

Financial Supervision Authority advisory guidelines

Requirements for management of liquidity risk

The advisory guidelines have been established by Resolution No 1.1-7/47 of the Financial Supervision Authority management board of 3rd of July 2013.

1. Legal authority

Pursuant to section 3 of the Financial Supervision Authority Act, financial supervision is conducted by the Financial Supervision Authority in order to enhance the stability, reliability, transparency and efficiency of the financial sector, to reduce systemic risks and to promote prevention of the abuse of the financial sector for criminal purposes, with a view to protecting the interests of customers and investors by safeguarding their financial resources, and thereby supporting the stability of the Estonian monetary system.

Pursuant to subsection 57 (1) of the Financial Supervision Authority Act, the Financial Supervision Authority has the right to issue advisory guidelines to explain legislation regulating the activities of the financial sector and to provide guidance to subjects of financial supervision.

2. Objective

These advisory guidelines serve to express the Financial Supervision Authority's point of view on the good practice for management of liquidity risk. The advisory guidelines have been established with the objective of specifying the requirements stipulated in sections 80 and 82¹ of the Credit Institutions Act.

In the implementation of the guidelines, the Financial Supervision Authority will take into account the different legal and organisational structure of groups of credit institutions as well as the level of intragroup centralisation of liquidity risk management, but will assume a relevant degree of operational autonomy of the credit institutions operating in Estonia in the management of liquidity risk, including the availability of liquidity buffers of sufficient size and quality for responding to unexpected liquidity crises.

The guidelines will be implemented based on the “comply or explain” principle, under which a credit institution must be able to explain to the Financial Supervision Authority why a certain requirement established in the guidelines is not partially or completely adhered to. The explanations to be submitted to the Financial Supervision Authority shall be governed by the proportionality principle, under which the methods and procedures applied for the assessment and management of risk must comply with the gravity of the risk in the risk profile of the credit institution, the impact of the activities of the credit institution on the financial system, and the nature, extent and degree of complexity of the activities pursued. The implementation of the principle of proportionality has been described in clause 6 of the Financial Supervision Authority advisory guidelines “Application of the Supervisory Review Process under Pillar 2”.

These advisory guidelines are governed by the advisory materials on the management of liquidity risk, issued by the European Banking Authority and the Basel Committee on Banking Supervision.

3. Scope of application

- 3.1. The guidelines shall apply to all credit institutions and to branches of foreign credit institutions operating in Estonia (hereinafter referred to as the *credit institution*).
- 3.2. The guidelines shall apply to credit institutions, regardless of their legal or business structure or degree of centralisation of the management of liquidity risk.
- 3.3. In the implementation of the guidelines, the Financial Supervision Authority shall be governed by the principle of proportionality.
- 3.4. The specifications for branches of foreign credit institutions have been stipulated in clause 8 of these guidelines.

4. Terms and definitions used in the guidelines

- 4.1. Escalation procedures – measures taken by a credit institution upon occurrence of extraordinary circumstances or serious abnormalities in adherence to the internal rules of procedure.
- 4.2. Group – a cross-border consolidation group of a credit institution, where the credit institution serves as a parent, subsidiary or branch.
- 4.3. Liquidity – the ability of a credit institution to fulfil its obligations in a timely manner.
- 4.4. Liquid assets – assets unencumbered with high-liquidity collateral.
- 4.5. Contingency liquidity plan – a set of policies, procedures and activity plans serving the purpose of ensuring the preservation of the liquidity of a credit institution or swift recovery from a liquidity crisis.
- 4.6. Liquidity crisis – a situation where a credit institution or the financial market in general faces a high liquidity risk, among other things due to limited access to sources of financing.
- 4.7. Liquidity buffer – a set of assets unencumbered with high-quality and high-liquidity collateral that can be exploited in the event of a liquidity crisis.
- 4.8. Liquidity deficit – a situation where the negative cash flow forecast of a credit institution for a certain period of time exceeds the positive cash flow forecast.
- 4.9. Liquidity risk – the risk of a credit institution being unable to fulfil its obligations in a timely manner or in the full extent without incurring significant costs in the process.
- 4.10. Management of liquidity risk – a set of activities aiming at systematic identification, measurement, control and monitoring of the liquidity risk of a credit institution.

- 4.11. Liquidity risk stress test – an analysis which aims at assessing the impact of significant unfavourable changes in the operating environment on the liquidity of a credit institution.
- 4.12. Liquidity risk tolerance – a level of liquidity risk to which a credit institution has been deliberately exposed.
- 4.13. Central management of liquidity risk – a situation where a credit institution organises, in a significant extent, the management of liquidity risk, including engagement of resources, via a unit of the same group located in another jurisdiction.
- 4.14. Maintenance period – a time period during which a credit institution is able to continue business as usual, and fulfil its obligations without engaging additional resources.
- 4.15. Resources – debt financing engaged by a credit institution, including deposits, loans received and funds raised through other sources.
- 4.16. Market liquidity – a characteristic feature of a financial instrument, expressing the speed in which the financial instrument can be exchanged for money or against another financial instrument without bearing significant damage.
- 4.17. Unit – a structural unit of a credit institution or a legal unit of a group of credit institutions.

