



# **BASEL III: LIQUIDITY STANDARDS**

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**BANKING POLICY & REGULATIONS DEPARTMENT  
STATE BANK OF PAKISTAN**

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## 1. Introduction – Basel III Liquidity Standards

- In response to the global financial crises, the Basel Committee on Banking Supervision (BCBS) has introduced two liquidity standards under its Basel III reforms i.e. Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR).
- These two minimum standards aim to achieve two separate but complementary objectives. The objective of LCR is to promote the short-term resilience of the liquidity risk profile of banks by ensuring that they have an adequate stock of unencumbered high-quality liquid assets (HQLA) to survive a significant stress scenario lasting for 30 calendar days. [Part-1](#) of the document is focused on the calculation of this measure (LCR) and its disclosure in the financial statements.
- The objective of second liquidity standard i.e. NSFR is to reduce funding risk over a longer time horizon by requiring banks to fund their activities with sufficiently stable sources of funding on an ongoing basis. The details regarding NSFR are covered in [Part-2](#) of this document.
- Additionally, BCBS has supplemented the liquidity standards with the set of five monitoring tools for monitoring the liquidity risk exposures of banks. These monitoring tools include (1) Contractual maturity mismatch; (2) Concentration of funding; (3) Available unencumbered assets; (4) LCR by significant currency; and (5) market related monitoring tools. Accordingly, [Part-3](#) of the document provides details on supplementary tools for ongoing monitoring of the liquidity risk exposures.

As part of Basel III implementation in Pakistan, SBP intends to implement above mentioned standards & monitoring tools from 2017 broadly in line with the BCBS timelines.

## Part 1: The Liquidity Coverage Ratio (LCR)

### 1. Scope of Application

- 1.1. The Liquidity Coverage Ratio (LCR) is a quantitative requirement which aims to ensure that a bank maintains an adequate level of unencumbered high quality liquid assets which can easily be converted into cash at little or no loss of value in private markets, to withstand an acute liquidity stress scenario over a 30-day horizon at both the entity and consolidated level.
- 1.2. Primarily, the LCR (Part 1) and monitoring tools requirements (Part-3) would be applicable for all banks on standalone level including overseas branch operations. However, after full implementation of LCR in Dec 2018, banks shall be encouraged to meet the LCR framework at consolidated level.
- 1.3. For foreign banks' branches, the LCR framework would be applied on their Pakistan operations.
- 1.4. When calculating the LCR, a bank shall apply the rules and parameters as specified in this document to its local as well as overseas operations, except for foreign operations in a jurisdiction which has implemented the Basel III LCR. In such cases, a bank shall apply the host jurisdiction's parameters to their operations in the following areas when calculating its LCR:
  - i. Run-off rate of insured retail and small business deposits;
  - ii. Eligible assets recognized by the host jurisdiction as prescribed under the BCBS Basel III LCR rules.
- 1.5. While the LCR is expected to be met and reported in a Pak Rupees, banks must also estimate their liquidity needs in each currency and maintain high quality liquid assets (HQLA) consistent with the distribution of their liquidity needs by currency, however no minimum requirement has been prescribed.
- 1.6. The LCR measure would further be supplemented by detailed assessments of other aspects of the bank's liquidity risk management framework in line with the use of the monitoring tools included in Part-3 of these instructions.

### A. Transitional Arrangements

- 1.7. A bank shall hold, at all times, an adequate stock of HQLA such that it maintains a minimum of the following LCR levels in accordance with the timeline below.

	March 31, 2017	December 31, 2017	December 31, 2018
Minimum LCR	80%	90%	100%

- 1.8. By the end of the transition period, all banks will be required to maintain the LCR at 100% on an on-going basis.
- 1.9. SBP may, however, require any bank to adopt more stringent standards or parameters, based on the assessment of bank's systemic importance, its liquidity risk management framework and liquidity risk profile.



## B. Reporting Requirements

- 1.10. Banks are required to submit their LCR statements on monthly frequency to SBP.
- 1.11. The return is required to be submitted within fourteen (14) working days from the close of the calendar month.

## C. Notification Requirement

- 1.12. In periods of stress, banks may be allowed to use their stock of HQLA which may result in a LCR of below 100%. In such circumstances, Banks should immediately report to SBP (Offsite Supervision & Enforcement Department with a copy endorsed to Banking Policy and Regulation Department) with an explanation of the following:
  - Factors leading to non-compliance;
  - Measures which will be taken to restore the LCR position including Contingency Funding Plan; and
  - Magnitude and expected duration of the LCR remaining below the minimum prescribed level.
- 1.13. Based on an assessment of the bank- and market-specific factors, the State Bank shall provide exemption from meeting the minimum level of the HQLA stock. SBP may further impose any penalty/ condition or specific actions to be taken by the bank to reduce its exposures to liquidity risk.

## 2. Definition of the LCR

- 2.1. With effect from Dec 31, 2018 (i.e. after the phase-in arrangements are complete), the LCR requirement shall be 100% for banks. The LCR is to be calculated in the following manner:

$\frac{\text{Stock of High Quality Liquid Assets (HQLA)}}{\text{Total net cash outflows over the next 30 calendar days}} \geq 100\%$
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- 2.2. The LCR has two components:
  - a. Value of the stock of HQLA in stressed conditions; and
  - b. Total net cash outflows, calculated according to the stress scenario for which a bank would need sufficient liquidity on hand to survive for up to 30 days.
- 2.3. A bank should actively manage its intraday liquidity positions and risks to meet payment and settlement obligations on a timely basis under both normal and stressed conditions and thus contribute to the smooth functioning of payment and settlement systems. Banks should be aware that the LCR is calculated based on a stress scenario which does not cover expected or unexpected intraday liquidity needs.
- 2.4. The format of Basel III liquidity return (to be submitted monthly) is given in [section 5](#) of this document.

## 3. Stock of High Quality Liquid Assets (HQLA) – the numerator of LCR

- 3.1. The numerator of the LCR is the “Stock of High Quality Liquid Assets (HQLA)”. Assets are considered to be high quality liquid assets if they can be readily sold or used as collateral to obtain funds at little or no loss of value under the stress scenario.

- 3.2. The LCR standard prescribes that a bank must hold stock of unencumbered HQLA (without legal, regulatory or operational impediments) to cover the total net cash outflows over a 30-day period.
- 3.3. In order to qualify as HQLA, assets should be liquid in private markets during a time of stress and ideally be central bank eligible for intraday liquidity needs and overnight liquidity facilities. In case of Pakistan, the central bank eligibility is limited to extremely narrow list of assets; therefore SBP has allowed non-central bank eligible assets as level 2B (defined below) that meet the qualifying criteria.
- 3.4. Based on the price volatility and other factors, eligible stock of HQLA is categorized into level 1 and level 2 assets with further subdivision of Level 2 assets into level 2A and level 2B assets subject to the following limits:

Asset	Limit
Level 1	No Limit
Level 2A & 2B	In aggregate, up to 40% of the stock of HQLA held
Level 2B	Up to 15% of the stock of HQLA held

- 3.5. Assets to be included in each category must be those that the bank is holding on the first day of the stress period (i.e. LCR reporting date), irrespective of their residual maturity.
- 3.6. The 40% cap on Level 2 assets and the 15% cap on Level 2B assets should be determined after the application of required haircuts and after taking into account the unwinding of short term secured funding, secured lending (e.g. securities financing transactions) and collateral swap transactions maturing within 30 calendar days that involve the exchange of HQLA. In this context, short term transactions are transactions with a maturity date up to and including 30 calendar days.
- 3.7. Accordingly, the calculations of the stock of HQLA require computation of adjusted Level 1 and Level 2 assets by reversing the transactions maturing within 30 days. Adjusted level 1 assets are, therefore, calculated by adding back the amount of cash lent (e.g. under reverse repo) and by subtracting the amount of cash borrowed (e.g. repo of govt. paper) up to 30 days. The similar process is to be repeated to arrive at adjusted level 2A and 2B assets.
- 3.8. The details of the calculation methodology pertaining to CAP on level 2 assets are provided at [Annexure - A](#). The formula for the calculation of the stock of HQLA is as follows:

$$\text{Stock of HQLA} = \text{Level1} + \text{Level2A} + \text{Level2B} - \text{adjustment for 15\% cap} - \text{adjustment for 40\% cap}$$

- 3.9. The fundamental characteristic of HQLA include: low credit & market risk, ease & certainty of valuation, low correlation with risky assets etc. The market related characteristics include: active and sizable private market, presence of committed market markers, low volatility and flight to quality. Detailed characteristics of HQLA assets have been provided as [Annexure – B](#).
- 3.10. All assets in the stock of HQLA are subject to operational requirements mentioned at [Annexure – C](#). The purpose of operational requirements is to recognize that not all assets outlined under level 1 and level 2 that meet the asset class, risk weighting and credit rating criteria should be eligible for inclusion in the stock of HQLA as other

operational restrictions that can prevent timely monetization of such assets during a stress period.

- 3.11. While the LCR is expected to be met and reported in a single currency, banks are expected to be able to meet their liquidity needs in each currency and maintain HQLA consistent with the distribution of their liquidity needs by currency. The bank should be able to use the stock to generate liquidity in the currency and jurisdiction in which the net cash outflows arise. In managing foreign exchange liquidity risk, the bank should take into account the risk that its ability to swap currencies and access the relevant foreign exchange markets may erode rapidly under stressed conditions. It should be aware that sudden, adverse exchange rate movements can sharply widen existing mismatched positions and alter the effectiveness of any foreign exchange hedges in place.
- 3.12. In order to mitigate cliff effects that could arise, if an eligible liquid asset became ineligible (e.g. due to rating downgrade), a bank is permitted to keep such assets in its stock of liquid assets for an additional 30 calendar days (from the date of LCR reporting i.e. if an asset becomes ineligible for inclusion in HQLA in January, a bank may include it as HQLA for calculating the LCR for February only).
- 3.13. The stock of HQLA should be well diversified within the assets classes themselves (except for sovereign debt of the bank's home jurisdiction). Banks should have policies in place in order to avoid concentration with respect to asset types, issue and issuer types and currency within assets classes.

#### A. Level 1 assets

- 3.14. Level 1 assets of bank<sup>1</sup> would comprise of the following assets<sup>2</sup> which can be included in the stock of liquid assets at 100 percent of their market value.
  - i. Cash & treasury balances (including balances held with SBP);
  - ii. Unencumbered investments in Pakistan Government securities (e.g. Treasury bills, Pakistan investment bonds etc.) – excluding Held to Maturity (HTM) instruments;
  - iii. Government of Pakistan Ijara Sukuks;
  - iv. Marketable securities representing claims on or guaranteed by sovereigns, central banks, PSEs, or multilateral development banks<sup>3</sup> that satisfy all of the following conditions:
    - assigned a 0% risk-weight under the Basel II Standardized Approach for credit risk;

<sup>1</sup> Assigned Capital held under section 13 (2) of BCO by foreign bank branches is not eligible for level 1 HQLA

<sup>2</sup> A security may not be included in HQLA by virtue of it being eligible for Statutory Liquidity Reserve (SLR) requirement of the SBP. A Bank will have to ensure that the security complies with the eligibility criteria stipulated in this document.

<sup>3</sup> The Bank for International settlements, the International Monetary fund, the European Central Bank or European Community, The World Bank Group comprised of the International Bank for Reconstruction and Development (IBRD) and the International Finance Corporation (IFC), the Asian Development Bank (ADB), the African Development Bank (AfDB), the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IADB), the European Investment Bank (EIB), the European Investment Fund (EIF), the Nordic Investment Bank (NIB), the Caribbean Development Bank (CDB), the Islamic Development Bank (IDB), and the Council of Europe Development Bank (CEDB)

- traded in large, deep and active repo or cash markets characterized by a low level of concentration;
  - have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions; and
  - Not an obligation of any bank/ financial institution, NBFC or any of its affiliated entities.
- v. Where the sovereign has a non-0% risk weight, sovereign or central bank debt securities issued in domestic currencies by the sovereign or central bank in the country in which the liquidity risk is being taken or bank's home country<sup>4</sup>; and
- vi. Where the sovereign has a non-0% risk weight, domestic sovereign or central bank debt securities issued in foreign currencies are eligible up to the amount of the bank's stressed net cash outflows in that specific foreign currency stemming from the bank's operations in the jurisdiction where the bank's liquidity risk is being taken<sup>5</sup>.

