity risks

1. For the purposes of point (b) of Article 30, in relation to intraday liquidity risks, the CSD-banking service provider shall comply with the requirements of paragraphs 2 to 4.
2. For the purposes of paragraph 1, the CSD-banking service provider shall establish and maintain a report on the intraday liquidity risk that it assumes which shall be reviewed monthly by the risk committee of the CSD-banking service provider and, where relevant, in cooperation with the risk committee of the CSD, which shall include, at least:
 - (a) the metrics referred to in Article 31;
 - (b) the intraday objectives referred to in Article 35;
 - (c) the agreed risk appetite of the CSD-banking service provider;
 - (d) a contingency funding plan that details the remediation process to be actioned where the agreed risk appetite is breached.
3. For the purposes of paragraph 1, the CSD-banking service provider shall have effective operational and analytical tools to monitor its intraday liquidity positions against expected activities and available resources based on balances, remaining intraday credit capacity, and available collateral on a near to real-time basis for each currency offered by the securities settlement system for which it acts as settlement agent.

4. For the purposes of paragraph 1, and in terms of documentation, the CSD-banking service provider shall:
 - (a) maintain for a period of at least ten years a record of the intraday liquidity exposures for each settlement currency offered by any securities settlement system for which it acts as settlement agent;
 - (b) shall monitor its intraday liquidity exposures on an ongoing basis against the maximum intraday liquidity exposure on record.

Article 34

Monitoring overnight liquidity risks

For the purposes of Article 30b), in relation to overnight liquidity risks, the CSD-banking service provider shall:

- (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 offered by any 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 on record.

Section 3

Managing Liquidity Risks

Explanatory text for consultation purposes

Article 59(5) of Regulation (EU) No 909/2014 mandates alignment with the regulatory technical standards adopted in accordance with Article 46(3) of Regulation (EU) no 648/2012.

Article 35

Managing intraday liquidity risk

1. For the purposes of Article 30(c), a CSD-banking service provider shall comply with the requirements referred to in paragraphs 2 to 12.
2. For the purposes of paragraph 1 and for each currency offered by any securities settlement system 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;
 - (b) manage and mobilise collateral necessary to obtain intraday funds, taking into account haircuts in accordance with Article 22 and concentration limits in accordance with Article 23;
 - (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, including the temporary failure or inability of its largest liquidity provider unless largest liquidity provider for the currency offered is a central bank of issue.
3. For the purposes of paragraph 1, the liquidity risk framework of the CSD-banking service provider shall take account of cross-border and cross-currency exposures where relevant.
4. For the purposes of paragraph 1, and for the purpose of meeting its minimum liquid resource requirement, a CSD-banking service provider shall identify 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.
5. For the purposes of paragraph 1, and for risks specified in paragraph 2(d), the CSD-banking service provider shall specify extreme but plausible conditions, including those identified in Article 37(4) 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 can argue that recurrence of a historical instance of large price movements is not plausible;

- (b) a range of potential future scenarios, founded on consistent assumptions regarding market volatility and price correlation across markets and financial instruments, drawing 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.
6. The scenarios referred to in paragraph 3, shall also take into account:
- (a) the design and operation of the CSD-banking service provider, including all entities listed in Article 31(3) 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 its parent undertaking and subsidiaries, and an assessment of the probability of multiple defaults and the effects among its participants that such defaults may cause;
 - (c) their impact on the CSD-banking service provider's cash-flows and on its counterbalancing capacity and survival horizon, and whether the modelling reflects the different impacts that an economic stress may have both on the CSD-banking service provider's assets and its inflows and outflows.
7. For the purposes of paragraph 1, the CSD-banking service provider shall review the procedures referred to in paragraphs 2 to 4 at least annually, taking into account all relevant market developments as well as the scale and concentration of exposures.
8. For the purposes of paragraph 1, 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 and more frequently where market developments or the operations of the CSD-banking service provider affect the assumptions underlying the scenarios that require an adjustment to such scenarios.
9. For the purposes of paragraph 1, any changes to the overall liquidity risk framework shall be reported to the management body.
10. For the purposes of paragraph 1, the liquidity risk framework shall consider, quantitatively and qualitatively, the extent to which extreme price movements could occur simultaneously in multiple identified markets. The framework shall recognise that historical price correlations may breakdown 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.