5. General requirements for management of liquidity risk

- 5.1. A credit institution shall have sufficient liquidity for fulfilling its obligations at any given moment in time.
- 5.2. A credit institution shall establish a reliable framework for management of liquidity risk as a part of the general risk management framework.
- 5.3. The purpose of liquidity risk management is to ensure that a credit institution is able to fulfil its obligations in a timely manner and in the full extent, and to cope with a liquidity crisis for as long as possible.
- 5.4. The liquidity risk management framework of a credit institution shall cover all activities required for reliable identification, measurement, controlling and monitoring of liquidity risk.
- 5.5. To ensure sufficient operational autonomy, a credit institution shall identify, measure, control and monitor its liquidity risk separately from other units of the same group located in other jurisdictions, and shall not delegate management of liquidity risk fully to a unit of the same group located in another jurisdiction.
- 5.6. In management of liquidity risk, a credit institution shall consider the different manifestations of liquidity risk, including:
 - 1) financing risk – i.e. the risk of a credit institution being unable to engage resources without negatively affecting its daily activities or financial position;
 - 2) market liquidity risk – i.e. the risk of a credit institution being unable, due to low trading activity or a market failure, to dispose of a financial instrument without taking significant damage.

5.7. A credit institution shall constantly assess the liquidity risk and evaluate the combined impact of other risks, especially of credit risk, market risk, operational risk and reputation risk.

6. Obligations of the supervisory board of a credit institution in the management of liquidity risk

6.1. The supervisory board of a credit institution shall establish a liquidity risk strategy for the credit institution, as well as the general principles for managing liquidity risk.

6.2. The supervisory board of a credit institution shall review the liquidity risk strategy at least once a year, and introduce changes, where necessary, by considering changes in the activities, liquidity risk tolerance and operating environment of the credit institution.

6.3. The supervisory board of a credit institution shall make sure that the activities of the management board of the credit institution and the liquidity risk policies and procedures established by the management board are in compliance with the liquidity risk strategy of the credit institution.

6.4. The supervisory board of a credit institution shall make sure that the credit institution establishes the relevant procedures and systems for identification, measurement, controlling and monitoring of all sources of liquidity risk.

6.5. The supervisory board of a credit institution shall be provided with relevant information on the liquidity risk level and potential liquidity problems of a credit institution on a regular basis.

7. Obligations of the management board of a credit institution in the management of liquidity risk

7.1. The management board of a credit institution shall be responsible for the implementation of the liquidity risk strategy and practical organisation of the management of liquidity risk.

7.2. The management board of a credit institution shall establish policies and procedures in line with the liquidity risk strategy approved by the supervisory board of the credit institution.

7.3. The management board of a credit institution shall review the liquidity risk policies and procedures at least once a year, and introduce changes, where necessary, by considering changes in the activities, liquidity risk tolerance and operating environment of the credit institution.

7.4. The management board of a credit institution shall designate the units, committees and staff members of the credit institution responsible for the management of liquidity risk, whilst ensuring the separation of operational and control functions of liquidity risk management for prevention of conflicts of interests.

7.5. The management board of a credit institution shall ensure that all units of the credit institution, whose daily operations could have an impact on the liquidity of the credit

institution, would have an overview of the credit institution's liquidity risk strategy, the policies and procedures for the implementation of the strategy, organisation of the management of liquidity risk, and the liquidity risk limits and internal control mechanisms established.

- 7.6. The management board of a credit institution shall ensure availability of authorisations, experience, knowledge and skills required for the management of liquidity risk.
- 7.7. The management board of a credit institution shall ensure availability of the relevant internal control mechanisms for the management of liquidity risk.
- 7.8. The management board of a credit institution shall establish liquidity risk limits, and regularly review these limits, introducing changes, where necessary.
- 7.9. The management board of a credit institution shall establish a procedure for notification of any breach of liquidity risk limits, including escalation procedures and the procedure for follow-up activities.
- 7.10. The management board of a credit institution shall constantly monitor the trends and developments of financial markets, which may significantly affect the level of liquidity risk in the credit institution.
- 7.11. The management board of a credit institution shall have a comprehensive overview of the structure, nature, and distribution of the sources of financing of the credit institution.
- 7.12. The management board of a credit institution shall constantly monitor the liquidity of the credit institution and the management of liquidity risk, and regularly report the results to the supervisory board of the credit institution.
- 7.13. The management board of a credit institution shall establish a procedure for internal reporting of the liquidity risk, including the form and frequency of the reports.
- 7.14. The management board of a credit institution shall immediately notify the supervisory board of the credit institution of any significant increase in or the danger of a significant increase in liquidity risk, including the occurrence of the following circumstances:
 - 1) a significant increase in the cost of resources;
 - 2) decrease in and concentration of sources of financing;
 - 3) loss of alternative sources of financing;
 - 4) a significant increase in the liquidity deficit forecasts;
 - 5) a significant or continual violation of the liquidity risk limits;
 - 6) a significant decrease in liquidity buffers;
 - 7) a significant deterioration in the market conditions affecting the credit institution.
- 7.15. The management board of a credit institution shall establish a procedure for liquidity risk stress testing, and regularly review the procedure, introducing changes, where necessary.
- 7.16. The management board of a credit institution shall establish the stress scenarios to be used for liquidity risk stress testing, and their key assumptions.