## B. Level 2 assets

3.15. Level 2 assets (Level 2A and Level 2B) can comprise up to 40% of the overall HQLA stock after haircuts have been applied. Within level 2 assets, level 2B assets should not comprise of more than 15% of the total stock of HQLA.

### Level 2A assets

3.16. A 15% haircut is applied to the current market value of Level 2A asset held in the stock of HQLA. Level 2A assets are limited to the following:

- i. Marketable securities representing claims on Public sector Entities (PSEs), foreign sovereigns or multilateral development banks that are assigned a 20% risk weight under Basel II standardized approach for credit risk and satisfy all of the following conditions:
- Traded in large, deep and active repo or cash markets characterized by a low level of concentration;
  - Have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions;
  - Not an obligation of a bank, financial institution, NBFC or any of its affiliated entities;
  - Maximum decline of price not exceeding 10% during a 30-day period of significant liquidity stress.

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<sup>4</sup>For example, Bangladesh Government Securities held by Pakistani bank (where bank is operating in form of subsidiary or branch mode) with operations in Bangladesh.

<sup>5</sup>For example, bonds or sukuk issued by the Government of Pakistan denominated in USD. Further, the amount of non-0% risk-weighted sovereign/central bank debt issued in foreign currencies included in Level 1 assets is strictly limited to the foreign currency exposure in the jurisdiction of the issuing sovereign/central bank.

## Level 2B assets

- 3.17. Level 2B assets are limited to the following assets for the purpose of LCR. Banks need to establish appropriate systems and measures to monitor and control the potential risks (e.g. credit and market risks) that banks may be exposed to in holding these assets.
- i. Corporate debt securities (e.g. TFCs, Sukuks & commercial papers) that satisfy the following conditions,
    - Not issued by a financial institution or any of its affiliated entities;
    - Traded in large, deep and active repo or cash markets characterized by a low level of concentration;
    - Have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions.
    - Maximum decline of price not exceeding 10% during a 30-day period of significant liquidity stress.
    - a. subject to 15% haircut, where the securities have a long-term credit rating of at least AA- or a short term equivalent rating by a recognized ECAI;
    - b. subject to 50% haircut, where the securities have a long-term credit rating of at least A+ to BBB- or a short term equivalent rating by a recognized ECAI;
  - ii. Common equity shares that satisfy all of the following conditions subject to 50% haircut:
    - Not issued by a financial institution or any of its affiliated entities
    - Exchange traded and centrally cleared
    - A constituent of the Pakistan stock exchange's KSE-100 index or main index of jurisdiction where the liquidity risk is taken<sup>6</sup>
    - Denominated in PKR or in the currency of the jurisdiction where a bank's liquidity risk is taken
    - Traded in large, deep and active repo or cash markets characterized by a low level of concentration
    - Have a proven record as a reliable source of liquidity in the markets (repo or sale) even during stressed market conditions i.e. a maximum decline of share price not exceeding 40% over a 30-day period of significant liquidity stress.

## 4. Total net cash outflows – the denominator of LCR

- 4.1. The term “total net cash outflows<sup>7</sup>” is defined as the total expected cash outflows minus total expected cash inflows in the stress scenario for the subsequent 30 calendar days.

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<sup>6</sup> For exposure by a bank's operations in foreign jurisdiction (where the liquidity risk is being taken) equity shares will only be included as allowed under local LCR requirements in that jurisdiction. If the jurisdiction has not adopted the LCR regime, inclusion of equity shares won't be allowed for LCR calculation purposes.

<sup>7</sup> Where applicable, cash inflows and outflows should include interest that is expected to be received and paid during the 30-day time horizon.

- 4.2. Under the scenario, total expected cash outflows are calculated by multiplying the outstanding balances of various categories or types of liabilities and off-balance sheet commitments by the rates at which they are expected to run off or be drawn down.
- 4.3. Total expected cash inflows are calculated by multiplying the outstanding balances of various categories of contractual receivables by the rates at which they are expected to flow in (under the stress scenario) up to an aggregate cap of 75% of total expected cash outflows.

Total net cash outflows over the next 30 calendar days = Total expected cash outflows –  
Min {total expected cash inflows; 75% of total expected cash outflows}

- 4.4. Bank shall not be permitted to double count items, i.e. if an asset is included in the “stock of HQLA” (i.e. the numerator), the associated cash inflows cannot also be counted as cash inflows (i.e. part of the denominator).
- 4.5. Where there is potential that an item could be counted in multiple outflow categories, the bank should apply the maximum run-off rate to capture the contractual outflow for that item.

## Cash Outflows

### (i) Retail deposit run-off

- 4.6. Retail deposits are defined as deposits placed with a bank by a natural person. Deposits from legal entities, sole proprietorships or partnerships are captured in wholesale deposit categories. Retail deposits subject to LCR include all retail demand deposits and all retail term deposits, whether denominated in PKR or any other currencies.
- 4.7. Cash outflows related to retail term deposits with a residual maturity or withdrawal notice period of greater than 30 days will be excluded from total expected cash outflows if the depositor has no legal right to withdraw deposits within the 30-day horizon of the LCR, or if early withdrawal results in a significant penalty that is materially greater than the loss of interest. In case of Pakistan, generally the term deposits do not fulfill these conditions; hence the entire category of term deposits is to be treated as demand deposits for the purpose of LCR.
- 4.8. For deposits that are contractually pledged to a bank as collateral to secure a credit facility or loan granted by the bank that will not mature or be settled in the next 30 days, the pledged deposit may be excluded from the LCR calculation only if the following conditions are met:
- The loan will not mature or be settled in the next 30 days;
  - The pledge arrangement is subject to a legally enforceable contract disallowing withdrawal of the deposit before the loan is fully settled or repaid; and

- The amount of deposit to be excluded cannot exceed the outstanding balance of the loan (which may be the drawn portion of a credit facility).
- 4.9. The above treatment does not apply to a deposit which is pledged against an undrawn facility, in which case the higher of the outflow rate applicable to the undrawn facility or the pledged deposit applies.
- 4.10. The retail deposits are divided into “stable” and “less stable” portions of funds as described below, with minimum run-off rates listed for each category.

**Stable retail deposits (run-off rate = 5%)**

- 4.11. Stable retail deposits are the amount of the retail deposits that are fully insured by an effective deposit insurance scheme (up to the maximum coverage limit) or by a public guarantee that provides equivalent protection; and fulfils either one of the following conditions:
- the deposits are in transactional accounts (e.g. accounts where salaries are automatically deposited); or
  - The depositors have other established relationships with the bank that make deposit withdrawal highly unlikely (e.g. a loan whereby depositor is contractually bound to maintain relationship with the bank).

**Less stable deposits (run-off rate = 10%)**

- 4.12. All retail deposits that do not fulfill the conditions of stable deposits are to be considered as less stable deposits. These retail deposits shall also include any amounts in excess of the maximum coverage limit by the deposit insurance scheme. In case a bank is not able to readily identify/ bifurcate retail deposits into stable or less stable according to the above definition, it should place the full amount in the “less stable” category.

**(ii) Unsecured wholesale funding run-off**

- 4.13. For the purposes of the LCR, "unsecured wholesale funding" is defined as those deposits, liabilities and general obligations that are raised from non-natural persons (i.e. legal entities, including sole proprietorships and partnerships) and are not collateralized by legal rights to specifically designated assets owned by the borrowing institution in the case of bankruptcy, insolvency, liquidation or resolution. Obligations related to derivative contracts are explicitly excluded from this definition.
- 4.14. The wholesale funding includes:
- a. All liabilities (such as maturing term deposits and unsecured debt securities) which are expected to be fulfilled by the bank within the LCR's horizon of 30 days, notwithstanding its contractual maturity;
  - b. All funding that is callable (either at the investor's discretion or the bank's discretion) or has contractual maturity within the next 30 calendar day horizon.
  - c. Funding with an undetermined maturity.
- 4.15. Wholesale funding which is callable by the fund provider subject to a contractually defined and binding notice surpassing the 30 day horizon is not included.

4.16. For the purpose of LCR, a bank shall divide its unsecured wholesale funding based on the:

- i. Profile of the funds provider (i.e. small business customers, non-financial corporates, sovereigns, central banks, multilateral development banks, PSEs and other legal entity customers).
- ii. Operational relationship with the bank

**a) Unsecured wholesale funding provided by small business customers (run-off rate = 5% and 10%)**

4.17. Unsecured wholesale funding provided by small business customers is treated the same way as retail deposits for the purposes of this standard, effectively distinguishing between "stable" (run-off rate = 5%) and "less stable" (run-off rate = 10%) portions of funding provided by small business customers. The same bucket definitions and associated run-off factors apply as for retail deposits. Small business customers are defined as follows:

- Where the bank has credit exposure on small business customers:

The definition of retail exposure as given under SBP Basel II instructions (amended vide BSD Circular No. 05 of February 14, 2008) shall be applicable provided the total aggregate funding<sup>8</sup> raised from one small business customer is less than Rs. 75 million (on consolidated basis where applicable).

- Where the bank does not have any exposure on a small business customer:

The bank may include such a deposit in this category provided that the total aggregate funding raised from the customer is less than Rs. 100 million (on a consolidated basis where applicable) and the deposit is managed as a retail deposit.

4.18. Term deposits from small business customers should be treated in accordance with the treatment for term retail deposits as outlined previously in this document.

**b) Operational deposits generated by clearing, custody and cash management activities (Run-off rate = 25%)**

4.19. Certain activities lead to financial and non-financial customers needing to place deposits with a bank in order to facilitate their access and ability to use payment and settlement systems and otherwise make payments. These funds may receive a 25% run-off factor only if the customer has a substantive dependency with the institution and the deposit is required for such activities.

4.20. Qualifying activities in this context refer to clearing, custody or cash management activities where the customer is reliant on the bank to perform these services. In order to qualify for 25% run-off factor, the detailed criteria for the qualifying operational deposits/ activities are given at [Annexure – D](#).

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<sup>8</sup> "Aggregate funding" means the gross amount (i.e. not netting any form of credit extended to the legal entity) of all forms of funding (e.g. deposits or debt securities for which the counterparty is known to be a small business customer). In addition, applying the limit on a consolidated basis means that where one or more small business customers are affiliated with each other, they may be considered as a single creditor such that the limit is applied to the total funding received by the bank from this group of customers.



- 4.21. Any excess balances that could be withdrawn without jeopardizing these clearing, custody or cash management activities do not qualify as operational deposits. Correspondent Banking arrangements (e.g. deposit held in vostro accounts) would be treated as non-operational deposits.
- 4.22. The portion of qualifying operational deposit which is fully covered under the deposit protection fund can be treated as “stable retail deposit”.

**c) Unsecured wholesale funding provided by non-financial corporate customers, sovereigns, central banks, multilateral development banks and PSEs (excluding deposits specifically held for operational purpose) - Run-off rate = 40%**

- 4.23. This category comprises all deposits and other extensions of unsecured funding from non-financial corporate customers (that are not categorized as small business customers) and (both domestic and foreign) sovereign, central bank, multilateral development bank, and PSE customers that are not specifically held for operational purposes (as defined above). The run-off factor for these funds is 40%.

**d) Unsecured wholesale funding provided by other legal entity customers: (Run-off rate = 100%)**

- 4.24. This category consists of all deposits and other funding from other institutions (including banks, securities firms, insurance companies, etc), fiduciaries<sup>9</sup>, beneficiaries<sup>10</sup>, conduits and special purpose vehicles, affiliated entities of the bank and other entities that are not specifically held for operational purposes (as defined above) and not included in the prior mentioned categories. The run-off factor for these funds is 100%.
- 4.25. All notes, bonds and other debt securities issued by the bank are included in this category regardless of the holder, unless the bond is sold exclusively in the retail market and held in retail accounts (including small business customer accounts treated as retail), in which case the instruments can be treated in the appropriate retail or small business customer deposit category.