11. For the purposes of paragraph 1, the CSD-banking service provider shall consider how the intraday monitoring metrics referred to in Article 31(2) shall be used to calculate the appropriate value of intraday funding required, and 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 default of at least two participants, including their parent undertaking and subsidiaries, to which it has the largest intraday liquidity exposure;
 - (b) the timely monitoring of liquid assets, including the quality of the assets, their concentration and their immediate availability;
 - (c) appropriate policy on monitoring market conditions that can affect the liquidity of the intraday buffer;
 - (d) the value of the intraday buffer, valued and calibrated under stressed market conditions, including the scenarios referred to in Article 37(4).
12. For the purposes of paragraph 1, the CSD-banking service provider shall ensure that its liquid assets are under the control of a specific liquidity management function.
13. For the purposes of paragraph 1, the liquidity risk framework of the CSD-banking service provider shall include appropriate governance arrangements relating to the amount and form of total liquid resources the CSD-banking service provider maintains, as well as relevant adequate documentation and, in particular one of the following:
 - (a) placement of the liquid assets in a separate account under the direct management of the liquidity function with the sole intent of using them as a source of contingent funds, including during stress periods;
 - (b) establishment of internal systems and controls to give the liquidity management function effective operational control to monetise the holdings of liquid assets at any point in the stress period and to access the contingent funds without directly conflicting with any existing business or risk management strategies, such that no assets are included in the liquidity buffer where their sale without replacement throughout the stress period would remove a hedge and would create an open risk position in excess of the internal limits of the CSD-banking service provider;
 - (c) a combination of points (a) and (b), where such a combination ensures a comparable result.

Explanatory text for consultation purposes

This regulation harmonises the eligible assets used for an intraday liquidity risk buffer, the calculation of the buffer, and its independent management from other buffers.

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 this Regulation beyond the minimum LCR standard?

Article 36

Qualifying liquid resources

For the purposes of point (c) of Article 30, a CSD-banking service provider shall control, manage, and mitigate corresponding liquidity risks, including intraday liquidity risks, in each currency using the following qualifying liquid resources:

- (a) cash deposited at a central bank of issue;
- (b) cash deposited at creditworthy financial institutions;
- (c) committed lines of credit, letters of credit, or similar agreements;
- (d) highly liquid collateral with minimum credit and market risk referred to in Article 19 or investments compliant with [ESMA delegated act on Investment policy according to Article 46 of CSDR] that are readily available and convertible into cash with prearranged and highly reliable funding arrangements as referred to in Article 39;
- (e) the collateral referred to in Article 20(1) that is eligible for pledging to a central bank, where the CSD-banking service provider has access to routine credit at that central bank.

Article 37

Stress testing liquid financial resources

1. For the purposes of Article 30(c), a CSD-banking service provider shall determine and test the sufficiency of its liquidity resources at a currency level by regular and rigorous stress testing that meets all of the following requirements:
 - (a) is conducted on the basis of the scenarios referred to in Article 35(3) and (4), as well as the specific scenarios identified in paragraph 6;
 - (b) includes intraday scenarios regular testing of the CSD-banking service provider's procedures for accessing its liquid resources from a liquidity provider;
 - (c) complies, in particular, with the requirements of paragraphs 2 to 6.
2. For the purposes of paragraph 1, the CSD-banking service provider shall obtain a high degree of confidence, 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 36 has sufficient information to understand and to manage its associated liquidity risk, and that it has the capacity to perform as required under a prearranged funding arrangement as referred to in point (d) of Article 59(4) of Regulation (EU) No 909/2014.
3. For the purposes of paragraph 1, the CSD-banking service provider shall have rules and procedures to address the insufficiency of qualifying liquid financial resources highlighted by its stress tests.
4. For the purposes of paragraph 1, where the stress tests result in breaches to the agreed risk appetite referred to in point (c) of Article 33(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) where breaches cannot be restored by the end of the day, the CSD-banking service provider shall review and adjust its contingency plan referred to in point (d) of Article 33(2) accordingly;
 - (c) have rules and procedures for using the results and analysis of its stress tests to evaluate and adjust the adequacy of its liquidity risk management framework and liquidity providers.
5. For the purposes of paragraph 1, the stress testing scenarios used in the stress testing of liquid financial resources shall consider the design and operation of

the CSD-banking service provider, and include all entities that may pose material liquidity risk to it.