- 7.17. The management board of a credit institution shall thoroughly analyse the results of the liquidity risk stress tests, and apply measures for minimising the liquidity risk, where necessary, including bringing the level of liquidity risk into line with the liquidity risk tolerance of the credit institution or enhancing liquidity buffers.
- 7.18. The management board of a credit institution shall notify the supervisory board of the credit institution of any significant weaknesses discovered in the course of liquidity risk stress testing, and the steps taken to remedy the situation.
- 7.19. The management board of a credit institution shall establish a procedure for preparing a contingency liquidity plan, and regularly review the procedure, introducing changes, where necessary.
- 7.20. The management board of a credit institution shall thoroughly analyse the results of the testing of the contingency liquidity plans, and apply measures for minimising the liquidity risk, where necessary, including bringing the level of liquidity risk into line with the liquidity risk tolerance of the credit institution or enhancing liquidity buffers.
- 7.21. The management board of a credit institution shall notify the supervisory board of the credit institution of any significant weaknesses discovered in the course of testing of the contingency liquidity plan, and the steps taken to remedy the situation.
- 7.22. The management board of a credit institution shall establish the policies and procedures required for the functioning of the system of internal pricing of liquidity risk and distribution of liquidity costs.

8. Specification of the requirements for the management bodies of branches of foreign credit institutions

- 8.1. In case of a branch of a foreign credit institution, the supervisory board of the foreign credit institution shall be treated as the supervisory board for the purposes of these guidelines.
- 8.2. In case of a branch of a foreign credit institution, the individuals responsible for the management of the branch operating in Estonia shall be treated as the management board.
- 8.3. A branch of a foreign credit institution shall make sure that the liquidity risk strategy approved by the management bodies of the foreign credit institution and the corresponding policies and procedures would be available to the Financial Supervision Authority.

9. Internal control system for management of liquidity risk

- 9.1. A credit institution shall establish a reliable internal control system for management of liquidity risk, including risk control and internal audit procedures.
- 9.2. The internal control system for management of liquidity risk shall ensure that the management of liquidity risk within the credit institution would comply with the regulatory requirements and internal policies, procedures and limits of the credit institution.

- 9.3. Independent of the establishment and management of liquidity positions, the risk control function of a credit institution shall continually monitor the level of liquidity risk and management of liquidity risk in a credit institution.
- 9.4. The internal audit function of a credit institution shall regularly evaluate the reliability of the identification, measurement, controlling and monitoring of the liquidity risk of the credit institution.

10. Liquidity risk strategy

- 10.1. The liquidity risk strategy of a credit institution shall comply with the nature, extent and degree of complexity of the activities of a credit institution, as well as its general business strategy.
- 10.2. The liquidity risk strategy of a credit institution shall comply with the liquidity risk tolerance, and take into account the financial position of the credit institution, and its access to sources of financing.
- 10.3. The liquidity risk strategy shall cover the management of liquidity risk in a credit institution in both standard conditions and in the event of a liquidity crisis.
- 10.4. The liquidity risk strategy shall make sure that the credit institution would manage its liquidity risk in such a way as to be able to cope with a liquidity crisis for a sufficient period of time.
- 10.5. Among other things, the liquidity risk strategy shall stipulate the below principles:
 - 1) general organisation of the management of liquidity risk, including the degree of centralisation;
 - 2) financing strategy;
 - 3) structure of assets and liabilities;
 - 4) structure of maturities and currencies;
 - 5) the options for transfer of liquidity within the different units of the group and different jurisdictions;
 - 6) general principles for management of the liquidity buffer.

11. Financing strategy

- 11.1. The financing strategy of a credit institution forms an integral part of the liquidity risk strategy of the credit institution and serves to ensure sufficient distribution of the sources of financing.
- 11.2. A credit institution shall prevent excessive concentration of resources with regard to counterparties, financial instruments, maturities, currencies and financial markets.
- 11.3. The financing strategy of a credit institution shall take into account the impact of different market conditions on access to financing sources.

- 11.4. A credit institution shall constantly assess and monitor the key factors that may affect its ability to promptly engage resources.
- 11.5. A credit institution shall take into account the impact of the behaviour of its significant investors and customers on its liquidity.
- 11.6. Where a credit institution finances its activities through resources engaged from money markets and capital markets, the credit institution shall consider the higher volatility of the sources of financing, compared to customer-deposit-based financing.
- 11.7. Where a credit institution finances its activities through resources engaged from money and capital markets, the credit institution shall consider that, in the event of a liquidity crisis, the credit institution's access to sources of financing may significantly deteriorate or be blocked altogether. Similarly, the rate of return demanded by the investors may soar, and the maturity terms be significantly shortened.
- 11.8. A credit institution shall identify alternative sources of financing and the options for their use, depending on the nature, severity and duration of the liquidity crisis, including weigh the following options for engaging resources:
 - 1) engagement of deposits;
 - 2) extension of the terms of obligations;
 - 3) issue of short-term and long-term debt instruments;
 - 4) intragroup transfer of liquidity;
 - 5) issue of capital instruments;
 - 6) disposal of assets;
 - 7) securitisation of assets;
 - 8) exploitation of credit lines;
 - 9) participation in the credit programmes of central banks.
- 11.9. A central bank shall be operationally prepared for accessing different sources of financing and disposal of assets, including documentation and IT system standby.
- 11.10. A credit institution shall have a comprehensive understanding of the legal and contractual framework regulating the disposal of assets, including the loans granted, and shall make sure that the contracts related to the assets would be lawful and reliable.

12. Liquidity risk policies and procedures

- 12.1. Liquidity risk policies and procedures shall determine the procedure for identification, measurement, control and monitoring of the liquidity risk of a credit institution.
- 12.2. Liquidity risk policies and procedures shall establish the organisation of the management of liquidity risk, the units responsible for the management of liquidity risk, and their authorisations and duties.
- 12.3. Liquidity risk policies and procedures shall establish the following processes in a credit institution:

- 1) identification of liquidity risk;
- 2) measurement of liquidity risk;
- 3) controlling of liquidity risk, including establishment of liquidity risk limits;
- 4) monitoring of liquidity risk, including internal reporting;
- 5) internal control mechanisms implemented for the management of liquidity risk;
- 6) cash flow and resource management;
- 7) hedging of liquidity risk;
- 8) management of the liquidity buffer;
- 9) management of assets eligible for collateral;
- 10) liquidity risk stress testing;
- 11) preparation of contingency liquidity plans.

