►B **COMMISSION DELEGATED REGULATION (EU) 2017/390**

of 11 November 2016

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)

(OJ L 65, 10.3.2017, p. 9)

Corrected by:

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(Text with EEA relevance)

TITLE I

CAPITAL REQUIREMENTS FOR ALL CSDS REFERRED TO IN ARTICLE 47 OF REGULATION (EU) No 909/2014

Article 1

Overview of requirements regarding the capital of a CSD

1. For the purposes of Article 47(1) of Regulation (EU) No 909/2014, a central securities depository ('CSD') shall hold at all times, together with retained earnings and reserves, the amount of capital specified in Article 3 of this Regulation.

2. The capital requirements referred to in Article 3 shall be met with capital instruments that meet the conditions set out in Article 2 of this Regulation.

Article 2

Conditions regarding capital instruments

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

(a) they are subscribed capital within the meaning of Article 22 of Council Directive 86/635/EEC [1];

(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 in insolvency actions or under the applicable insolvency law.

2. In addition to the capital instruments that meet the conditions in paragraph 1, a CSD authorised in accordance with point (a) of Article 54(2) of Regulation (EU) No 909/2014 to provide banking-type ancillary services may, in order to meet the requirements in Article 1, use capital instruments that:

(a) meet the conditions in paragraph 1;

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

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(b) are 'own funds instruments' as defined in point 119 of Article 4(1) of Regulation (EU) No 575/2013;

(c) are subject to the provisions of Regulation (EU) No 575/2013.

Article 3

Level of capital requirements for a CSD

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

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

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

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

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

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

Article 4

Level of capital requirements for operational, legal and custody risks

1. A CSD authorised in accordance with point (a) of Article 54(2) of Regulation (EU) No 909/2014 to provide banking-type ancillary services and with permission to use the Advanced Measurement Approaches ('AMA') referred to in Articles 321 to 324 of Regulation (EU) No 575/2013, shall calculate its capital requirements for operational, legal and custody risks in accordance with Articles 231 to 234 of Regulation (EU) No 575/2013.

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

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

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

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

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

Article 5

Level of capital requirements for investment risk

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

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

(i) credit risk in accordance with paragraph 2;

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

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

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

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

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

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

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

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

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

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

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

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

5. 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 permitted to use internal models to calculate own funds requirements for market risk, shall calculate its capital requirements for market risk in accordance with Articles 102 to 106 and 362 to 376 of Regulation (EU) No 575/2013.

Article 6

Capital requirements for business risk

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(iii) insurance expenses;

(iv) other employees' expenses and travelling;

(v) real estate expenses;

(vi) IT support expenses;

(vii) telecommunications expenses;

(viii) postage and data transfer expenses;

(ix) external consultancy expenses;

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

(xi) impairment and disposal of fixed assets;

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

(i) International Financial Reporting Standards (IFRS) adopted pursuant to Regulation (EC) No 1606/2002 of the European Parliament and of the Council [1];

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

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(ii) Council Directives 78/660/EEC [1], 83/349/EEC [2] and 86/635/EEC;

(iii) generally accepted accounting principles of a third country determined to be equivalent to IFRS in accordance with Commission Regulation (EC) No 1569/2007 [3] or accounting standards of a third country the use of which is permitted in accordance with Article 4 of that Regulation;

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

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

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

Article 7

Capital requirements for winding-down or restructuring

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

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

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

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

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

(ii) six months.

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

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

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

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TITLE II

CAPITAL SURCHARGE FOR CSDS AUTHORISED TO OFFER BANKING-TYPE ANCILLARY SERVICES AND FOR DESIGNATED CREDIT INSTITUTIONS, AS REFERRED TO IN ARTICLE 54 OF REGULATION (EU) No 909/2014

Article 8

Capital surcharge resulting from the provision of intraday credit

1. For the purposes of calculating the additional capital surcharge resulting from the provision of intra-day credit, as set out in point (d) of Article 54(3) of Regulation (EU) No 909/2014, and in point (e) of Article 54(4) of that Regulation, CSD-banking service provider shall apply the following steps in sequence:

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

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

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

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

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

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

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

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

5. The capital requirements of this Article shall apply 12 months after obtaining the authorisation to provide banking-type ancillary services pursuant to Article 55 of Regulation (EU) No 909/2014.