6. For the purposes of paragraph 1, the stress testing scenarios used in the stress testing of liquid financial resources shall consider a wide range of relevant extreme but plausible scenarios, covering short-term and prolonged, and institution specific and market-wide stress, including:
 - (a) 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;
 - (b) the missed receipt of payments from participants on a timely basis;
 - (c) the temporary failure or inability of one of the CSD-banking service's liquidity providers, custodian banks, *nostro* agents, or any related infrastructure, including interoperable CSDs;
 - (d) simultaneous pressures in funding and asset markets;
 - (e) the reduction of secured and unsecured wholesale funding, broken down by the factors set out in Article 23(3) on concentration limits;
 - (f) the correlation between funding markets;
 - (g) the diversification across different funding tenors, in particular where the funding provider has call options;
 - (h) foreign exchange convertibility and access to foreign exchange markets;
 - (i) market-wide credit or liquidity stresses which result in the reduction in the value of liquid assets;
 - (j) shifts in other market factors, such as price determinants and yield curves, multiple defaults over various time horizons;
 - (k) adverse changes in the reputation of a CSD-banking services provider and the impact of any external opinion on such reputation;
 - (l) relevant peak historic price volatilities as recurrent events;
 - (m) changes in the settlement volume;
 - (n) IT failures, legal constraints or human errors.

Article 38

Unforeseen and potentially uncovered liquidity shortfalls

1. For the purposes of Article 30(c), the CSD-banking service provider shall establish explicit rules and procedures to effect same-day, and where appropriate, intraday and multiday timely settlement of payment obligations following any individual or combined default among its participants and shall address unforeseen and potentially uncovered liquidity shortfalls with the view to avoiding unwinding, revoking, or delaying the same-day settlement of payment obligations by meeting, in particular, the requirements of paragraphs 2 to 6.
2. The rules and procedures referred to in paragraph 1 shall require that the CSD-banking service provider has access to cash deposits or overnight investments of cash deposits, and 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 issues that may develop into otherwise 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 requirement 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 have to 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 in accordance with Article 60(1) of Regulation (EU) No 909/2014, in the manner provided in Article 40.

Article 39

Arrangements for the timely liquidation of collateral or investment using prearranged funding

1. For the purposes of Article 30(c), and in relation to arrangements relating to the timely liquidation of collateral or investment using prearranged funding for liquidity risk, a CSD-banking service provider shall comply with the requirements of paragraphs 2 to 13.
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 rely fully on external opinions;
 - (b) a third country financial institution that meets all of the following requirements:
 - (i) 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) has robust accounting practices, safekeeping procedures, and internal controls;
 - (iii) 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 rely fully on external opinions;
 - (iv) takes into consideration the risk arising from the establishment of that third country financial institution in a particular country.

3. Where a CSD-banking service provider wishes to establish a prearranged funding arrangement with a creditworthy financial institution as referred to in paragraph 2, it shall consider as candidate financial institutions only those that have at least access to credit from the central bank issuing the currency of the prearranged funding arrangements, either directly or through entities of the same group.
4. Once a prearranged 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) by subjecting those institutions to regular, independent assessments of their creditworthiness;
 - (b) by assigning and regularly reviewing internal credit ratings for each financial institution with which the CSD has established a prearranged 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 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, which shall in particular provide that:
 - (a) the concentration limits are established by currency;
 - (b) at least two arrangements for each major currency are put in place unless the CSD-banking service provider has direct access to the central bank of issue of the currency concerned;
 - (c) the CSD-banking service provider is not overly reliant on any individual financial institution considering all currencies;
7. The CSD-banking service provider shall continuously monitor and control its concentration limits towards its liquidity providers 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;
8. The CSD-banking service provider shall review its policies and procedures concerning applicable concentration limits towards its liquidity providers at least annually and whenever a material change occurs and affects its risk exposure to any individual financial institution.