13. Identification of liquidity risk

- 13.1. For identification of liquidity risk, a credit institution shall assess the cash flows generated from assets, liabilities and off-balance-sheet positions that have an effect on the liquidity and financing need of the credit institution.
- 13.2. A credit institution shall identify the liquidity risk in all of its units.
- 13.3. A credit institution shall prepare the cash flow forecast based on both the principle of going concern and the assumption of a liquidity crisis.
- 13.4. In identifying liquidity risk, a credit institution shall take into consideration both contractual cash flows and the cash flow forecast based on the expected behaviour of the credit institution itself, its counterparties and the financial market in general.
- 13.5. In preparing a forecast for the behaviour of counterparties and the financial market, a credit institution shall rely, among other things, on historical experience.
- 13.6. A credit institution shall evaluate the potential cash flows from off-balance-sheet positions, including cash flows from credit limits, transactions with the right of recourse, guarantees, documentary credits and derivative instruments.
- 13.7. A credit institution shall evaluate the factors triggering the realisation of off-balance-sheet positions and the probability of realisation.
- 13.8. A credit institution shall evaluate the potential impact of a liquidity crisis on intragroup cash flows, especially in case of central management of liquidity risk.
- 13.9. A credit institution shall evaluate the stability of its sources of financing, especially in the event of a liquidity crisis.
- 13.10. A credit institution shall evaluate the stability of the resources offered by institutional investors, considering, among other things, a scenario where the financing agreements are not renewed upon their maturity.

- 13.11. A credit institution shall evaluate the stability of customer deposits, considering, among other things, the volume of large deposits, concentration of deposits and sensitivity of customers to changes in deposit interest rates.
- 13.12. In identifying liquidity risk, a credit institution shall take into account the combined impact of the financing risk and market liquidity risk, including the impact of low market liquidity on the ability of the credit institution to finance its activities through disposal of assets.
- 13.13. A credit institution shall analyse the quality of assets and their eligibility for collateral in the event of a liquidity crisis.
- 13.14. A credit institution shall take into account the additional liquidity risk arising from abrupt fluctuations in currency exchange rates or market liquidity due to foreign-currency financing of assets denominated in local currency or local-currency financing of assets denominated in foreign currency.
- 13.15. A credit institution shall take into account the additional liquidity risk in different market situations, arising from the financing of local assets in foreign markets or the financing, in the local market, of assets located in foreign markets.

14. Measurement of liquidity risk

- 14.1. For measurement of liquidity risk, a credit institution shall use various assessment methods and measurement tools that comply with the nature of the activities of, level of liquidity risk of and risk tolerance of the credit institution.
- 14.2. The assessment methods and measurement tools to be used in the measurement of liquidity risk shall allow measuring the liquidity risk of the credit institution both in standard market conditions and in the event of a liquidity crisis.
- 14.3. One of the primary goals of measuring liquidity risk is the identification of a potential liquidity deficit by different time periods and currencies.
- 14.4. The assessment methods and measurement tools to be used in the measurement of liquidity risk shall allow analysing the structure of assets, liabilities and off-balance-sheet positions of the credit institution as well as the estimated future cash flows in different market conditions and stress scenarios.
- 14.5. A credit institution shall use the dynamic cash flow forecasting method for measurement of liquidity risk.
- 14.6. In the measurement of liquidity risk and identification of a potential future liquidity deficit, a credit institution shall take into consideration all positive and negative cash flow forecasts as well as the value of its liquid assets and any forecasted changes thereto.
- 14.7. A credit institution shall have the ability to measure positive and negative cash flows by different time periods, currencies, financial instruments and units.
- 14.8. A credit institution shall calculate the difference between positive and negative cash flows – i.e. net cash flows – for each maturity bucket.

- 14.9. A credit institution shall accumulate net cash flows in order to determine the time period during which the net cash flows will be positive.
- 14.10. In measuring liquidity risk, a credit institution shall use, in addition to the cash-flow-based methods, methods which are based on the balance sheet structure and may, among other things, contain the following liquidity ratios:
- 1) the ratio between liquid assets and short-term (i.e. with a term of up to 30 days) liabilities;
 - 2) the share of liquid assets in total assets;
 - 3) the share of long-term (i.e. with a term of over 1 year) resources in total resources;
 - 4) the share of resources from institutional investors in total resources;
 - 5) the loans to deposits ratio.
- 14.11. A credit institution shall regularly review the assessment methods and measurement tools used for the measurement of liquidity risk, introducing changes, where necessary.
- 14.12. A credit institution shall document and regularly review the key assumptions in the measurement of liquidity risk.
- 14.13. The assumptions made by a credit institution in the measurement of liquidity risk shall be justifiable and relevant.
- 14.14. A credit institution shall pay special attention to assumptions made in the measurement of the liquidity risk of demand deposits and other undefined assets, liabilities and off-balance sheet positions, as well as with regard to access to alternative sources of financing.