TITLE III

PRUDENTIAL REQUIREMENTS APPLICABLE TO CREDIT INSTITUTIONS OR CSDS AUTHORISED TO PROVIDE BANKING-TYPE ANCILLARY SERVICES, AS REFERRED TO IN ARTICLE 59 OF REGULATION (EU) No 909/2014

CHAPTER I

COLLATERAL AND OTHER EQUIVALENT FINANCIAL RESOURCES FOR CREDIT AND LIQUIDITY RISKS

Article 9

General rules on collateral and other equivalent financial resources

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

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

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

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

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

(iii) finally accept as collateral all the securities in the account of the borrowing participant that meet the requirements set out in Article 11(2), within the limits of available qualifying liquid resources referred to in Article 34 with the view to meeting the minimum liquid resources requirement referred to in Article 35(3);

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

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

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

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

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

Article 10

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

1. In order for collateral to be considered of the best quality for the purposes of point (d) of Article 59(3), and point (d) of Article 59(4) of Regulation (EU) No 909/2014, it shall consist of debt instruments that meet all of the following conditions:

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

(i) a government;

(ii) a central bank;

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

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

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

(1) Directive 2002/47/EC of the European Parliament and of the Council of 6 June 2002 on financial collateral arrangements (OJ L 168, 27.6.2002, p. 43).

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

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

(e) they fulfil one of the following requirements:

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

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

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

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

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

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

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

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

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

(e) they fulfil one of the following requirements:

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

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

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

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

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

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

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

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

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

Article 11

Other collateral

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

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

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

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

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

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

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

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

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

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

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

Article 12

Collateral valuation

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

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

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

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

2. The methodologies for the mark-to-model valuation referred to in points (b) and (c) of paragraph 1 shall be fully documented.

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

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

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

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Article 13

Haircuts

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

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

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

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

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

(a) the type of asset;

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

(c) the country of issuance of the asset;

(d) the maturity of the asset;

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

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

(g) the foreign exchange risk, where applicable;

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

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

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

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

7. The CSD-banking service provider shall ensure that its policies and procedures on haircuts are validated at least annually by an independent unit of the CSD-banking service provider and applicable haircuts are benchmarked with the central bank issuing the relevant currency and, where the central bank benchmark is not available, other relevant sources.

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

Article 14

Collateral concentration limits

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

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

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

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

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

(a) individual issuers considering their group structure;

(b) country of the issuer;

(c) type of issuer;

(d) type of asset;

(e) settlement currency;

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

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

(h) each borrowing participant;

(i) all borrowing participants;

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

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

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

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

(a) a single credit institution;

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

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

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

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

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

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

Article 15

Other equivalent financial resources

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

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2. Other equivalent financial resources may include commercial bank guarantees provided by a creditworthy financial institution that fulfils the requirements set out in in Article 38(1) or a syndicate of such financial institutions that meet all of the following conditions:

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

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

(c) they are irrevocable, unconditional and there is no legal or contractual exemption or option allowing the issuer to oppose the payment of the guarantee;

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

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

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

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

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

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

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

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

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

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

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

(d) they are honoured within one business day.

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

Article 16

Other equivalent financial resources for exposures in interoperable links

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

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

(b) they have been issued by a consortium of creditworthy financial institutions that fulfil the requirements set out in Article 38(1), in which each of those financial institutions is obliged to pay the part of the total amount that has been contractually agreed upon;

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

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

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

(f) they are not issued by:

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

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

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

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

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

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

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

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

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

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

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

CHAPTER II

PRUDENTIAL FRAMEWORK FOR CREDIT AND LIQUIDITY RISK

Article 17

General provisions

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

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(a) intraday credit risk and overnight credit risk;

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

(c) potential residual credit exposures;

(d) reimbursement procedures and sanctioning rates.

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

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

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

SECTION 1

Credit risk

Article 18

Credit risk management framework

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) the metrics referred to in Article 19;

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

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

5. The report referred to in paragraph 4 shall be subject to monthly review by the relevant committees established by the management body of the CSD-banking service provider. Where the CSD-banking service provider is a credit institution designated by the CSD in accordance with point (b) of Article 54(2) of Regulation (EU) No 909/2014, the report referred to in paragraph 4 shall also be made available to the risk committee established under Article 48 of the Delegated Regulation (EU) 2017/392 of the CSD with the same monthly frequency.