**(iii) Secured wholesale funding run-off**

- 4.26. For the purposes of this standard, “secured funding” is defined as those liabilities and general obligations that are collateralized by legal rights to specifically designated assets owned by the borrowing institution in the case of bankruptcy, insolvency, liquidation or resolution. For calculating the cash outflow it will only include outstanding secured funding transaction with maturities within 30 calendar day stress horizon.
- 4.27. **Loss of secured funding on short-term financing transactions:** In stress scenario, the ability to continue to transact repurchase, reverse repurchase, collateral swaps and other securities financing transactions is limited to transactions backed by HQLA or

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<sup>9</sup> Fiduciary is a legal entity that is authorized to manage assets on behalf of a third party. Fiduciaries include asset management entities such as pension funds and other collective investment vehicles.

<sup>10</sup> Beneficiary is a legal entity that receives, or may become eligible to receive, benefits under a will, insurance policy, retirement plan, annuity, trust, or other contract.

with the bank's domestic central bank. Additionally, collateral lent to the bank's customers<sup>11</sup> to affect short positions should be treated as a form of secured funding.

A bank shall apply the following factors to all outstanding secured funding transactions with maturities within the 30 calendar day stress horizon, including customer short positions that do not have a specified contractual maturity. The amount of outflow is calculated based on the amount of funds raised through the transaction, and not the value of the underlying collateral.

<b>Categories for Outstanding maturing secured funding transactions</b>	<b>Run off rate for Cash Outflows</b>
<ul style="list-style-type: none"> <li>• Backed by level 1 assets or with central banks</li> </ul>	0%
<ul style="list-style-type: none"> <li>• Backed by Level 2A assets</li> </ul>	15%
<ul style="list-style-type: none"> <li>• Secured funding transactions backed by non-Level 1 or non-level 2 assets, with domestic sovereigns, multilateral development banks, or domestic PSEs as counterparty that have a 20% or lower risk weight</li> </ul>	25%
<ul style="list-style-type: none"> <li>• Backed by Level 2B assets</li> </ul>	50%
<ul style="list-style-type: none"> <li>• All others</li> </ul>	100%

#### **(iv) Additional requirements (Other On & Off-Balance Sheet items)**

##### **a) Drawdown from Committed Credit & Liquidity facilities**

4.28. For the purpose of this standard, credit and liquidity facilities are defined as explicit contractual agreements or obligations to extend funds at a future date to retail or wholesale counterparties. These facilities only include contractually irrevocable ("committed") or conditionally revocable (e.g. a precondition of a material change in the credit condition of the borrower) agreements to extend funds in the future<sup>12</sup>. Moreover, it is assumed that in a stressed environment, the customers drawing these facilities will not be able to pay back the outstanding within 30 days regardless of maturity.

##### **4.29. Credit facilities:**

A credit facility shall refer to any contractually irrevocable or conditionally revocable agreements to extend funds in the future (unscheduled draws in the future). General working capital facilities for corporate entities (e.g. revolving credit facilities in place for general corporate or working capital purposes) will not be classified as liquidity facilities, but as credit facilities.

A bank shall apply the following drawdown rates on the undrawn portion of the committed credit facilities:

<sup>11</sup> Typically, such a transaction is conducted to enable a bank's customers to cover their short positions. A customer short position in this context describes a transaction where a bank's customer sells a security it does not own, and the bank subsequently obtains the same security from internal or external sources to make delivery into the sale. Internal sources include the bank's own inventory of collateral as well as re-hypothecatable collateral held in other customer margin accounts. External sources include collateral obtained through a securities borrowing, reverse repo, or like transactions

<sup>12</sup> Excluding unconditionally revocable and unconditionally cancellable facilities, which are covered under "Contingent Funding Obligations"

<b>Counterparty</b>	<b>Drawdown rate of credit facility (% of undrawn portion)</b>
Retail and small business customers	5%
Non-financial corporate, sovereigns and central banks, PSEs and multilateral development banks	10%
Banks subject to prudential supervision	40%
Other financial institutions including securities firms, insurance companies, fiduciaries and beneficiaries	40%
Other legal entities (including SPEs, conduits and special purpose vehicles, and other entities not included in the prior categories)	100%

In case the counterparty has already posted HQLA to secure the facility or the posting of collateral (in the form of HQLA) is contractually required for the counterparty to draw down the facility, the bank shall calculate the undrawn portion of such facilities net of any HQLA posted, if the bank is legally entitled and operationally capable to re-use the collateral in new cash raising transactions once the facility is drawn, and there is no undue correlation between the probability of drawing the facility and the market value of the collateral. The collateral shall be netted against the undrawn portion of the facility only if the collateral is not already counted in the stock of HQLA to avoid double counting.

#### 4.30. **Liquidity facilities:**

A liquidity facility is defined as any committed, undrawn back-up facility that would be utilized to refinance the debt obligations of a customer in situations where such a customer is unable to rollover that debt in financial markets (e.g. pursuant to a commercial paper program, secured financing transactions, obligations to redeem units, etc). This shall include facilities provided to hedge funds, money market funds and special purpose funding vehicles, for example SPEs or conduits, or other vehicles used to finance the banks own assets, should be captured in their entirety as a liquidity facility to other legal entities.

The portion of a liquidity facility that is backing debt that does not mature within the 30-day window is excluded from the scope of the definition of a liquidity facility.

The amount of the commitment to be treated as a liquidity facility is the amount of the currently outstanding debt issued by the customer (or proportionate share, if a syndicated facility) maturing within a 30 day period that is backstopped by the facility. To calculate the expected cash outflows from the liquidity facility, a bank shall multiply this amount of outstanding debt issued with the following drawdown rates:

<b>Counterparty</b>	<b>Drawdown rate of credit facility (% of undrawn portion)</b>
Retail and small business customers	5%
Non-financial corporate, sovereigns and central banks, PSEs and multilateral development banks	30%
Banks subject to prudential supervision	40%
Other financial institutions including securities firms, insurance companies, fiduciaries and beneficiaries	100%
Other legal entities (including SPEs, conduits and special purpose vehicles, and other entities not included in the prior categories)	100%

**b) Contingent Funding Obligations:**

- 4.31. For calculating LCR, a bank shall calculate the expected cash outflows for liquidity calls arising from contingent funding obligations<sup>13</sup> as per the following outflow rates (at national discretion @ 5%). However, going forward bank needs to estimate historical behavior to accurately determine appropriate outflow.

<b>Category</b>	<b>Outflow rate</b>
Unconditionally revocable (uncommitted) credit and liquidity facilities	0%
Contingent funding obligation related to trade finance (e.g. documentary trade LCs, documentary and clean collection, import/export bills, guarantees related to trade finance obligations)	5% of trade finance obligations
Guarantees and letter of credit unrelated to trade finance obligations	5% of the obligation amount
Non-contractual contingent funding obligation related to potential liquidity draws from subsidiaries, minority investments in entities, joint ventures (which are not consolidated and where there is expectation that the bank will be the main liquidity provider when the entity is in need to liquidity)	5% of investment value
<ul style="list-style-type: none"> <li>• Potential requests for debt repurchases of the bank's own debt, or</li> <li>• outstanding debt securities having maturity greater than 30 calendar days whereby the bank or its affiliate is a dealer or marker maker</li> </ul>	5% of the total outstanding amount
Non contractual obligations where bank has internally matched customer short positions by other customer's collateral, where the collateral does not qualify as Level 1 or Level 2 assets and the bank may be obligated to find additional sources of funding for these positions in the event of client withdrawals	50% of the collateral amount used to cover customer's short position
Any other contingent funding obligation (not covered above)	5% of the total outstanding amount

**c) Derivatives Cash outflows**

- 4.32. The sum of all net cash outflows should receive a 100% factor. Banks should calculate, in accordance with their existing valuation methodologies, expected contractual derivative cash inflows and outflows. Cash flows may be calculated on a net basis (i.e. inflows can offset outflows) by counterparty, only where a valid master netting agreement exists. Banks should exclude from such calculations those liquidity requirements that would result from increased collateral needs due to market value movements or falls in value of collateral posted. Options should be assumed to be exercised when they are 'in the money' to the option buyer.
- 4.33. Cash flows arising from foreign exchange derivative transactions that involve a full exchange of principal amounts on a simultaneous basis (or within the same day) may be reflected in the LCR as a net cash flow figure.
- 4.34. Where derivative payments are collateralized by HQLA, cash outflows should be calculated net of any corresponding cash or collateral inflows that would result i.e. if the bank is legally entitled and operationally capable to re-use the collateral in new cash raising transactions once the collateral is received. Where the corresponding cash or collateral inflow has been received, the bank should only include the asset either as part of its stock of HQLA or by netting the amount against its expected derivative cash flows to ensure that there is no double-counting of liquidity inflows and outflows.

<sup>13</sup> Lending commitments such as import or export facilities are excluded from this treatment and bank shall apply draw-down rates specified in section "Drawdown from committed facilities".

**Collateral Outflows:**

- 4.35. A bank shall include all contractually due or potential collateral outflows in the calculation of its expected cash outflows based on the contractual triggers and outflow rates as mentioned below:
- 4.36. **Increased liquidity needs related to downgrade triggers embedded in financing transactions, derivatives and other contracts:**  
Often, contracts governing derivatives and other transactions have clauses that require the posting of additional collateral, drawdown of contingent facilities, or early repayment of existing liabilities upon the bank's downgrade by a recognized credit rating organization. Where such downgrade triggers exist, a bank shall include 100% of additional collateral or cash that would be posted, in the calculation of total expected cash outflows for any downgrade up to and including a 3-notch downgrade of the bank's long-term credit rating
- 4.37. **Increased liquidity needs related to the potential for valuation changes on posted collateral securing derivative and other transactions:**  
Most counterparties to derivatives transactions typically are required to secure the mark-to-market valuation of their positions and that this is predominantly done using Level 1 liquid asset securities like cash or govt. securities etc. When these Level 1 asset securities are posted as collateral the framework does not require that an additional stock of HQLA be maintained for potential valuation changes. However, if counterparties are securing mark-to-market exposures with other forms of collaterals, to cover the potential loss of market value on such non-Level-1 HQLA collaterals, then such collaterals are to be treated as cash outflow and a run off rate of 20% will be applied. This 20% will be calculated based on the notional amount required to be posted as collateral after applying haircuts applicable to the collateral category, and net of collateral received (provided that such collateral received is not subject to restrictions on reuse/ re-hypothecation).
- 4.38. **Increased liquidity needs related to excess non-segregated collateral held by the bank that could contractually be called at any time by the counterparty:**  
Where a bank holds non-segregated collateral in excess of the counterparty's current collateral requirements and the collateral can be contractually called at any time by the counterparty, the bank shall include 100% of the excess non-segregated collateral in the calculation of total expected cash outflows.
- 4.39. **Increased liquidity needs related to contractually required collateral on transactions for which the counterparty has not yet demanded the collateral be posted:**  
A bank shall include 100% of the value of any collateral which is contractually due to a counterparty in the calculation of total expected cash outflows, even if the counterparty has not yet demanded the collateral to be posted.
- 4.40. **Increased liquidity needs related to contracts that allow collateral substitution to non-HQLA assets or Lower Quality HQLAs:**  
In cases where a bank enters into a contract which allows collateral received to be substituted to non-HQLA assets without the bank's consent, the bank shall include 100% of the collateral amount received in the calculation of total expected cash outflows if the collateral received is not segregated and can be used to secure another transaction.

If HQLA collateral (eg Level 1 assets) may be substituted for other HQLA collateral (eg Level 2A assets), an outflow amounting to the market value of the received collateral multiplied by the difference between the haircuts of the received collateral and the potential substitute collateral should be applied. If the substituted collateral can be of different liquidity value in the LCR, the bank should assume that the potential substitute collateral with the lowest liquidity value will be posted.

**4.41. Increased liquidity needs related to market valuation changes on derivative or other transactions:**

As market practice requires collateralization of mark-to-market exposures on derivative and other transactions, banks face potentially substantial liquidity risk exposures to these valuation changes. Inflows and outflows of transactions executed under the same master netting agreement can be treated on a net basis. Any outflow generated by increased needs related to market valuation changes should be included in the LCR calculated by identifying the largest absolute net 30-day collateral flow<sup>14</sup> realized during the preceding 24 months. The absolute net collateral flow is based on both realized outflows and inflows.