15. Controlling of liquidity risk

- 15.1. For controlling liquidity risk, a credit institution shall establish liquidity risk limits that consider the nature of the activities and the operating environment.
- 15.2. A credit institution shall regularly review the liquidity risk limits, introducing changes, where necessary.
- 15.3. A credit institution shall establish the procedure for setting liquidity risk limits, stipulating how, by whom and with respect to whom the liquidity risk limits are to be set, and how the limits are to be changed and breach of the limits reported.
- 15.4. A credit institution shall establish the relevant escalation procedures for breach of the liquidity risk limits.
- 15.5. A credit institution shall establish liquidity risk limits for all key units.
- 15.6. A credit institution shall establish limits by key currencies for its business activities, whilst considering the potential difficulties in the conversion of currencies in the event of a liquidity crisis.

- 15.7. A credit institution shall ascertain the growth trend of liquidity risk and early warning indicators for preventive identification of liquidity risk, and review these on a regular basis.
- 15.8. The early warning indicators shall take into account both the qualitative and quantitative factors contributing to the liquidity of a credit institution, and may, among other things, include the following indicators:
- 1) growth in uncertainties related to sources of financing;
 - 2) rise in the cost of resources;
 - 3) shortening of resource maturities;
 - 4) outflow of customer deposits;
 - 5) increase in the frequency of premature termination of customer deposits;
 - 6) quick growth in assets;
 - 7) increase in the concentration of assets or liabilities;
 - 8) increase in non-matching currencies;
 - 9) increase in operational risks, including deterioration in the quality of assets;
 - 10) deterioration in profitability or the financial position;
 - 11) deterioration of the credit rating of the credit institution or its group;
 - 12) negative publicity;
 - 13) continual breach of the liquidity risk limits;
 - 14) demand for additional collateral by counterparties;
 - 15) cancellation or lowering of credit limits by correspondent banks.

16. Monitoring of liquidity risk

- 16.1. A credit institution shall establish reliable procedures for monitoring liquidity risk, which would allow to notify the supervisory board, management board and the relevant staff members of the credit institution in a timely manner of the level of liquidity risk in the credit institution.
- 16.2. The procedures for monitoring liquidity risk shall allow evaluation of the management of liquidity risk in a credit institution, including intraday liquidity management and its compliance with the established policies, procedures and limits.
- 16.3. The procedures and IT systems for monitoring liquidity risk shall allow to:
- 1) measure the liquidity risk by different time periods;
 - 2) measure the liquidity risk by different currencies;
 - 3) monitor different indicators of liquidity risk;
 - 4) monitor the level of liquid assets of credit institutions;
 - 5) evaluate the liquidity risk trends of the credit institution.

16.4. A credit institution shall monitor liquidity risk in all units, including subsidiaries and branches.

17. Intraday liquidity management

17.1. A credit institution shall establish policies and procedures for the management of intraday liquidity, which would take into account the nature of the activities of the credit institution and its role in the functioning of payment and settlement systems.

17.2. A credit institution shall continually identify, measure, control and monitor intraday liquidity, including availability of liquid assets for the day, the intraday liquidity need and the functioning of the payment and settlement systems.

17.3. Intraday liquidity management shall secure the credit institution's ability to fulfil the payment and settlement-related obligations in different currencies and payment and settlement systems.

17.4. A credit institution shall have sufficient intraday liquidity for fulfilling its intraday obligations.

17.5. A credit institution shall monitor liquidity on the basis of various indicators which may, among other things, include the following indicators:

- 1) maximum intraday liquidity need;
- 2) the volume of liquid assets for the day;
- 3) total volume of payments;
- 4) total volume of payments made on behalf of customers of the credit institution;
- 5) total volume and use of intraday credit limits of the customers of the credit institution;
- 6) timing of intraday payments;
- 7) time-specific and time-critical liabilities;
- 8) capacity for effecting intraday payments.

17.6. A credit institution shall be able to measure the estimated positive and negative intraday cash flows, and to evaluate their timing.

17.7. A credit institution shall evaluate the maximum intraday liquidity need on the basis of accumulated net cash flows, which is the difference between the payments received and payments effected during the day.

17.8. Should a credit institution ascertain that the intraday liquidity need exceeds the liquid assets for the day, the credit institution shall take steps for managing the cash flows, including changing the timing of the cash flows, securing additional liquidity or limiting negative cash flows.

17.9. A credit institution shall analyse the options for securing additional intraday liquidity, including the following potential sources:

- 1) available intraday credit lines;

- 2) available intraday funds on current accounts opened with other credit institutions;
- 3) payments from other payment system participants, including intraday transactions and overnight transactions on money markets;
- 4) funds on current accounts opened with the central bank;
- 5) assets collateralised with the central bank;
- 6) unencumbered assets, which may be collateralised with the central bank.

17.10. Liquidity risk stress tests and contingency liquidity plans of a credit institution shall take into account the aspects related to intraday liquidity management.

17.11. Operational risk management and business continuity plans of the credit institution shall take into account the aspects related to intraday liquidity management.

18. Liquidity buffer

18.1. A credit institution shall maintain, at all times, a liquidity buffer with the aim of securing the ability of the credit institution to fulfil its obligations in the event of a liquidity crisis where the engagement of additional resources or transfer of intragroup liquidity is complicated.

18.2. Liquidity buffer shall allow a credit institution to continue business as usual, at least during the maintenance period.

18.3. In the establishment of the maintenance period, a credit institution shall take into account the accumulated net cash flows in order to ensure that the liquidity buffer is sufficient for fulfilment of the obligations during the entire maintenance period.

18.4. The size of the liquidity buffer shall correspond to the activities of the credit institution, the diversity of the sources of financing, liquidity risk tolerance and the level of liquidity risk.