9. In the context of its reporting to the relevant competent authority in accordance with Article 38, the CSD-banking service provider shall inform the competent authority of:
 - (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.
10. 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 5.
11. 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.
12. Where the assets used as collateral are in the securities accounts maintained by another entity than the CSD-banking service provider, the CSD-banking service provider shall ensure that all of the following conditions are met:
 - (a) it has real-time visibility of the assets used as collateral;
 - (b) the third party entity meets sufficient prudential standards, including segregation of the CSD-banking service provider's assets used as collateral from other assets;
 - (c) the arrangements with that third party entity prevent any losses of assets to the CSD-banking service provider.
13. The CSD-banking service provider shall take all reasonable steps in advance to establish the enforceability of its claim to financial instruments provided as collateral.
14. The CSD-banking service provider shall be capable of accessing and liquidating non-cash assets referred to in Articles 19 and 20(1) on a same-day basis through pre-arranged and highly reliable arrangements established in accordance with point (i) of Article 59(4).

Section 4

Reporting of Liquidity Risks

Article 40

Reporting to authorities on intraday risk management

1. For the purposes of Article 30(d), a CSD-banking service provider shall report to the relevant competent authority in accordance with Article 60(1) of Regulation (EU) No 909/2014.
2. For the purposes of paragraph 1, a CSD-banking service provider shall comply with all of the following reporting requirements:
 - (a) it shall submit a qualitative statement that details how liquidity risks, including intraday are measured, monitored and managed, with at least an annual frequency;
 - (b) it shall notify the relevant competent authority of any material changes to how liquidity risks, including intraday, are measured, monitored, and managed, immediately after the material changes take place;
 - (c) it shall submit the metrics referred to in Article 31(2) on a monthly basis.
3. For the purposes of paragraph 1, where the CSD-banking service provider does not meet, or expects not to meet the requirements of this Regulation, including during times of stress, it shall immediately notify the relevant competent authority and it shall submit without undue delay to the relevant competent authority a plan for the timely return to compliance.
4. For the purposes of paragraph 3, and until compliance 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, based on the individual situation of the CSD-banking service provider and the scale and complexity of its activities.

Section 5

Public disclosure

Article 41

Public Disclosure

For the purposes of Article 30(e), the CSD-banking service provider shall publicly disclose annually a comprehensive qualitative statement that details how liquidity risks, including intraday are measured, monitored and managed.

Section 6

Final provision

Article 42

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 I

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 8(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.

Annex II

Business risk scenarios

The scenarios referred to in Article 35(2) for the calculation of the regulatory capital for business risks shall be:

- (a) the CSD's external rating downgrade of three notches by all the rating agencies that provide solicited ratings of the CSDs;
- (b) an unexpected increase of funding costs of 10%;
- (c) an unexpected reduction of income of 30%;
- (d) 10% higher than planned cash contributions for pension plans;
- (e) an unexpected reduction of long clients' balances of 10%;
- (f) an unexpected reduction in short clients' balances of 10%.

5. Accompanying documents

5.1 Draft Cost- Benefit Analysis / Impact Assessment

1 Article 47 – Capital requirements

1. In order to provide input to the development of the CSD-R, the ECSDA ran a survey among their members on the existing minimum capital requirements.¹⁷ 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 are not harmonised across the Member States.
2. For example, the notion of regulatory capital is not always defined the same way across jurisdictions. Also, in many cases, the minimum capital requirements are expressed as an absolute amount with a range going 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 a combination of both approaches. Another reason for differences is that some CSDs hold a banking license and are, hence, subject to the CRD IV/CRR requirements, whereas others do not. It should be noted that the surveyed CSDs do not currently subject their capital requirements to stress tests.
3. The reason for such differences is that in some case 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 are agreed bilaterally between the CSD and supervisory authorities and only in the residual cases the minimum capital requirements derive from the banking license.
4. The EBA faced similar technical decisions when it developed the RTS on capital requirements for CCPs,¹⁸ although the risks of a CSD, especially the operational risks, can be very different in nature. Having that 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 winding down of the CSD's activities (six months). The same article requires a CSD 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 requires assessing the actual time span needed to manage the orderly restructuring and the winding down and the range of stress scenarios. The RTS requires a CSD to hold capital necessary to ensure an