**4.42. Loss of funding from asset-backed commercial paper, securities investment vehicles and other such financing facilities:**

Banks having structured financing facilities that include the issuance of short-term debt instruments, such as asset backed commercial paper, should fully consider the potential liquidity risk arising from these structures. These risks include, but are not limited to:

- a. The inability to refinance maturing debt - Bank shall include 100% of the amount of the structured finance instrument maturing within the next 30 calendar days in its expected cash outflows.
- b. The existence of derivatives or derivative-like components - which may allow the “return” of assets to a bank or require the bank (asset originator) to provide liquidity are contractually written into the documentation associated with the structured financing facility, the bank shall include 100% of the amount of assets that could potentially be returned, or the liquidity required, in its expected cash outflows.

In applying the requirements set out in paragraphs (a) and (b) above, a bank shall look through to the maturity of the debt instruments issued by a SPV (such as a special purpose vehicle, conduit or structured investment vehicle - SIV) and any embedded options in financing arrangements that may potentially trigger the “return” of assets or the need for liquidity, irrespective of whether the SPV issuing the structured finance instrument is consolidated.

**d) Other contractual Cash flows**

- 4.43.** Any contractual lending obligations/ contractual cash outflows (e.g. dividends or contractual interest payments etc.) within the next 30 calendar days, not captured elsewhere in this document, shall be assigned a 100% outflow rate. Outflows related to operating costs, however, are not included in this standard.

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<sup>14</sup> The largest absolute net 30-day collateral flow is the largest aggregated cumulative net collateral outflow or inflow at the end of all 30-day periods during the preceding 24 months. For this purpose, bank have to consider all 30-day periods during the preceding 24 months.

## Cash Inflows

- 4.44. The Cash inflows are capped at 75% of total expected cash outflows as per this standard.
- 4.45. When considering available cash inflows, the bank should only include contractual inflows (including interest payments) from outstanding exposures that are fully performing and for which the bank has no reason to expect a default within the 30-day time horizon. Further, inflows should only be taken at the latest possible date, based on the contractual rights available to counterparties. Contingent inflows are not included in total expected cash inflows.

### a) Loans and other credit facilities

- 4.46. For all fully performing loans & other credit facilities, either secured or unsecured, the inflow rate shall be determined by counterparty, as follows:

Counterparty	Inflow Rate
Retail and small business customers	50%
Non-financial corporate, sovereigns, multilateral development banks, and PSEs	50%
Financial Institutions <sup>15</sup> & central banks	100%

- 4.47. For revolving credit facilities (including Running Finance), the bank shall assume that existing loan is rolled over and no principal payment is received. However, minimum payments of principal, fee or interest associated with such loans, provided that such payments are contractually due within 30 days may be captured as inflows at the rates prescribed above.

### b) Secured lending, including reverse repos and securities borrowing

- 4.48. A bank shall assume that maturing reverse repurchase, securities borrowing or collateral swap transactions will be rolled over and will not give rise to any cash inflows (zero per cent). Maturing reverse repurchase or securities lending agreements secured by Level 2 HQLA will lead to cash inflows equivalent to the relevant haircuts for the specific assets subject to condition that the collateral obtained is not used or re-hypothecated.
- 4.49. In other cases, where the collateral obtained from secured lending transactions is not used to cover the bank's short position, a bank shall apply the following inflow rates from maturing reverse repurchase or securities borrowing agreements based on the type of asset securing the transaction.

Maturing secured lending transactions backed by the following asset category	Inflow rate (if collateral is not used)
Level 1 assets	0%
Level 2A assets	15%
Level 2B assets	50%
Margin lending backed by all other collaterals	50%
Other collaterals	100%

<sup>15</sup> Bankers' acceptance held by the bank that mature within 30 days may also be included.

**c) Committed Facilities**

- 4.50. No credit facilities, liquidity facilities or other contingent funding facilities that the bank holds at other banks/institutions for its purposes are assumed to be able to be drawn. Hence no inflows from these sources shall be included in the total net cash inflows

**d) Derivative Transactions**

- 4.51. The sum of all net cash inflows should receive a 100% inflow factor. The amounts of derivatives cash inflows and outflows should be calculated in accordance with the methodology described for derivatives under Cash Outflow section.
- 4.52. Where derivatives are collateralized by HQLA, cash inflows should be calculated net of any corresponding cash or contractual collateral outflows that would result, all other things being equal, from contractual obligations for cash or collateral to be posted by the bank, given these contractual obligations would reduce the stock of HQLA. This is in accordance with the principle that banks should not double-count liquidity inflows or outflows.

**e) Other Contractual Cash Inflows**

- 4.53. Inflows from securities maturing within 30 days (not included in the stock of HQLA) should be treated in the same category as inflows from financial institutions (i.e. 100% inflow). In case the asset is included as part of the stock of HQLA, the cash inflows associated with that asset shall not be counted by the bank as cash inflows.
- 4.54. **Operational deposits:** Deposits held at other financial institutions for operational purposes such as for clearing, custody, and cash management purposes (including nostro accounts), are assumed to stay at those institutions, and no inflows can be counted for these funds – i.e. they will receive a 0% inflow rate.
- 4.55. **Non-operational deposits:** Bank shall assign 100% inflow rate to deposits held at other financial institution for non-operational purposes (e.g. interbank placements) which are redeemable within next 30 calendar days.
- 4.56. Other contractual cash inflows: Expected dividend payment from the bank's investment in equities or equity like instruments shall not be included by the bank as expected cash inflow.



## 5. Reporting Template of LCR (LR-1)

LR -1				
<b>Liquidity Coverage Ratio (LCR)</b>				
Bank Name:	Month:			
<b>I. High Quality Liquid Assets (HQLA)</b>				
<b>Level 1 Assets</b>				
Amounts in PKR in thousands				
		Market Value	Weight	Weighted Amount
<b>1</b>	<b>Cash &amp; treasury balances held</b>		100%	
<b>2</b>	<b>Un-encumbered investments in govt. securities; of which:</b>			
2.1	Conventional government securities		100%	
2.3	GoP Ijara Sukuks		100%	
<b>3</b>	<b>Marketable Securities held with 0% risk weight, of which:</b>			
3.1	Issued or guaranteed by foreign sovereigns		100%	
3.2	Issued or guaranteed by central banks		100%	
3.3	Issued or guaranteed by PSEs		100%	
3.4	Issued or guaranteed by BIS, IMF, ECB and European Community, or other MDBs as defined in footnote 3 of the document		100%	
<b>4</b>	<b>For non-0% risk-weighted sovereigns:</b>			
4.1	sovereign or central bank debt securities issued in domestic currencies by the sovereign or central bank in the country in which the liquidity risk is being taken or in the bank's home country		100%	
4.2	GoP debt securities issued in foreign currencies, up to the amount of the bank's stressed net cash outflows in that specific foreign currency stemming from the bank's operations in Pakistan		100%	
<b>6</b>	<b>Total stock of Level 1 assets</b>			
<b>7</b>	<b>Adjustments (only used for cap calculations - refer to Annex 1)</b>			
7.1	<i>Add:</i> Amount lent under reverse repo or secured financing transactions - maturing within 30 days		100%	
7.2	<i>Deduct:</i> Market value of Level 1 assets received as collateral under reverse repo transaction or secured financing transaction - maturing within 30 days		100%	
7.3	<i>Add:</i> Market value of Level 1 assets provided as collateral under repo transaction or secured financing transaction - maturing within 30 days		100%	
7.4	<i>Deduct:</i> Amount borrowed under repo or secured funding transaction against HQLA - maturing in 30 days		100%	
<b>8</b>	<b>Adjusted amount of Level 1 assets</b>			

<b>Level 2A Assets ( Maximum of 40% of HQLA)</b>			
Amounts in PKR in thousands			
	<b>Market Value</b>	<b>Weight</b>	<b>Weighted Amount</b>
<b>9</b>	<b>Marketable Securities held with a 20% risk weight under Basel II standardized approach for credit risk:</b>		
9.1	Issued or guaranteed by foreign sovereigns/ central banks	85%	
9.2	Issued or guaranteed by PSEs	85%	
9.3	Issued or guaranteed by MDBs	85%	
<b>11</b>	<b>Total stock of Level 2A assets</b>		
<b>12</b>	<b>Adjustments (only used for cap calculations - refer to Annex 1)</b>		
12.1	<u>Add:</u> Market value of Level 2A assets placed as collateral for repo/ secured funding transactions maturing within 30 days	85%	
12.2	<u>Deduct:</u> market value of level 2A assets received as collateral against secured lending transactions maturing in 30 days	85%	
<b>13</b>	<b>Adjusted amount of Level 2A assets</b>		

<b>Level 2B Assets ( Maximum of 15% of HQLA)</b>			
Amount in PKR in thousands			
	<b>Market Value</b>	<b>Weight</b>	<b>Weighted Amount</b>
<b>14</b>	<b>Corporate debt securities held, of which:</b>		
14.1	Securities that have a long-term credit rating of at least AA- or a short term equivalent rating	85%	
14.2	Securities that have a long-term credit rating of at least A+ to BBB- or a short term equivalent rating	50%	
<b>16</b>	<b>Non-financial common equity shares held</b>		
<b>18</b>	<b>Total stock of Level 2B assets</b>		
<b>19</b>	<b>Adjustments (only used for cap calculations - refer to Annex 1)</b>		
19.1	<u>Add:</u> market value of level 2B assets provided as collateral provided against repo/secured funding transactions maturing in 30 days	50%	
19.2	<u>Deduct:</u> Market value of level 2B assets received as collateral against secured lending transactions maturing in 30 days	50%	
<b>20</b>	<b>Adjusted amount of Level 2B assets</b>		

<b>21</b>	<b>Adjustment to stock of HQLA due to cap on Level 2B assets - 15% cap.</b>	
<b>22</b>	<b>Adjustment to stock of HQLA due to cap on Level 2 assets</b>	

<b>1</b>	<b>Total stock of high quality liquid assets</b>	
<b>2</b>	<b>Total cash outflows</b>	
<b>3</b>	<b>Total cash inflows before applying the cap</b>	

<b>4</b>	<b>CAP on cash flows (75% of total cash outflows)</b>	
<b>5</b>	<b>Total cash inflows after cap</b>	
<b>6</b>	<b>Net cash outflows</b>	
<b>7</b>	<b>LCR</b>	

<b>II. Cash Outflows</b>				
Amount in PKR in Thousands				
<b>Sr.</b>	<b>Details of Cash Flows</b>	<b>Amount</b>	<b>Rate</b>	<b>Adjusted Amount</b>
<b>1</b>	<b>Retails deposits:</b>			
1.1	Stable deposits (deposits protected by Deposit Insurance)		5%	
1.2	Less stable deposits		10%	
<b>2</b>	<b>Unsecured wholesale funding:</b>			
2.1	Small business customers, of which:			
	• Stable deposits		5%	
	• Less stable deposits		10%	
2.2	Operational deposits generated by clearing, custody and cash management activities			
	• Portion covered by Deposit Insurance		5%	
	• Portion not covered by Deposit Insurance		25%	
2.3	Unsecured wholesale funding provided by non-financial corporate customers, sovereigns, central banks, multilateral development banks and PSEs		40%	
2.4	Unsecured funding from other legal entities/ customers		100%	
<b>3</b>	<b>Secured Funding (maturing within 30 days)</b>			
3.1	Secured funding transactions with SBP or backed by level 1 assets		0%	
3.2	Secured funding transactions backed by level 2A assets		15%	
3.3	Secured funding transactions backed by non-Level 1 or non-level 2 assets, with domestic sovereigns, multilateral development banks, or domestic PSEs as counterparty that have a 20% or lower risk weight		25%	
3.4	Secured funding transactions backed by level 2B assets		50%	
3.5	All other secured funding transactions, maturing within 30 days		100%	
<b>4</b>	<b>Additional Requirements</b>			
4.1	Undrawn committed credit and liquidity facilities			
i	Committed credit and liquidity facilities to retail and small business customers		5%	
ii	Committed credit facilities to non-financial corporates, sovereigns and central banks, PSEs and multilateral development banks		10%	
iii	Committed liquidity facilities to non-financial corporates, sovereigns and central banks, PSEs, and multilateral development banks		30%	
iv	Committed credit and liquidity facilities extended to banks		40%	
v	Committed credit facilities to other financial institutions including securities firms, insurance companies, fiduciaries and beneficiaries		40%	