6. Where the CSD-banking service provider breaches one or more of the concentration limits referred to in Article 14, it shall immediately report this to its relevant committee in charge of risk control, and, where it is a credit institution referred to in paragraph 5 of this Article, it shall immediately report to the risk committee of the CSD.

Sub Section 1

Measurement of Credit Risks

Article 19

Measurement of intraday credit risk

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

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

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

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

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

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

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

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

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

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

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

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

Article 20

Measurement of overnight credit exposures

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

Sub-Section 2

Monitoring Credit Risks

Article 21

Monitoring intraday credit exposures

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

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

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(b) maintain, for a period of at least 10 years, a record of the daily intraday peak and average intraday credit exposures arising from banking-type ancillary services referred to in Section C of the Annex to Regulation (EU) No 909/2014;

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

(i) issuers;

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

(iii) CSDs with interoperable links;

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

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

(e) specify, for each counterparty, how the CSD-banking service provider monitors the concentration of its intraday credit exposures, including its exposures to the entities of the groups comprising the 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 22

Monitoring overnight credit risk

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

(a) maintain a record of the sum of the actual end of day credit exposures, for a period of at least 10 years;

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

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Sub-Section 3

Management of Intraday Credit Risks

Article 23

General requirements for the management of intraday credit risk

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

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

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

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

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

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

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

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

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

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

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Article 24

Credit limits

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

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

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

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

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

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

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

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

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

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

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

Sub-Section 4

Potential residual credit exposures

Article 25

Potential residual credit exposures

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

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2. Such policies and procedures shall:

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

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

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

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

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

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

3. The risk committee of the CSD-banking service provider and, where relevant, the risk committee of the CSD shall be informed of any risks that may cause potential residual credit exposures and the competent authority referred to in Article 60(1) of Regulation (EU) No 909/2014 shall be promptly informed of such risks.

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

Sub-Section 5

Reimbursement procedures and sanctioning rates

Article 26

Reimbursement procedures of intraday credit

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

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

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

Sub-Section 6

Reporting of credit risk

Article 27

Reporting to authorities on intraday risk management

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

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

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

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

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

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

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

Sub-Section 7

Public disclosure

Article 28

Public Disclosure

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

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SECTION 2

Liquidity risk

Article 29

General rules on liquidity risk

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

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

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

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

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

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

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

Sub-Section 1

Measurement of intraday liquidity risks

Article 30

Measurement of intraday liquidity risks

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

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

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

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

— cash deposited at a central bank of issue;

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— available cash deposited at other creditworthy financial institutions referred to in Article 38(1);

— committed lines of credit or similar arrangements;

— assets that fulfil the requirements of Article 10 and 11(1) of this Regulation applicable to collateral, or financial instruments compliant with the requirements set out in the Delegated Regulation (EU) 2017/392, that are readily available and convertible into cash with prearranged and highly reliable funding arrangements, as referred to in Article 38;

— the collateral referred to in Article 10 and Article 11(1);

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

(c) total value of all of the following:

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

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

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

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

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

Article 31

Measurement of overnight liquidity risks

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

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Sub-Section 2

Monitoring of intraday liquidity risks

Article 32

Monitoring intraday liquidity risks

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

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

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

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

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

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

(a) maintain, for a period of at least 10 years, a record of the daily largest positive net cumulative intraday position and the largest negative net cumulative intraday position for each settlement currency of the securities settlement system for which it acts as settlement agent;

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

Article 33

Monitoring overnight liquidity risks

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

(a) maintain, for a period of at least 10 years, a record of the liquidity risks created by the use of overnight credit for each currency of the securities settlement system for which it acts as settlement agent;

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

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Sub-Section 3

Managing Liquidity Risks

Article 34

Qualifying liquid resources

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

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

(b) available cash deposited at one of the creditworthy financial institutions identified in Article 38(1);

(c) committed lines of credit or similar agreements;

(d) assets that fulfil the requirements of Article 10 and Article 11(1) of this Regulation applicable to collateral, or financial instruments compliant with the Delegated Regulation (EU) 2017/392, that are readily available and convertible into cash with prearranged and highly reliable funding arrangements in accordance with Article 38 of this Regulation;