¹⁷ The two I-CSDs (Euroclear Bank and Clearstream Banking Luxembourg) have not been included in the ECSDA survey due to their special characteristics.

¹⁸ [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.

orderly restructuring or winding down of its activities in the time span assessed or in any event no lower than 6 months. [The proportionality principle is applied introducing the possibility to rely on a standardised approach.]

1.1 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.¹⁹ 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 this RTS with the definition of “capital” under EMIR would result in a CSD subject to the CRR (i.e. a CSD holding a banking license) 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 the recognition as either Tier 1 capital²⁰ or Tier 2 capital²¹) 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 license may use “own funds instruments” (within the meaning of the CRR), provided however that the CSD shall ensure that the risks in questions are covered by own funds instruments providing a high absorbing capacity.
8. Given that the capital surcharge applies exclusively to entities that are authorised as credit institutions under CRD-R (CSDs that are required to hold a banking licence or designated credit institutions, ‘capital’ for the purpose of the capital surcharge means “own funds” within the meaning of the CRR.

1.2 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 to ensure an orderly winding-down or restructuring of the CSD’s activities over an appropriate time span

¹⁹ Art. 25(2) 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;”

²⁰ Art. 28 et seq. and art. 51 et seq. of the CRR.

²¹ Art. 61 et seq. of the CRR.

of at least six 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 in 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. The EBA investigated the possibility to specify in the technical standards the definition of “winding-down or restructuring” of a CSD’s activities. One option considered was the following: 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 the firm cease to have a CSD license (i.e., it does not offer at least two of the services listed in the Annex, Section A of the CSD-R any more). On the other hand, the process of reorganizing 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 Annex, Section A of the CSD-R) could define the “restructuring” process.
12. Article 47(2) requires the 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 CSDs in a distress situation, to ensure the orderly winding-down or restructuring of the operations and services.
13. As prescribed in the CSD-R, such plan has to take into consideration a ‘wide range of stress scenarios’ which include a time span of *at least* six months to implement a restructuring or winding-down. The reference used to define the winding-down or restructuring scenarios are the EBA guidelines on the range of scenarios to be used in recovery plans²² and the references included therein^{23,24} to the related FSB framework.
14. Some scenarios were not designed to define regulatory capital. Therefore, only a certain number of scenarios among those recommended in those Guidelines and publications were deemed appropriate for the purposes of these technical standards.

1.3 Floor to the regulatory capital for operational risk

15. 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

²² [Guidelines on the range of scenarios to be used in recovery plans](#), issued by the EBA on 18 July 2014.

²³ [Key Attributes of Effective Resolution Regimes for Financial Institutions](#), issued by the FSB on October 2011.

²⁴ [Recovery and Resolution Planning for Systemically Important Financial Institutions: Guidance on Recovery Triggers and Stress Scenarios](#), issued by the FSB on 16 July 2013.

based on a methodology that already consider 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 Approach²⁵ (BIA), the Standardised Approach or the Advanced Measurement Approach²⁶ (AMA) for more complex institutions.

16. Some CSDs with a banking license are authorised to use the AMA approach when calculating the current regulatory capital for operational risk. By comparison, all the CSDs without a banking license are not subject to an explicit requirement for operational risk.
17. In principle, the BIA might not be well suited for all the cases because this method has been calibrated for banks.²⁷

1.4 Capital requirements for counterparty credit risk

18. It is extremely unlikely that any CSD (including the ICSDs) has activities in the derivative market of such size and complexity to justify the development and the 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 the cases. The EBA might consider reviewing the RTS following the introduction of the SA-CCR²⁸ in the European banking regulation.