vi	Committed liquidity facilities to other financial institutions including securities firms, insurance companies, fiduciaries and beneficiaries	100%	
vii	Committed credit and liquidity facilities extended to other legal entities conduits and special purpose vehicles, and other entities not included in the prior categories	100%	
4.2	Contingent Funding Liabilities		
i	Unconditionally revocable "uncommitted" credit and liquidity facilities	0%	
ii	Trade finance-related obligations (including guarantees and letters of credit) (Enter outstanding amount)	5%	
iii	Guarantees and letters of credit unrelated to trade finance obligations (Enter amount of total obligation)	5%	
iv	Non-contractual obligations related to potential liquidity draws from joint ventures or subsidiaries or minority investments in entities (Enter Investment Value)	5%	
v	Potential requests for debt repurchases of the bank's own debt, or outstanding debt securities having maturity greater than 30 calendar days whereby the bank or its affiliate is a dealer or marker maker (Enter Outstanding Amount)	5%	
vi	Non contractual obligations where customer short positions are covered by other customer's collateral (where the collateral does not qualify as Level 1 or Level 2 assets) (Enter collateral amount)	50%	
vii	Any other contingent funding obligation not covered above (Enter Outstanding Amount)	5%	
4.3	Net derivative cash outflows	100%	
4.4	Collateral Outflows - Increased liquidity needs related to:		
i	Downgrade triggers embedded in financing transactions, derivatives and other contracts	100%	
ii	Potential for valuation changes on non-level 1 posted collateral securing derivatives	20%	
iii	Excess non-segregated collateral held by the bank that could contractually be called at any time by the counterparty	100%	
iv	Contractually required collateral on transactions for which the counterparty has not yet demanded the collateral be posted	100%	
v	Contracts that allow collateral substitution to non-HQLA assets	100%	
vi	Market valuation changes on derivatives &/or other transactions (largest absolute net 30-day collateral flows realized during the preceding 24 months) based on look back approach	100%	
vii	Loss of funding from structured finance instruments maturing within the 30 days period		
a	Liabilities from maturing Sukuks, Asset backed securities etc. issued by the bank	100%	
b	Liabilities from maturing ABCP, SIVs, SPVs, etc (applied to maturing amounts and returnable assets)	100%	
4.5	Other contractual Cash flows		

<b>i</b>	Other contractual cash outflows (such as uncovered short positions, dividends or contractual interest payments etc.) within the next 30 calendar days, not captured elsewhere in this standard		100%	
<b>Total cash outflows</b>				

<b>III. Cash Inflows</b>				
Amount in PKR in thousands				
Sr.	Details of Cash Flows	Amount	Factor	Adjusted Amount
<b>1</b>	<b>Loans and other credit facilities by counterparty which are maturing within 30 days</b>			
1.1	Amounts to be received from retail and small business customers		50%	
1.2	Amounts to be received from non-financial corporates, PSEs, multilateral development banks		50%	
1.3	Amounts to be received from financial institutions and central banks		100%	
<b>2</b>	<b>Maturing secured lending transactions with financial institutions: <sup>1</sup></b>			
2.1	Level 1 assets		0%	
2.2	Level 2A assets		15%	
2.3	Level 2B assets		50%	
2.4	Margin lending backed by all other collaterals		50%	
2.5	Other collaterals		100%	
<b>3</b>	Credit facilities, liquidity facilities or other contingent funding facilities/ inflows that the bank holds at other institutions for its own use.		0%	
<b>5</b>	Net derivative cash inflows		100%	
<b>6</b>	Inflows from securities maturing within 30 days (not included in the stock of HQLA)		100%	
<b>7</b>	<b>Other contractual cash inflows</b>			
7.1	Operational deposits at other financial institutions		0%	
7.2	Non-operational Deposits		100%	
<b>Total Cash Inflows</b>				

Note

Banks will not be permitted to double count items, i.e. if an asset is included in the “stock of HQLA” (i.e. the numerator), the associated cash inflows cannot also be counted as cash inflows (i.e. part of the denominator).

## 6. LCR Disclosure Requirements

All banks (including foreign bank branches) shall be required to publish their LCR in their annual financial statements as part of “Note 45.4 – Liquidity Risk; circulated vide Revised Forms of Annual Financial Statements i.e. BSD circular No. 4 of 2006”.

In this regard, the first disclosure of LCR in the financial statement shall be made in the financials of Dec 31, 2017. The [template for disclosure](#) in the annual financials is appended below as LR –II.

Banks shall also be required to disclose their LCR positions in their quarterly financial statements as simple averages of monthly observations over the previous quarter. Similarly, the average LCR for each of the two preceding quarters would be mentioned in the semi-annual financial statements.

Since LCR is to be calculated on monthly basis therefore for annual disclosure, the LCR disclosed on annual basis would be reported as simple average of quarterly LCR.

In addition to the template LR-II, banks should provide sufficient qualitative discussion in their annual financials regarding the LCR which may involve the following:

- a. Governance of liquidity risk management, including: risk tolerance; structure and responsibilities for liquidity risk management; internal liquidity reporting; and communication of liquidity risk strategy, policies and practices across business lines and with the board of directors;
- b. Funding strategy, including policies on diversification in the sources and tenor of funding, and whether the funding strategy is centralized or decentralized
- c. Liquidity risk mitigation techniques;
- d. An explanation of how stress testing is used;
- e. An outline of contingency funding plans.
- f. The main drivers of their LCR results and the evolution of the contribution of inputs to the LCR’s calculation over time;
- g. Intra-period changes (in LCR) as well as changes in liquidity risk over time;
- h. The composition of HQLA;
- i. Concentration of funding sources;
- j. Currency mismatch in the LCR;
- k. Derivative exposures and potential collateral calls;
- l. A description of the degree of centralization of liquidity management and interaction between the group’s units; and
- m. Other inflows and outflows in the LCR calculation that are not captured in the LCR disclosure template but which the bank considers to be relevant for its liquidity profile.

**7. LCR Disclosure Template (LR- II) for financial statements**

**Reporting Frequency: Annually**

**Time Period required for reporting: As defined by SBP for annual accounts**

(All amounts in PKR thousands)

**LCR Disclosure**

<i>(in local currency)</i>		TOTAL UNWEIGHTED <sup>a</sup> VALUE (average)	TOTAL WEIGHTED <sup>b</sup> VALUE (average)
<b>HIGH QUALITY LIQUID ASSETS</b>			
1	Total high quality liquid assets (HQLA)		
<b>CASH OUTFLOWS</b>			
2	Retail deposits and deposits from small business customers of which:		
2.1	stable deposit		
2.2	Less stable deposit		
3	Unsecured wholesale funding of which:		
3.1	Operational deposits (all counterparties)		
3.2	Non-operational deposits (all counterparties)		
3.3	Unsecured debt		
4	Secured wholesale funding		
5	Additional requirements of which:		
5.1	Outflows related to derivative exposures and other collateral requirements		
5.2	Outflows related to loss of funding on debt products		
5.3	Credit and Liquidity facilities		
6	Other contractual funding obligations		
7	Other contingent funding obligations		
8	<b>TOTAL CASH OUTFLOWS</b>		
<b>CASH INFLOWS</b>			
9	Secured lending		
10	Inflows from fully performing exposures		
11	Other Cash inflows		
12	<b>TOTAL CASH INFLOWS</b>		

**TOTAL ADJUSTED VALUE**

21	<b>TOTAL HQLA</b>		
22	<b>TOTAL NET CASH OUTFLOWS</b>		
23	<b>LIQUIDITY COVERAGE RATIO</b>		

a unweighted values must be calculated as outstanding balances maturing or callable within 30 days ( for inflows and outflows)

b Weighted values must be calculated after the application of respective haircuts (for HQLA) or inflow and outflow rates ( for inflows and outflows)

c Adjusted values must be calculated after the application of both (i) haircuts and inflow and outflow rates and (ii) any applicable caps (i.e. cap on level 2B and level 2 assets for HQLA and cap on inflows)

## **Part 2: Net Stable Funding Ratio**

### **1. Introduction**

- 1.1. The objective of NSFR is to reduce funding risk over a longer time horizon by requiring banks to fund their activities with sufficiently stable sources of funding in order to mitigate the risk of future funding stress.
- 1.2. The instructions stipulated in the below paragraphs are focused on the calculation of NSFR and its disclosure in the financial statements.

### **2. Scope of Application**

- 2.1. The NSFR will be applicable for all banks/ DFIs on standalone level including overseas branch operations. However, going forward banks shall be encouraged to meet the NSFR framework at consolidated level.
- 2.2. For foreign banks' branches, the NSFR framework would be applied on their Pakistan operations.
- 2.3. When calculating the NSFR, a bank shall apply the rules and parameters as specified in this document to its local as well as overseas operations, except for foreign operations in a jurisdiction which has implemented the Basel III NSFR. In such cases, a bank shall apply the host jurisdiction's parameters to its foreign operations.

#### **A. Reporting Requirements**

- 2.4. Banks/ DFIs are expected to meet the NSFR requirement of at least 100% on an ongoing basis from December 31, 2017. NSFR statements are required to be submitted on quarterly basis to SBP as per the format (LR-VIII) given in [section 4](#) below.
- 2.5. The return is required to be submitted within fourteen (14) working days from the close of the calendar quarter.

### **3. Objective of the NSFR and Minimum Requirement**

- 3.1. The purpose of the net stable funding ratio ("NSFR") is to ensure that banks hold a minimum amount of stable funding based on the liquidity characteristics of their assets and off-balance sheet activities over a one year horizon.
- 3.2. A sustainable funding structure is intended to reduce the likelihood of erosion of a bank's liquidity position due to disruptions in a bank's regular sources of funding that would increase the risk of its failure and potentially lead to broader systemic stress.
- 3.3. The NSFR limits overreliance on short-term wholesale funding, encourages better assessment of funding risk across all on- and off-balance sheet items and promotes funding stability. The objective is to reduce maturity mismatches between the asset and liability items on the balance sheet and thereby reduce funding and rollover risk.



- 3.4. The ratio is defined as the amount of available stable funding (“ASF”) relative to the amount of required stable funding (“RSF”). The ratio should be equal to at least 100% on an ongoing basis. However, the NSFR would be supplemented by supervisory assessment of the stable funding and liquidity risk profile of a bank. On the basis of such assessment, SBP may require any bank to adopt more stringent standards to reflect its funding risk profile.

$\frac{\text{Available amount stable funding (funding sources)}}{\text{Required amount of stable funding (funding uses)}} \geq 100\%$
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**A. Calibrations of ASF and RSF - Assumptions**

- 3.5. The NSFR consists primarily of international agreed-upon definitions and calibrations. The amounts of ASF and RSF are calibrated to reflect the presumed degree of stability of liabilities and liquidity of assets.
- 3.6. The stability of liabilities is calibrated across two dimensions:
- a. Funding tenor – The NSFR is generally calibrated such that longer-term liabilities are assumed to be more stable than short-term liabilities.
  - b. Funding type and counterparty – The NSFR is calibrated under the assumption that short-term (maturing in less than one year) deposits provided by retail customers and funding provided by small business customers are behaviorally more stable than wholesale funding of the same maturity from other counterparties.
- 3.7. For various assets, the appropriate amounts of required stable funding is determined by the following criteria:
- a. Resilient credit creation – The NSFR requires stable funding for some proportion of lending to the real economy in order to ensure the continuity of this type of intermediation.
  - b. Bank behavior – The NSFR is calibrated under the assumption that banks may seek to roll over a significant proportion of maturing loans to preserve customer relationships.
  - c. Asset tenor – The NSFR assumes that some short-dated assets (maturing in less than one year) require a smaller proportion of stable funding because banks would be able to allow some proportion of those assets to mature instead of rolling them over.
  - d. Asset quality and liquidity value – The NSFR assumes that unencumbered, high-quality assets that can be securitized or traded, and thus can be readily used as collateral to secure additional funding or sold in the market, do not need to be wholly financed with stable funding.
- 3.8. Additional stable funding sources are also required to support at least a small portion of the potential calls on liquidity arising from off-balance sheet commitments and contingent funding obligations.
- 3.9. Definitions on various components of NSFR indicated in the below paragraphs follow the same definition outlined in the LCR instructions, unless otherwise specified.