18.5. In the event of a liquidity crisis, the size of the liquidity buffer shall ensure a maintenance period of at least one month.

18.6. In determining the size of the liquidity buffer, a credit institution shall pay attention, above all, to the following factors:

- 1) liquidity deficit forecast;
- 2) gravity and duration of a potential liquidity crisis;
- 3) recommended length of the maintenance period;
- 4) realisable value or collateral value of assets included in the liquidity buffer.

18.7. In determining the size of the liquidity buffer, a credit institution shall take into account the results of the liquidity risk stress testing.

18.8. A liquidity buffer shall consist of high-credit-quality liquid assets that have been secured and have not been encumbered (e.g. cash and low-credit-risk debt instruments).

18.9. Assets included in the liquidity buffer should meet the following conditions:

- 1) structure of the financial instrument and the risks involved are transparent;
 - 2) the issuer of the financial instrument is reliable;
 - 3) the appraisal of the financial instrument is simple and reliable;
 - 4) the financial instrument meets the general eligibility criteria of central bank credit programmes;
 - 5) the financial instrument has high market liquidity.
- 18.10. The assets included in the liquidity buffer shall be free of any legal, regulatory or operational restrictions which would hinder their disposal or collateralisation.
- 18.11. A credit institution shall assess the value of the assets included in the liquidity buffer and their market liquidity in the event of a liquidity crisis conservatively.
- 18.12. A credit institution shall avoid unjustifiable concentration of assets included in the liquidity buffer with regard to issuers, maturities and currencies.

19. Organisation of central management of liquidity risk

- 19.1. The management of liquidity risk in a credit institution may be centralised only if the credit institution is able to prove that there are no material legal, regulatory, operational or other restrictions and hindrances to intragroup transfer of liquidity.
- 19.2. In the organisation of the central management of liquidity risk, a credit institution shall ensure sufficient operational autonomy for daily management of liquidity risk and for independently coping with the liquidity crisis for as long as possible.
- 19.3. Even in case of central management of liquidity risk, a credit institution shall have sufficient local competence for management of liquidity risk and understanding of the local legal and regulatory requirements affecting the management of liquidity risk, including the deposit guarantee scheme, terms and conditions for participation in the central bank credit programmes and the procedures for collateralisation of assets with the central bank.
- 19.4. In case of central management of liquidity risk, a credit institution shall ensure continual and operative exchange of information on liquidity risk between the credit institution and other units of the group.
- 19.5. In case of central management of liquidity risk, a credit institution shall establish policies and procedures stipulating the principles of and procedure for intragroup transfer of liquidity.
- 19.6. In case of central management of liquidity risk, a credit institution shall enter into legally binding contracts with other units of the group for operative transfer of liquidity and central management of the liquidity buffer.
- 19.7. In making assumptions with regard to intragroup transfer of liquidity, a credit institution shall take into account the operational organisation required for efficient transfer of liquidity as well as the time to be allocated for the transfer of liquidity.

- 19.8. A credit institution shall document any assumptions made in the management of liquidity with regard to intragroup transfer of liquidity.
- 19.9. Where the management of liquidity risk has been centralised, a credit institution shall conservatively evaluate the assumptions made on intragroup transfer of liquidity in case of a significant increase in the liquidity risk of other units of the group.
- 19.10. In determining the size of the centrally managed liquidity buffer and its location within the group, the systemic importance of the credit institution at the local market, the level of liquidity risk, independent access to sources of financing as well as regulatory requirements and positions of the relevant supervisory authorities shall be taken into account.
- 19.11. In case of central management of liquidity risk, a credit institution shall establish its minimum maintenance period without any liquidity support by the group in the event of a liquidity crisis.
- 19.12. In case of central management of liquidity risk, a credit institution shall pay special attention to the risk of contagion of the liquidity crisis within the group, and take steps to minimise this risk.
- 19.13. A credit institution shall assess the risk of contagion of the liquidity crisis within the group, among other things, against the occurrence of a reputation risk event, and minimise its potential impact by establishing an efficient communication policy, setting up a sufficient local liquidity buffer and dispersing the sources of financing.

20. Management of assets eligible for collateral

- 20.1. As a part of the management of liquidity risk, a credit institution shall actively manage its assets that are eligible for collateral and allow engagement of additional resources, if necessary.
- 20.2. A credit institution shall establish policies and procedures for management of assets eligible for collateral.
- 20.3. A credit institution shall have complete overview of its assets eligible for collateral, and be able to distinguish between assets encumbered with collateral and assets unencumbered with collateral.
- 20.4. A credit institution shall be able to appraise the assets eligible for collateral, including assets encumbered with collateral and assets unencumbered with collateral.
- 20.5. A credit institution shall consider the potential legal, regulatory and operational restrictions and hindrances to the collateralisation of assets.
- 20.6. A credit institution shall consider the contractual conditions related to the collateralisation of assets, which may incur additional obligations on the credit institution.
- 20.7. A credit institution shall consider the potential operational restrictions and time delay arising from the location of assets eligible for collateral.

- 20.8. A credit institution shall assess the eligibility of its assets for collateralisation with the central bank for the purpose of using intraday credit, repurchase transactions or monetary policy instruments.
- 20.9. A credit institution shall evaluate the eligibility of its assets for collateralisation with other counterparties, including the interbank market.
- 20.10. A credit institution shall avoid excessive concentration of assets eligible for collateral by taking into account, among other things, the volume restrictions affecting the collateralisation of assets, sensitivity of market prices and potential impairment of assets in the conditions of a liquidity crisis.