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

Article 35

Managing intraday liquidity risk

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

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

(b) anticipate the intraday timing of those flows;

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

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

(a) arrange to acquire sufficient intraday funding to meet its intraday objectives as they result from the analysis referred to in paragraph 1;

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

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

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

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

4. For the risk of unexpected disruptions to its intraday liquidity flows, referred to in paragraph 2(d), the CSD-banking service provider shall specify extreme but plausible scenarios, including those identified in Article 36(7) where relevant, and based at least on one of the following:

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

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

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

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

5. For the purposes of paragraph 2, the CSD-banking service provider shall also take into account the following:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

12. The CSD-banking service provider shall review the procedures referred to in paragraphs 2, 3 and 11 at least annually, taking into account all relevant market developments as well as the scale and concentration of exposures.

Article 36

Stress testing the sufficiency of liquid financial resources

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

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

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

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

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

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

4. Where the stress tests result in breaches to the agreed risk appetite referred to in point (b) of Article 32(1), the CSD-banking service provider shall:

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

(b) review and adjust its contingency plan referred to in point (c) of Article 32(1) where breaches cannot be restored by the end of the day;

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

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

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

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

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

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

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

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

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

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

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

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

(a) rank the currencies from highest to lowest based on the average of the three largest daily negative net cumulative positions, converted into euro, within a period of 12 months;

(b) consider as relevant:

(i) the most relevant Union currencies that meet the conditions specified in the Delegated Regulation (EU) 2017/392;

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

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

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Article 37

Unforeseen and potentially uncovered liquidity shortfalls

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

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

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

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

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

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

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

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

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

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

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

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

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

Article 38

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

1. For the purposes of point (e) of Article 59(4) of Regulation (EU) No 909/2014 creditworthy financial institutions shall include one of the following:

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

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

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

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

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

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

2. Where a CSD-banking service provider plans to establish a prearranged and highly reliable funding arrangement with a creditworthy financial institution as referred to in paragraph 1, it shall use only those financial institutions that at least have access to credit from the central bank issuing the currency used within the prearranged funding arrangements, either directly or through entities of the same group.

3. After a prearranged and highly reliable funding arrangement has been established with one of the institutions referred to in paragraph 1, the CSD-banking service provider shall monitor the creditworthiness of these financial institutions on an ongoing basis by applying both of the following:

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

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

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

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

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

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

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

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

6. A CSD-banking service provider which has access to routine credit at the central bank of issue shall be considered to fulfil the requirements of point (b) in paragraph 5 to the extent it has collateral that is eligible for pledging to the relevant central bank.

7. The CSD-banking service provider shall continuously monitor and control its concentration limits towards its liquidity providers, with the exception of those referred to in paragraph 6, 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 5.

8. The CSD-banking service provider shall review its policies and procedures concerning applicable concentration limits towards its liquidity providers, with the exception of those referred to in paragraph 6, 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 39, the CSD-banking service provider shall inform the competent authority of both of the following:

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

(b) cases where it exceeds a concentration limit towards its liquidity providers set out in its policies and procedures, as referred to in paragraph 5.

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10. Where 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 7.

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

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

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

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

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

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

Sub-Section 4

Reporting of Liquidity Risks

Article 39

Reporting to competent authorities on intraday risk management

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

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

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

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

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

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

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

Sub-Section 5

Public disclosure

Article 40

Public Disclosure

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

Sub-Section 6

Final provisions

Article 41

Transitional provisions

1. CSD-banking service providers shall identify the relevant currencies under point (ii) of Article 36(8)(b) 12 months after obtaining the authorisation to provide banking-type ancillary services.

2. During the transitional period of 12 months referred to in paragraph 1, the CSD-banking service providers referred to in that subparagraph shall identify the relevant currencies under point (ii) of Article 36(8)(b) by taking into account both of the following:

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

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

Article 42

Entry into force

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

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

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ANNEX

Winding-down or restructuring scenarios

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

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

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

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

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

4. The scenarios shall be commensurate with the nature of the business of the CSD, its size, its interconnectedness to other institutions and to the financial system, its business and funding model, its activities and structure, 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.

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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.