## B. Definition of Available Stable Funding

- 3.10. The amount of available stable funding (ASF) is measured mainly on the broad characteristics of the relative stability of a bank's funding sources (equity & liabilities), contractual maturity of its liabilities and the difference in the tendency to withdraw their funding by different types of funding providers.
- 3.11. The amount of ASF is calculated by first assigning the carrying value of a bank's capital and liabilities to one of the five categories as presented in table-1 below and multiplying those with the corresponding ASF factor. The total ASF is the sum of weighted amounts.
- 3.12. The carrying value represents the amount at which a liability or equity instruments is recorded before the application of any regulatory deductions/ adjustments. Notably, the equity instruments include the total amount of regulatory capital (CET1, AT1 and T2) under fully implemented Basel III standards<sup>16</sup> before application of capital deductions and excluding the proportion of Tier II instruments with residual maturity of less than one year.
- 3.13. When determining the maturity of an equity or liability instrument, investors are assumed to redeem a call option at the earliest possible date. For funding with options exercisable at the bank's discretion, the SBP may take into account reputational factors that may limit a bank's ability not to exercise the option. In particular, where the market expects certain liabilities to be redeemed before their legal final maturity date, banks should assume such behavior for the purpose of the NSFR and include these liabilities in the corresponding ASF category. For long-dated liabilities, only the portion of cash flows falling at or beyond the six-month and one-year time horizons should be treated as having an effective residual maturity of six months or more and one year or more, respectively.
- 3.14. Deferred tax liabilities should be treated according to the nearest possible date on which such liabilities could be realized. Similarly, minority interest (for consolidated reporting only) should also be treated according to the term of the instrument (although these are mostly perpetual). These liabilities may be assigned either a 100% ASF factor if the effective maturity is one year or greater; or 50% if the effective maturity is between six months and less than one year.
- 3.15. Derivative liabilities are calculated first based on the replacement cost for derivative contracts (obtained by marking to market) where the contract has a negative value. If the derivative exposure is covered by an eligible bilateral netting contract, the replacement cost for the set of derivative exposures covered by the contract will be the net replacement cost. In calculating NSFR derivative liabilities, collateral posted in the form of variation margin in connection with derivative contracts, regardless of the asset type, must be deducted from the negative replacement cost amount.

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<sup>16</sup> e.g. AT1 & T2 instruments issued without loss absorbency clause are not considered and for T2 instruments phase-out arrangements of year 2022 are to be applied, as mentioned in the SBP Basel III instructions.

Liability/ Equity Categories and Associated ASF factors		
		Table 1
S.no	ASF Category	ASF factor
1	<ul style="list-style-type: none"> <li>- The total amount of regulatory capital (CET1, AT1 and T2) under fully implemented Basel III standards, before application of capital deductions and excluding the proportion of Tier II instruments with residual maturity of less than one year</li> <li>- Other Liabilities with effective residual maturity or one year or more</li> <li>- Deferred tax liabilities (if the effective maturity of the liability greater than one year)</li> <li>- Minority Interest (if it is perpetual or the effective maturity of the liability is greater than or equal to one year) - for consolidated reporting only</li> </ul>	100%
2	<ul style="list-style-type: none"> <li>- Stable non-maturity demand &amp; term deposits with residual maturity of less than one year and provided by retail and small business customers</li> </ul>	95%
3	<ul style="list-style-type: none"> <li>- Less Stable non-maturity demand &amp; term deposits with residual maturity of less than one year and provided by retail and small business customers</li> </ul>	90%
4	<ul style="list-style-type: none"> <li>- Funding (secured and unsecured) with residual maturity of less than one year provided by non-financial corporate customers</li> <li>- Operational deposits (as defined for LCR)</li> <li>- Funding (secured and unsecured) with residual maturity of less than one year from sovereigns, public sector entities (PSEs) and multilateral and national development banks</li> <li>- Other funding (secured and unsecured) not included in the above categories with maturity between six months to less than one year, including funding from central banks and financial institutions</li> <li>- Deferred tax liabilities (if the effective maturity of the liability is between six months and less than one year)</li> <li>- Minority Interest (if the effective maturity of the liability is between six months and less than one year) - for consolidated reporting only</li> </ul>	50%
5	<ul style="list-style-type: none"> <li>- All other liabilities and equity not included in the above categories, including liabilities without a stated maturity</li> <li>- NSFR derivative liabilities net of NSFR derivative assets if NSFR derivative liabilities are greater than NSFR derivative assets [MAX(( NSFR derivative liabilities –NSFR derivative assets),0)]</li> <li>- “Trade date” payables arising from purchases of financial instruments, foreign currencies and commodities</li> <li>- Deferred Tax Liabilities (if the effective maturity of the liability is less than 6 months)</li> <li>- Minority Interest (if the effective maturity of the liability is less than 6 months)</li> </ul>	0%

### C. Required Stable Funding

- 3.16. The amount of required stable funding (RSF) is measured based on the broad characteristics of the liquidity risk profile of a bank’s assets and off-balance sheet (OBS) exposures.
- 3.17. The amount of RSF is calculated by first assigning the carrying value of a bank’s assets to the categories listed in the Table 2.1 below. The amount assigned to each category is then multiplied by its associated required stable funding (RSF) factor, and the total RSF is the sum of the weighted amounts added to the amount of OBS activity

(or potential liquidity exposure) multiplied by its associated RSF factor (Table 2.2). Definitions mirror those outlined in the LCR, unless otherwise specified<sup>17</sup>.

- 3.18. The RSF factors assigned to various types of assets are intended to approximate the amount of a particular asset that would have to be funded, either because it will be rolled over, or because it would not be monetized (through sale or used as collateral in a secured borrowing transaction) over the course of one year without significant expense. Under the standard, such amounts are expected to be supported by stable funding.
- 3.19. Assets are to be allocated to the appropriate RSF factor based on their residual maturity or liquidity value. When determining the maturity of an instrument, investors should be assumed to exercise any option to extend maturity. For assets with options exercisable at the bank's discretion, it should be assumed that reputational factors may limit a bank's ability not to exercise the option and accordingly higher RSF Factor should be applied. In other instances, where the market expects certain assets to be extended in their maturity, banks should assume such behavior for the purpose of the NSFR and include these assets in the corresponding RSF category. For amortizing loans, the portion that comes due within the one-year horizon can be treated in the less-than-one-year residual maturity category.
- 3.20. For purposes of determining its required stable funding, a bank should:
- i. include financial instruments, foreign currencies and commodities for which a purchase order has been executed, and
  - ii. exclude financial instruments, foreign currencies and commodities for which a sales order has been executed, even if such transactions have not been reflected in the balance sheet under a settlement-date accounting model, provided that:
    - (a) such transactions are not reflected as derivatives or secured financing transactions in the bank's balance sheet, and
    - (b) The effects of such transactions will be reflected in the bank's balance sheet when settled.
- 3.21. Encumbered assets<sup>18</sup> will attract the RSF factor according to the period of encumbrance as summarized in the table below:

<b>Encumbrance Period</b>	<b>RSF Factor</b>
$\geq 12$ months	100%
$6 \leq$ months $< 12$	Max (50%, RSF as that of an equivalent unencumbered asset)
$\leq 6$ months	RSF Factor as that of an equivalent asset that is unencumbered

- 3.22. Held to maturity (HTM) securities will be treated as encumbered securities and will attract RSF factors according to their residual maturity as per table above.
- 3.23. For secured funding arrangements (such as reverse repos and collateral swaps), banks should exclude, from their assets, securities which they have borrowed in securities

<sup>17</sup> For the purpose of calculating the NSFR, HQLA are defined as all HQLA without regard to LCR operational requirements and LCR caps on Level 2 and Level 2B assets that may otherwise limit the ability to some HQLA to be included as eligible HQLA in calculation of the LCR.

<sup>18</sup> Assets that are NOT free of legal, regulatory, contractual or other restrictions on the ability of the bank to liquidate, sell or transfer these assets

financing transactions (such as reverse repo and collateral swaps) where they do not have beneficial ownership. In contrast bank should include securities they have lent in securities financing transactions where they retain beneficial ownership. Banks should also not include any securities they have received through collateral swaps if those securities do not appear on their balance sheets. Where banks have encumbered securities in repos or other securities financing transactions, but have retained beneficial ownership and those assets remain on the bank's balance sheet, the bank should allocate such securities to the appropriate RSF category.

- 3.24. Securities financing transactions with a single counterparty may be measured net<sup>19</sup>, provided that the netting conditions set out below are met:
- a. Transactions have the same explicit final settlement date.
  - b. The right to set-off the amount owed to the counterparty with the amount owed by the counterparty is legally enforceable both currently in the normal course of business and in the event of: (i) default; (ii) insolvency; and (iii) bankruptcy.
  - c. Transactions are settled net, settled simultaneously, or are subject to a settlement mechanism that results in the functional equivalent of net settlement i.e. a single net amount on the settlement date.
- 3.25. Derivative assets are calculated first based on the replacement cost for derivative contracts (obtained by marking to market) where the contract has a positive value. When an eligible bilateral netting contract is in place that meets the following conditions the replacement cost for the set of derivative exposures covered by the contract will be the net replacement cost.
- a. a netting contract or agreement with the counterparty that creates a single legal obligation, covering all included transactions, such that the bank would have either a claim to receive or obligation to pay only the net sum of the positive and negative mark-to-market values of included individual transactions in the event a counterparty fails to perform due to any of the following: default, bankruptcy, liquidation or similar circumstances;
  - b. Written and reasoned legal opinions that, in the event of a legal challenge, the netting is enforceable under the laws of each of the relevant jurisdictions. Moreover, procedures should be in place to ensure that the legal characteristics of netting arrangements are kept under review in the light of possible changes in relevant law.
  - c. Contracts containing walkaway clauses will not be eligible for netting. A walkaway clause is a provision that permits a non-defaulting counterparty to make only limited payments or no payment at all, to the estate of a defaulter, even if the defaulter is a net creditor.
- 3.26. In calculating NSFR derivative assets, collateral received in connection with derivative contracts may not offset the positive replacement cost amount, regardless of whether or not netting is permitted under the bank's operative accounting or risk-based framework.
- 3.27. Any balance sheet liability associated with (a) variation margin received or (b) initial margin received may not offset derivative assets and should be assigned a 0% ASF factor.

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<sup>19</sup> Cash payables and cash receivables in SFTs with the same counterparty may be measured net

3.28. As assets are to be allocated to the appropriate RSF category/factor based on their liquidity value and residual maturity. RSF categories and the associated weighing factors are provided in the table 2.1 below.

Asset categories and associated RSF factors		Table 2.1
#	RSF Category	RSF Factor
1	<ul style="list-style-type: none"> <li>Cash &amp; treasury balances (including balances held with SBP)</li> <li>Unencumbered investments in Pakistan Government securities (e.g. Treasury bills, Pakistan investment bonds etc.)</li> <li>Government of Pakistan Ijara Sukuks</li> <li>All claims on SBP (irrespective of residual maturity)</li> <li>All claims on central banks with residual maturities of less than six months</li> <li>'Trade date' receivables arising from sales of financial instruments, foreign currencies and commodities that are expected to settle</li> </ul>	0%
2	<ul style="list-style-type: none"> <li>Unencumbered government securities and other unencumbered Level 1 assets (as defined in LCR) excluding assets receiving 0% RSF as specified above.</li> </ul>	5%
3	<ul style="list-style-type: none"> <li>Unencumbered loans to financial institutions with residual maturities of less than six months, where the loan is secured against Level 1 assets and where the bank has the ability to freely rehypothecate the received collateral for the life of the loan</li> </ul>	10%
4	<ul style="list-style-type: none"> <li>Unencumbered Level 2A assets (as defined in Part 1(LCR) of this document)</li> <li>All other unencumbered loans to financial institutions with residual maturities of less than six months not included in the above categories</li> </ul>	15%
5	<ul style="list-style-type: none"> <li>Unencumbered Level 2B assets (as defined in Part 1 (LCR) of this document)</li> <li>HQLAs as define for LCR that are encumbered for a period of six months or more and less than one year</li> <li>Loans to financial institutions and central banks (other than SBP) with residual maturities between six months and less than one year</li> <li>Deposits held at other financial institutions for operational purposes, as outlined in <a href="#">Annexure-D</a></li> <li>All other non- HQLA assets not included in the above categories with residual maturity of less than one year, including loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns and PSEs</li> </ul>	50%
6	<ul style="list-style-type: none"> <li>Residential mortgages and other unencumbered loans not included in the above categories (excluding loans to financial institutions) with a residual maturity of one year or more and with a risk weight of less than or equal to 35% under the standardized approach of credit risk in Basel capital framework.</li> </ul>	65%
7	<ul style="list-style-type: none"> <li>Collateral posted as initial margin for derivative contracts (Cash, securities or other assets etc.).</li> <li>Other unencumbered performing loans with risk weights greater than 35% under the standardized approach and residual maturities of one year or more, excluding loans to financial institutions</li> <li>Unencumbered securities that are not in default and do not qualify as HQLA with a remaining maturity of one year or more and exchange-traded equities,</li> <li>Physical traded commodities, including gold</li> </ul>	85%
8	<ul style="list-style-type: none"> <li>All assets that are encumbered for a period of one year or more</li> <li>Securities classified as held to maturity and have residual maturity greater than 1 year</li> <li>NSFR derivative assets net of NSFR derivative liabilities if NSFR derivative assets are greater than NSFR derivative liabilities</li> <li>20% of derivative liabilities (calculated as per paragraph 3.15)</li> <li>All other assets not included in the above categories, including non-performing loans (net of provisions), loans to financial institutions with a residual maturity of one year or more, non-exchange-traded equities, fixed assets, items deducted from regulatory capital, retained interest, insurance assets, subsidiary interests and defaulted securities</li> </ul>	100%
- <i>Note: All definitions mirror those of LCR, unless specified otherwise.</i>		

**Off-balance sheet exposures**

3.29. OBS exposures have been categorized on the basis of whether the commitment is a credit or a liquidity facility or some other contingent funding obligation. Table 2.2 delineates the specific types of OBS exposures and the associated RSF factor.