1.5 Capital requirements for counterparty business risk

19. Like for 'custody risk', there is no candidate methodology for business risk. By analogy with the the capital requirements for CCPs, business risk could be captured by an add-on equals to three months of operational expenses.
20. 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. The minimum set of scenarios prescribed in the RTS should cover all the major business risks not covered under the operational risk module.
21. The scenarios have to be tailored differently for each CSD. Since this approach can 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

²⁵ Regulation (EU) No 575/2013 (CRR), Title III, Own Funds Requirements for Operational Risk, Articles 315 to 320.

²⁶ Regulation (EU) No 575/2013 (CRR), Title III, Own Funds Requirements for Operational Risk, Articles 321 to 324.

²⁷ 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 criticized and respondents suggested a review of the standard weights. However, the suggestion was not taken onboard as the EBA decided to use the BIA or the AMA for CCPs

²⁸ Add ref. to Basel SA-CCR.

immaterial, this minimum is set to the level of the standard approach, i.e. six months of operational expenses.

1.6 Capital requirements for custody risk

22. The CSD-R devotes special consideration to custody risk for which there is no obvious candidate methodology that applies to the CSDs. One option is to recognise that operational risk methodology, and therefore the capital requirements, already include “custody risk”. This would be true under all the approaches.
23. 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.
24. EBA will take a final decision after the survey results.

1.7 Stress scenarios

25. Article 47, paragraph 2, requires all the 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/winding-down scenario and (ii) in case it is not possible to recapitalise the CSDs 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 six months to implement a restructuring or winding-down. The question is therefore whether the technical standards should identify the criteria, define scenarios or this should be left to the individual CSD.
26. By the pure prudential point of view, the fact that the winding-down and restructuring period has a minimum equals to the standard one (six months) might open the possibility to be less prescriptive on the scenarios to be used.

1.8 Capital requirements – Quantitative analysis and survey

27. EBA will gather quantitative evidence to inform the impact assessment during the consultation period. CSDs domiciled in the EU will be invited to provide this 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 aggregated figures will be published with the report on the final draft RTS.

2 Article 54(5) - Capital surcharge

28. The capital surcharge related to the 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 of ancillary services and should capture in particular intraday credit risks that are not covered by the CRD/R framework. The methodology proposed in the CP is based on the highest aggregated intraday exposure over the most

recent calendar year and the assumption that the corresponding collateral loses 10% of its market value. The risk-weighted residual exposure amounts shall be calculated in accordance with credit risk methodologies set out in the CRR assuming that those exposures are end-of-the-day exposures.

29. 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 the intraday 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 same framework of the CRR, under different assumptions. Therefore, it should be easily implementable by a CSD with a banking license 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) Avoids double counting because risk already covered are not counted twice.
30. There are two potential disadvantages and they both refer to the stress situation envisaged for the intraday credit risks.
- a) The risk weights in the CRR framework assume a one-year time horizon which is not the same time horizon as 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.

3 Article 59(3) - Credit risk

31. In defining these regulatory standards, the relevant Principles for Financial Market Infrastructures issued by the Committee on Payment and Market Infrastructures and the International Organisation of Securities Commissions (“CPMI-IOSCO Principles”) have been taken into account. The requirements regarding credit risk under Regulation EU No 575/2013 (CRR) have also been taken into account where relevant.

3.1 Credit limits

32. Whereas credit limits shall be defined by the creditworthiness of a participant and the actual need to facilitate settlement activity, they shall be set in 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.

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

33. The definition of highly liquid collateral with minimal credit and market risk in this Regulation 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 Art 54 are banks, and in accordance with CSDR Art 59.4 (i), 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 the credit limit setting to participants.
34. 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 definition in Regulation (EU) 648/2012 (EMIR Annex 1) .