21. Pricing of liquidity risk and redistribution of liquidity costs

- 21.1. A credit institution shall establish a reliable internal system for the pricing of liquidity risk and redistribution of liquidity costs.
- 21.2. A credit institution shall measure the costs incurred for securing liquidity, and take the costs into account in internal pricing, measurement of efficiency and approval of new products.
- 21.3. A credit institution shall attribute liquidity costs to specific positions, portfolios or transactions.
- 21.4. The pricing of liquidity risk shall include all of the credit institution's assets, liabilities and off-balance-sheet positions which play a role in liquidity.
- 21.5. Liquidity risk pricing methods shall take into account the market conditions (including the general level of interest rates) and specific circumstances related to the credit institution (including the cost of resources for the credit institution).
- 21.6. Liquidity risk pricing methods shall identify all costs related to the engagement of resources.
- 21.7. Liquidity risk pricing methods shall be documented and shall describe, with a sufficient level of detail, all key aspects of the liquidity risk pricing methods, including the selection of the interest curve and the establishment of the liquidity price gain and price spread.
- 21.8. The liquidity cost redistribution system shall comply with the organisation of the general management of the credit institution, liquidity risk tolerance and liquidity risk management.
- 21.9. The liquidity cost redistribution system shall not give rise to a conflict of interests between the remuneration procedure and the liquidity risk strategies, policies and procedures.
- 21.10. The liquidity cost redistribution system shall take into account the liquidity need of the units of a credit institution, and the liquidity risk inherent in their activities.
- 21.11. The liquidity cost redistribution system shall take into account both direct and indirect liquidity costs.

22. Liquidity risk stress testing

- 22.1. A credit institution shall conduct liquidity risk stress tests on a regular basis, at least once every six months.
- 22.2. The frequency of liquidity risk testing shall depend on the size of the credit institution, its systemic importance and the level of liquidity risk.
- 22.3. A credit institution shall increase the frequency of liquidity risk stress testing against any rise in the probability of occurrence of a liquidity crisis.
- 22.4. Based on liquidity risk stress testing, a credit institution shall:
 - 1) identify the potential sources of a liquidity crisis;
 - 2) evaluate the compliance of the actual liquidity risk with the liquidity risk strategy and liquidity risk tolerance;
 - 3) test the relevance of the liquidity risk policies and procedures;
 - 4) prepare, through liquidity risk contingency planning, for the management of liquidity risk in the event of a liquidity crisis.
- 22.5. In conducting liquidity risk stress tests, a credit institution shall use liquidity risk stress scenarios of different difficulty levels and durations.
- 22.6. Liquidity risk stress scenarios shall reflect on exceptional events which may have a significant negative impact.
- 22.7. Liquidity risk stress scenarios shall take into account the nature of the activities of the credit institution, and the key factors contributing to liquidity risk.
- 22.8. Liquidity risk stress scenarios shall take into account the impact of the behaviour of the customers and other counterparties of a credit institution on the cash flows of the credit institution, including intraday cash flows.
- 22.9. Liquidity risk stress scenarios shall take into account the expected behaviour of other market participants in the event of a liquidity crisis, and its potential impact on the financial market.
- 22.10. A credit institution shall use the following scenarios in liquidity risk stress testing:
 - 1) credit-institution-based liquidity risk stress scenarios;
 - 2) market-based liquidity risk stress scenarios;
 - 3) scenarios combining credit-institution-based and market-based liquidity risk stress scenarios.
- 22.11. Among other things, credit-institution-based liquidity risk stress scenarios shall include the following situations that may give rise to a liquidity crisis:
 - 1) outflow of retail customer deposits;
 - 2) outflow of corporate customer deposits, especially major customers;

- 3) shortening of customer deposit maturities;
- 4) difficulties in engaging resources and refinancing from institutional investors;
- 5) deterioration in the credit rating or outlook of a credit institution or its group;
- 6) abrupt increase in the use of credit limits by major customers;
- 7) restrictions on the collateralisation of assets and additional collateral requirements against the credit institution.

22.12. Among other things, market-based liquidity risk stress scenarios shall include the following situations that may give rise to a liquidity crisis:

- 1) deterioration of access to sources of financing;
- 2) general rise in the cost of resources;
- 3) general shortening of resource maturities;
- 4) drop in the market value of assets;
- 5) decrease in the liquidity of the financial market;
- 6) exiting of a systemically important market participant from the financial market;
- 7) disturbances in the functioning of the interbank market;
- 8) deterioration in the convertibility of currencies;
- 9) deterioration of access to resources denominated in a specific currency;
- 10) drop in the value of currencies;
- 11) disturbances in payment and settlement systems.

22.13. In liquidity risk stress testing, a credit institution shall also take into account the aspects related to intraday liquidity management.

22.14. Among other things, aspects related to intraday liquidity management shall include the following situations that may give rise to a liquidity crisis:

- 1) a liquidity crisis within the credit institution, blocking access to intraday credit limits with counterparties;
- 2) a liquidity crisis in the key counterparty of the credit institution, with the counterparty suspending payments;
- 3) a liquidity crisis in the counterparty of the correspondent bank, significantly deteriorating the liquidity of the correspondent bank;
- 4) cross-market liquidity crisis, triggering an impairment of the liquid assets of the credit institution and complicating collateralisation of the assets for the purpose of obtaining additional liquidity.

22.15. The assumptions made in liquidity risk stress testing shall be conservative and shall comply with the difficulty level of the stress scenario.