<b>Off Balance Sheet categories and associated RSF Factors</b>		<b>Table 2.2</b>
<b>RSF Category</b>	<b>RSF Factor</b>	
<ul style="list-style-type: none"> <li>• Irrevocable and conditionally revocable credit and liquidity facility to any client</li> <li>• Other contingent funding obligation, including products and instruments such as                             <ul style="list-style-type: none"> <li>▪ Unconditionally revocable credit and liquidity facilities</li> <li>▪ Trade Finance – related obligations (including guarantees and letter of credit)</li> <li>▪ Guarantees and letters or credit unrelated to trade finance obligations</li> <li>▪ Non-contractual obligations such as:                                     <ul style="list-style-type: none"> <li>- potential requests for debt repurchases of the bank’s own debt or that of related conduits, securities investment vehicles and other such financing facilities</li> <li>- structured products where customers anticipate ready marketability,</li> <li>- managed funds that are marketed with the objective of maintaining a stable value</li> </ul> </li> </ul> </li> </ul>	<p>5% of the currently undrawn portion</p>	

#### 4. Reporting Template of NSFR (LR-VIII)

### Net Stable Funding Ratio (NSFR)

Bank Name :

Quarter:

#### A) Available stable funding

Components of ASF category	Amount	ASF factor	ASF
<b>ASF with 100%</b>			
Regulatory Capital:			
Common equity		100%	
Additional Tier I Capital Instruments		100%	
Tier II capital instruments (excluding the proportion of Tier 2 instruments with residual maturity of less than one year)		100%	
Borrowings and Liabilities with effective residual maturity $\geq$ 1 year		100%	
Deferred tax liabilities – with effective maturity $\geq$ 1 year			
Minority Interest – If perpetual or with effective maturity $\geq$ 1 year			
<b>ASF with 95%</b>			
"Stable" demand and/or term deposits from retail and small business customers - with residual maturity of < 1 year		95%	
<b>ASF with 90%</b>			
"Less stable" demand and/or term deposits from retail and small business customers- with residual maturity < 1 year		90%	
<b>ASF with 50%</b>			
Funding with residual maturity of < 1 year provided by <b>non-financial corporate customers</b>		50%	
Operational Deposits		50%	
Funding with residual maturity of < 1 year from sovereigns, PSEs, and multilateral and national development banks		50%	
other liabilities with residual maturity $\geq$ 6 months to < 1 year including funding provided by central banks and financial institutions		50%	
Deferred tax liabilities – with effective maturity $\geq$ 6 month and < 1 year		50%	
Minority Interest –with effective maturity $\geq$ 6 month and < 1 year		50%	
<b>ASF with 0%</b>			
NSFR derivative liabilities (derivative liabilities less total collateral posted as variation margin on derivative liabilities)			
NSFR derivative liabilities net of NSFR derivative assets		0%	
Any other liabilities		0%	
Deferred tax liabilities – with effective maturity < 6 months		0%	
Minority Interest –with effective maturity < 6 months		0%	
<b>Total ASF</b>			



## B) Required stable funding

### 1) On balance-sheet items

Components of RSF category	Amount	RSF factor	RSF
<b>RSF with 0%</b>			
Cash & treasury balances (including balances held with SBP)		0%	
Unencumbered investments in Pakistan Government securities		0%	
GoP Sukuks		0%	
All Claims on SBP (irrespective of residual maturity)			
All Claims on the Central bank with residual maturity < 6 months		0%	
'Trade date' receivables		0%	
<b>RSF with 5%</b>			
Other Securities eligible as Level 1 HQLA for the LCR, of which:			
Unencumbered		5%	
Encumbered where remaining period of encumbrance < 6 months		5%	
<b>RSF with 10%</b>			
Unencumbered loans to financial institutions secured by Level 1 collateral and where the bank has the ability to freely rehypothecate the received collateral for the life of the loan; of which:		10%	
<b>RSF with 15%</b>			
all other unencumbered loans to financial institutions with residual maturity < 6 months		15%	
level 2A HQLA as defined in LCR; of which:			
Unencumbered		15%	
Encumbered with remaining period of encumbrance < 6 months		15%	
<b>RSF with 50%</b>			
Level 2 B HQLA as defined in LCR; of which:			
Unencumbered		50%	
Encumbered with remaining period of encumbrance < 6 months		50%	
Level 1 HQLA encumbered for a period $\geq$ 6 months to < 1 year		50%	
Level 2A HQLA encumbered for a period $\geq$ 6 months to < 1 year		50%	
Loans to financial institutions and central banks (other than SBP) with residual maturity $\geq$ 6 months to < 1 year		50%	
Deposits held at financial institutions for operational purposes; of which:			
Unencumbered		50%	
Encumbered with an encumbrance period < 1 year		50%	
all other assets not included in the above categories with residual maturity < 1 year		50%	
<b>RSF with 65%</b>			

Unencumbered Performing loans (except loans to financial institutions and loans reported in above categories) with risk weights $\leq 35\%$ under the Basel II standardised approach for credit risk:		65%	
<b>RSF with 85%</b>			
Cash or securities posted as initial margin for derivative contracts		85%	
Other unencumbered performing loans (except loans to financial institutions and loans reported in above categories) with risk weights $> 35\%$ under the Basel II standardised approach for credit risk		85%	
Unencumbered securities that are not in default and do not qualify as HQLA with a remaining maturity $> 1$ year and exchange traded equities		85%	
physical traded commodities, including Gold		85%	
<b>RSF with 100%</b>			
All asset that are encumbered for a period $\geq 1$ year of which			
Level 1 HQLA		100%	
Level 2A HQLA		100%	
Level 2B HQLA		100%	
Other assets / HTM securities with residual maturity $\geq 1$ year		100%	
NSFR derivative assets			
Net NSFR derivative assets (derivative assets - derivative liabilities)		100%	
20% of derivative liabilities		100%	
all other assets not included in the above categories		100%	
<b>Total RSF (On - Balance sheet)</b>			

## 2) Off balance-sheet items

Components of RSF category	Amount	RSF factor	RSF
Irrevocable or conditionally revocable liquidity facilities		5%	
Irrevocable or conditionally revocable credit facilities		5%	
Unconditionally revocable liquidity facilities		5%	
Unconditionally revocable credit facilities		5%	
Trade finance-related obligations (including guarantees and letters of credit)		5%	
Guarantees and letters of credit unrelated to trade finance obligations		5%	
Non-contractual obligations, such as:			
Debt-buy back requests (incl related conduits)		5%	
Structured products		5%	
Managed funds		5%	
Other non-contractual obligations		5%	
All other off balance-sheet obligations not included in the above categories		5%	
<b>Total RSF (On - Balance sheet)</b>			
<b>Total RSF</b>			

## **5. NSFR Disclosure Requirements**

All banks (including foreign bank branches) shall be required to publish their NSFR in their annual financial statements as part of “Note 45.4 – Liquidity Risk; circulated vide Revised Forms of Annual Financial Statements i.e. BSD circular No. 4 of 2006”.

In this regard, the first disclosure of LCR in the financial statement shall be made in the financials of Dec 31, 2017. The template for disclosure in the financials is appended below as LR – IX.

Banks shall also be required to disclose their NSFR positions in their quarterly financial statements.



19	Performing loans to non-financial corporate clients, loans to retail and small business customers, and loans to sovereigns, central banks and PSEs, of which:					
20	With a risk weight of less than or equal to 35% under the Basel II Standardized Approach for credit risk					
21	Securities that are not in default and do not qualify as HQLA including exchange-traded equities.					
22	Other assets:					
23	Physical traded commodities, including gold					
24	Assets posted as initial margin for derivative contracts					
25	NSFR derivative assets					
26	NSFR derivative liabilities before deduction of variation margin posted					
27	All other assets not included in the above categories					
28	Off-balance sheet items					
29	Total RSF					
30	Net Stable Funding Ratio (%)					

**Notes for completion of the NSFR common disclosure template:**

1. Rows in the template are set and compulsory for all banks/ DFIs
  - a. Each dark grey row introduces a section of the NSFR template.
  - b. Each light grey row represents a broad subcomponent category of the NSFR in the relevant section.
  - c. Each unshaded row represents a subcomponent within the major categories under ASF and RSF items (As an exception, rows 20 is a subcomponent of row 19)
  - d. No data should be entered for the dark grey cells.
2. Figures entered in the template should be the year-end observations of individual line items.
3. Figures entered for each RSF line item should include both unencumbered and encumbered amounts
4. Figures entered in unweighted columns are to be assigned on the basis of residual maturity and in accordance with paragraphs 3.13 and 3.19 of the NSFR rules text

### Part 3: Monitoring Tools

In addition to the LCR standard outlined in Part-1 of the document, the Basel III framework has also prescribed five monitoring tools for better monitoring of bank's liquidity position. These metrics, together with the LCR, NSFR & SLR shall provide the cornerstone of information that would aid SBP in assessing the liquidity risk of a bank. In utilizing these metrics, SBP will take action when potential liquidity difficulties are signaled through a negative trend in the metrics, or when a deteriorating liquidity position is identified, or when the absolute result of the metric identifies a current or potential liquidity problem.

These metrics include:

- I. Contractual maturity mismatch;
- II. Concentration of funding;
- III. Available unencumbered assets;
- IV. LCR by significant currency; and
- V. Market-related monitoring tools

#### A. Reporting Requirements

Reporting requirements to be followed by Banks for reporting of the aforementioned metrics for banks are follows:

Metric	Reporting frequency	Implementation date	Reporting time
Contractual maturity mismatch	Fortnightly	March 31, 2017	14 working days
Concentration of funding	Monthly		
Available unencumbered assets	Quarterly		
LCR by significant currency	Monthly		
Market related monitoring tools	Monthly		

## I. Contractual maturity mismatch

The contractual maturity mismatch profile identifies the gaps between the contractual inflows and outflows of liquidity for defined time bands. These maturity gaps indicate how much liquidity a bank would potentially need to raise in each of these time bands if all outflows occurred at the earliest possible date. This metric provides insight into the extent to which the bank relies on maturity transformation under its current contracts.

SBP has defined time bands in the Revised Forms of Annual Financial Statements issued vide BSD circular No. 4 of 2006 (Note 45.4 – Liquidity Risk) and under reporting of Quarterly Data File Structure (DFS) under Reporting Chart of Accounts (RCOA) through Data Acquisition Portal vide OSED circular letter No. 1 of 2009. Moreover, additional guidance was issued vide BSD circular letter # 3 of February 22, 2011.