3.3 Other types of collateral

35. The specific situations in point (d) of Article 59(3) refer to situations in which other types of collateral can be used to cover credit exposures to individual borrowing participants, insofar 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 underlying securities of the transaction can already be used to buy the securities.
36. Given that CSDs authorised as a credit institution and designated credit institutions in accordance with Art 54 2.(b) have access to routine credit with their central bank based on eligible financial instruments as collateral, eligible assets that do not meet the highly liquid collateral with minimal credit and market risk, but that can still be mobilised with the central bank are considered as highly liquid collateral. The availability of this type of other collateral shall also be taken into account in the credit limit setting to participants.
37. 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 gap to liquidate such collateral, which should be no longer than 5 days.

3.4 Collateral valuation

38. The frequency of the collateral valuation is in line with Regulation (EU) 648/2012 (EMIR Art. 40). CSDs or entities providing banking-type ancillary services under Art 54 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 non-central bank eligible, monitoring should be based on mark-to-market or mark-to-model.

3.5 Haircuts and collateral concentration

39. Different haircut floors were considered to specify appropriately conservative haircuts. The option was taken to take as minimum haircut the haircut of the pre-arranged and highly reliable funding arrangements, whichever is the highest in case of multiple pre-arranged funding arrangements for the same type of collateral. As these are numerical haircut floors, the CSDs or entities providing banking-type ancillary services under Art 54 still need to have a collateral valuation system in place to set haircuts that take into account the criteria set out in Art 12. Haircuts shall be reviewed on at least a daily basis, compared to the valuation of the collateral, as they 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.
40. Collateral concentration rules are based on Article 42 of EMIR with the addition for the determination of concentration limits at the level of the country of the issuer and collateral nominal currency.

3.6 Reimbursement procedures for intraday credit

41. For sanctioning rates to be an effective deterrent to discourage overnight exposures, they will be higher than the interbank money-market overnight collateralised market rate or marginal lending rate of a central bank of issue of the currency of the credit exposure, whichever is the highest. The CSDs or entities providing banking-type ancillary services under Art 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 Article 59(4) - Liquidity risk

42. This RTS is mandated by the CSDR level 1 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 identified (p8) that the European CSD market is *"very fragmented, and for the provision of ancillary services, CSDs and custodian banks often compete for ancillary functions"*. The Commission identified in particular a *"Lack of common prudential rules"* (p17) which could have *"tremendous consequences for a national market in 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."*
43. The issue addressed by this RTS is 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 they have 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.

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

4.1 The scope of the changes

45. This Regulation 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.

4.2 The extent and cost of the changes with the current practice -

- a. This will largely be determined by the feedback from the CP. In the absence of harmonised practices, the impact of the proposed rules is expected to vary between EU member states and stakeholders welcome to provide details in this regard.
- b. The banking services providers must be authorised as credit institutions under the CRR and as such will need to comply with the CRR/CRD IV. The costs of these RTS will therefore be the incremental costs from the CRR to the standards of the CSDR.
- c. Additional requirements from this RTS will be the establishment on 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. These will bear costs which could be quantified by the outcome of the CP based on the feedback to this CP.
- d. Harmonised prudential principles regarding the management of the intraday liquidity may reduce the probability of failure of firms offering such services due to the better management of the liquidity risk, early detection and other prudential factors.

4.3 The supervisory impact

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

4.4 The proposed regulation (the RTS)

47. The RTS assumes that the banking service provider is also subject to the requirements of the CRR, and therefore focusses on the areas where the CSD-R mandate is not met by the CRR.

5.2 Overview of questions for Consultation

Q1. What are the practical impediments of calculating capital requirements for custody risk as set out in Article 5?

Q2. Is the level of capital requirements as proposed in these draft RTS (Articles 1-8) 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.

Q3. What are the operational or practical impediments to the implementation of the proposed methodology for the calculation of the capital surcharge (Article 9)? Do you envisage any amendment to the proposed methodology that might lead to a better measurement and management of those risks?

Q4. 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 compulsory information provided by those cash correspondents (Article 14)?

Q5. What might be the practical, legal or operational impediments to the methodology set out in Sub-section on Collateral and other equivalent financial resources (Article 18)?

Q6: What are the practical impediments of the implementation of Article 24?

Q7. 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 this Regulation beyond the minimum LCR standard?