22.16. A credit institution shall document the stress scenarios used for liquidity risk stress testing, and their key assumptions.

- 22.17. A credit institution shall regularly review the stress scenarios used for liquidity risk stress testing and their key assumptions, so as to ensure the relevance of their nature and difficulty level and compliance with the activities of the credit institution.
- 22.18. In case of material changes in its business activities or market conditions, the credit institution shall immediately review the liquidity risk stress scenarios and their key assumptions, introducing changes, where necessary.
- 22.19. A credit institution shall take into account the results of the stress tests of other risks, and the corresponding impact on liquidity.
- 22.20. A credit institution shall take the results of liquidity risk stress tests into account in the review of the liquidity risk strategy, policies and procedures.
- 22.21. A credit institution shall take the results of liquidity risk stress tests into account in establishing liquidity risk limits.
- 22.22. The results of liquidity risk stress tests shall be used as the key input in the preparation of contingency liquidity plans of a credit institution.

23. Contingency liquidity plan

- 23.1. A credit institution shall prepare a contingency liquidity plan, specifying the activities and measures to be applied by the credit institution in the event of a liquidity crisis.
- 23.2. A contingency liquidity plan shall describe the credit institution's strategy, policy and activity plan for coping with liquidity crises of different magnitude, and stipulate a clear chain of command and escalation procedures.
- 23.3. A contingency liquidity plan shall take into account the nature and extent of the activities of the credit institution, and its general risk profile and role on the financial market.
- 23.4. The contingency liquidity plan shall comply with the general business continuity plan of the credit institution, and be implementable also in a situation where the credit institution applies the extraordinary measures set forth in the business continuity plan.
- 23.5. A contingency liquidity plan shall be closely integrated with the liquidity risk management procedures of the credit institution, and the stress scenarios and assumptions used in liquidity risk stress testing.
- 23.6. In contingency liquidity plan, a credit institution shall pay special attention to the following factors:
- 1) the impact of the liquidity crisis on the ability to dispose or collateralise assets;
 - 2) the impact of the liquidity crisis on the credit institution's access to sources of financing;
 - 3) the reputation risk inherent in the application of extraordinary measures;
 - 4) legal, regulatory and operational restrictions and hindrances to the transfer of liquidity between the units of the credit institution.

- 23.7. A contingency liquidity plan shall contain a list of specific, realistic and flexible extraordinary measures that the credit institution can apply for the purpose of maintaining liquidity or eliminating liquidity deficit in the event of a liquidity crisis.
- 23.8. A contingency liquidity plan shall clearly stipulate the following:
- 1) the units, committees and staff members responsible for the implementation of the contingency liquidity plan;
 - 2) the events triggering the implementation of the contingency liquidity plan;
 - 3) a detailed activity plan, including the measures to be applied and their time frame;
 - 4) possible extraordinary sources of financing and the potential volume of the resources thus engaged;
 - 5) the preparations required for exploiting the extraordinary sources of financing, and the time frame;
 - 6) a communication plan for communicating with the staff members, customers and owners of the credit institution as well as central banks, financial supervision authorities and the media;
 - 7) escalation procedures for the timing and methods of implementation of extraordinary measures.
- 23.9. The contingency liquidity plan of a credit institution shall stipulate the potential measures for maintaining and increasing liquidity in the event of liquidity crisis, including:
- 1) participation in the credit programmes of central banks;
 - 2) waiver from the acquisition of additional assets, including establishment of restrictions on the disbursement of new loans;
 - 3) execution of repurchase transactions;
 - 4) adjustment of the terms of money market transactions, including shortening of the terms of loans granted to other credit institutions;
 - 5) engagement of additional customer deposits;
 - 6) reduction of the credit limit of customers.
- 23.10. Where the contingency liquidity plan stipulates participation in the credit programmes of central banks as one of the potential sources of extraordinary financing, the credit institution shall take into account the eligibility criteria and other operation requirements established by the central bank, as well as the related reputation risk.
- 23.11. In case of central management of liquidity risk, a credit institution shall pay attention to the following factors in the preparation of a contingency liquidity plan:
- 1) the policies and procedures established by the group with regard to the conditions and timing of the transfer of liquidity to units located in other jurisdictions;
 - 2) the possible restrictions and hindrances to the transfer of liquidity to units located in other jurisdictions;
 - 3) the time needed for and potential time delay in the transfer of liquidity to units located in other jurisdictions;

- 4) the legal and regulatory framework regulating the transfer of liquidity to units located in other jurisdictions;
 - 5) intragroup procedures for transfer of liquidity to units located in other jurisdictions.
- 23.12. A contingency liquidity plan shall cover the management of intraday liquidity, including the ability of the credit institution to engage intraday liquidity in the event of a liquidity crisis, and to identify critical payments and establish a higher priority for such payments.
- 23.13. A credit institution shall test the contingency liquidity plan at least once a year, introducing changes, where necessary.
- 23.14. In the testing of the contingency liquidity plan, a credit institution shall pay special attention to the following factors:
- 1) relevance and comprehensibility of the division of tasks and responsibilities;
 - 2) relevance of the contact data;
 - 3) transferability of liquid assets between different units and jurisdictions, and availability of the relevant legal and operational documentation.
- 23.15. A contingency liquidity plan shall be made available to all key units of the credit institution.
- 23.16. A contingency liquidity plan shall be made available to all staff members of the credit institution, who have been assigned the duties and responsibilities related to the implementation of the contingency liquidity plan.

24. Entry into force of the guidelines

These guidelines shall enter into force on 1 January 2014.