Under Basel III rules, following amendments are being made to earlier issued instructions:

- The specified time bands are being amended to capture cash flow mismatches in shorter durations. Now the bank shall report cash and security flows in the time bands of overnight, 7 day, 14 day, 1, 2, 3, 6 and 9 months, 1, 2, 3, 5 and beyond 5 years buckets.
- The cash flows are required to be placed in different time bands based on the residual maturity of the cash flows or the projected future behavior of assets, liabilities and **off-balance sheet items** (LCs, guarantees, commitments and derivatives etc.)
- All assumptions used in the projections of cash flows should be adequately documented and reviewed periodically by the management risk committee. However, for SBP reporting, no rollover of existing liabilities is to be assumed and for assets the bank shall not assume to enter into new contracts.
- The mismatches in cash flows in the near term buckets, up to one month, should be kept at the minimum levels.
- Bank shall additionally disclose the following:
  - Information on investments/ instruments that have no specific maturity;
  - Capital and non-performing loans (only required for calendar quarter end reporting i.e. March, June, September and December).

The template LR-III to be used for SBP reporting on fortnightly basis is as follows:

**. LR – III: Contractual Maturity Mismatch**

**Reporting Frequency: fortnightly**

**Time Period required for reporting to SBP: within fourteen (14) working days**

(All amounts in PKR thousands)

	Residual Maturity (Buckets)												
	Days			Month					Year				
	1	7	14	1	2	3	3<mt≤6	6<mt≤9	1	2	3	3<yr≤5	>5
A. Cash Inflows													
•													
•													
•													
B. Cash Outflows													
•													
•													
•													
C. Mismatch													

<b>Capital &amp; Non-Performing Loans</b>	
<b>Capital</b>	<b>Amounts</b>
• CET1	
• Additional Tier-1 (recognized for CAR)	
• Tier-2 (recognized for CAR)	
• Total Eligible Capital	
<b>Non-Performing Loans</b>	
• Total Loans	
• Non-performing loans	



<b>Information on Investments/ Instruments/ Items with no Maturity</b>	
<b>Name of Instrument</b>	<b>Amounts</b>
•	
•	
•	
•	
<b>TOTAL</b>	

<b>Customers Collateral received - which can be re-hypothecated</b>			
<b>Name of Instrument</b>	<b>Total Amounts</b>	<b>Amount already hypothecated</b>	<b>Available amount</b>
	<b>A</b>	<b>B</b>	<b>C = A-B</b>
•			
•			
•			
<b>TOTAL</b>			

## II. Concentration of Funding

This metric is meant to identify those sources of wholesale funding that are of such significance that withdrawal of this funding could trigger liquidity problems. The metric thus encourages the diversification of funding sources. The metric measures:

- A. Funding liabilities sourced from each significant counterparty as a % of total Deposits and Liabilities.
- B. Funding liabilities sourced from each significant product/instrument as a % of total assets and liabilities
- C. List of asset and liability amounts by significant currency

### A. Significant Counterparty

The numerator for counterparties is calculated by aggregating the total of all types of liabilities (deposits, borrowings etc.) to a single counterparty or group of connected or affiliated counterparties as defined in SBP Prudential Regulations/ Basel III instructions.

A “significant counterparty” is defined as a single counterparty or group of connected or affiliated counterparties accounting in aggregate for more than 1% of the bank's total assets (balance sheet) or 10% of bank’s equity (i.e. Large Exposure defined under Prudential Regulations).

### B. Significant Instrument

The numerator for type of instrument/product should be calculated for each individually significant funding instrument/product, as well as by calculating groups of similar types of instruments/products. “Significant instrument/product” is defined as a single instrument/product or group of similar instruments/products that in aggregate amount to more than 1% of the bank's total balance sheet.

### C. Significant Currency

In order to capture the amount of structural currency mismatch in a bank’s assets and liabilities, banks are required to provide a list of the amount of assets and liabilities in each significant currency. A currency is considered “significant” if the aggregate liabilities denominated in that currency amount to 5% or more of the bank's total liabilities.

The banks are required to report their funding concentration on monthly basis within 14 working days as per the given format (LR – IV).

## LR – IV: Concentration of Funding

**Reporting Frequency: Monthly**

**Time Period required for reporting to SBP: within 14 working days**

(All amounts in PKR thousands)

<b>A. Significant Counterparty<sup>20</sup></b>										
<b>Group Name</b>	<b>Name of Counterparty</b>	<b>Amount of Funding</b>	<b>% of Deposits</b>	<b>% of Liabilities</b>	<b>Breakdown of amount by residual maturity</b>					<b>Related Party/ Affiliate (Yes/ No)</b>
					<b>≤ 1 month</b>	<b>1 &lt; mths ≤ 3</b>	<b>3 &lt; mths ≤ 6</b>	<b>6 &lt; mths ≤ 12</b>	<b>&gt; 12 mths</b>	
<b>Deposits</b>										
1.										
2.										
<b>Borrowings</b>										
1.										
2.										

<sup>20</sup> A significant counterparty is defined as a single counterparty or group of connected or affiliated counterparties accounting in aggregate for more than 1% of the bank's total assets (balance sheet) or 10% of bank's equity (i.e. Large Exposure defined under Prudential Regulations).

## LR – IV: Concentration of Funding

(Page-2 of LR-IV)

<b>B. Significant Instrument<sup>21</sup></b>								
Name of Instrument/ Product	Amount of Funding	% of Assets	% of Liabilities	Breakdown of amount by residual maturity				
				≤ 1 mth	1< mths ≤ 3	3<mths≤6	6<mths≤12	>12 mnths

<b>A. Significant Currency<sup>22</sup></b>							
Name of Significant Currency & Amount	% of Assets	% of Liabilities	Breakdown of amount by residual maturity				
			≤ 1 month	1< mths ≤ 3	3<mths≤6	6<mths≤12	>12 mnths
<b>Assets</b>							
1.							
2.							
<b>Liabilities</b>							
1.							
2.							

<sup>21</sup> Significant instrument/product is defined as a single instrument/product or group of similar instruments/products that in aggregate amount to more than 1% of the bank's total balance sheet.

<sup>22</sup> A currency is considered significant if the aggregate liabilities denominated in that currency amount to 5% or more of the bank's total liabilities.

### III. Available unencumbered assets

A bank is to report the amount, type and location of available unencumbered assets that could serve as collateral for additional secured borrowing in secondary markets at prearranged or current haircuts at reasonable costs and/or are eligible for central bank's standing facilities.

The banks are required to report their available unencumbered assets on quarterly basis within 14 working days as per the given format (LR – V) below.

**LR – V: Available Unencumbered Assets**

(All amounts in PKR thousands)

Statement of Available Unencumbered Assets					
Sr. #	Value (in PKR)	Asset Type	Location	Estimated Haircut <small>(required by secondary market)</small>	Expected monetized value of collateral
<b>1. Available unencumbered assets that are marketable as collateral in secondary markets</b>					
1.					
2.					
---					
<b>2. Available unencumbered assets that are eligible for central banks' standing facilities</b>					
1.					
2.					
3.					
---					
<b>3. By Significant Currency - Available unencumbered assets that are marketable as collateral in secondary markets</b>					
<b>USD</b>					
<b>Euro</b>					
<b>Yen etc.</b>					

#### IV. LCR by significant currency

While the LCR is required to be met in one single currency, in order to better capture potential currency mismatches, banks should also monitor the LCR in significant currencies. This will allow the bank to track potential currency mismatch issues that could arise.

Foreign Currency LCR = Stock of HQLA in each significant currency / Total net cash outflows over a 30-day time period in each significant currency.

As the foreign currency LCR is not a standard but a monitoring tool, therefore no threshold for the FCY LCR is being prescribed by SBP, it is expected that banks will keep it at adequate level.

The definition of the stock of high-quality foreign exchange assets and total net foreign exchange cash outflows should mirror those of the LCR for common currencies. A currency is considered “significant” if the aggregate liabilities denominated in that currency amount to 5% or more of the bank's total liabilities.

Banks are required to submit their LCR by significant currency on monthly frequency to SBP. The statement is required to be submitted within fourteen (14) working days from the close of the calendar month as per the given format (LR – VI) below.

#### LR – VI: LCR by Significant Currency

(All amounts in PKR thousands)

Reporting Template – LCR by Significant Currency <sup>23</sup>					
Stock of HQLA	US\$	Euro	Yen	Others <sup>24</sup>	Total
Level 1					
Level 2A					
Level 2B					
<b>A. Total adjusted HQLA</b> (after incorporating haircuts, caps and unwinding requirements)					
<b>Net Cash Outflow</b>					
Total cash inflows					
Total Cash outflows					
Net Cash Outflow {(2) – (1)}					
Liquidity Coverage Ratio (LCR) (A/B*100)	%	%	%	%	

<sup>23</sup> A currency is considered significant if the aggregate liabilities denominated in that currency amount to 5% or more of the bank's total liabilities.

<sup>24</sup> Where the aggregate liabilities in that currency are less than 5% of the bank's total liabilities.

**V. Market-related Monitoring Tools**

This metric includes high frequency market data that can be used as early warning indicators in monitoring potential liquidity difficulties at banks. SBP shall monitor the market data on the following levels to focus on potential liquidity difficulties:

1. Market-wide information
2. Information on the financial sector
3. Bank-specific information

To address this metric, bank specific “Other Information on Liquidity” shall be submitted as per the format given at LR – VII on monthly basis within 14 working days.

**LR – VII: Statement of “Other Information on Liquidity”**

**A. Movement in Equity Price - Bank and other Group entities:**

Entity Name	Par Value	Price on the first trading day of the month	Highest Price of the month with date	Lowest Price of the month with date	Price on the last trading day of the month	Standard Deviation/ Volatility of the Price
Bank						
Other Group Entities						
1						
2						
---						

**B. Movement in Non-Equity Instruments (Preference Shares, TFCs, other instruments) issued by the Bank:**

Type of Instrument	Amount Outstanding	Face Value	Date of Issue	Date of Maturity	Dividend/ Markup rate	Price during the month
1						
2						
---						

**C. Penalties imposed in respect of Breach of Liquidity Requirements on Overseas Operations (Including Branches/ Subsidiaries):**

Name of Branch/ Subsidiary along with Jurisdiction	Particulars of breach and penalty imposed (in foreign currency)	Date of Breach	Amount of Breach (in foreign currency)	Action initiated by the Bank

**Annexure – A****Calculation of the cap on Level 2 assets with regard to short-term securities financing transactions**

This annex seeks to clarify the appropriate method for the calculation of the cap on Level 2 (including Level 2B) assets with regard to short-term securities financing transactions.

The calculation of the 40% cap on Level 2 assets should take into account the impact on the stock of HQLA of the amounts of Level 1 and Level 2 assets involved in secured funding, secured lending and collateral swap transactions maturing within 30 calendar days. The maximum amount of adjusted Level 2 assets in the stock of HQLA is equal to two-thirds of the adjusted amount of Level 1 assets after haircuts have been applied. The calculation of the 40% cap on Level 2 assets will take into account any reduction in eligible Level 2B assets on account of the 15% cap on Level 2B assets.

Further, the calculation of the 15% cap on Level 2B assets should take into account the impact on the stock of HQLA of the amounts of HQLA assets involved in secured funding, secured lending and collateral swap transactions maturing within 30 calendar days. The maximum amount of adjusted Level 2B assets in the stock of HQLA is equal to 15/85 of the sum of the adjusted amounts of Level 1 and Level 2 assets, or, in cases where the 40% cap is binding, up to a maximum of 1/4 of the adjusted amount of Level 1 assets, both after haircuts have been applied.

The adjusted amount of Level 1 assets is defined as the amount of Level 1 assets that would result after unwinding those short-term secured funding, secured lending and collateral swap transactions involving the exchange of any HQLA for any Level 1 assets (including cash) that meet, or would meet if held unencumbered, the operational requirements for HQLA set out in [Annexure C](#). The adjusted amount of Level 2A assets is defined as the amount of Level 2A assets that would result after unwinding those short-term secured funding, secured lending and collateral swap transactions involving the exchange of any HQLA for any Level 2A assets that meet, or would meet if held unencumbered, the operational requirements for HQLA set out in paragraphs [Annexure C](#). The adjusted amount of Level 2B assets is defined as the amount of Level 2B assets that would result after unwinding those short-term secured funding, secured lending and collateral swap transactions involving the exchange of any HQLA for any Level 2B assets that meet, or would meet if held unencumbered, the operational requirements for HQLA set out in [Annexure C](#). In this context, short-term transactions are transactions with a maturity date up to and including 30 calendar days. Relevant haircuts would be applied prior to calculation of the respective caps.

The formula for the calculation of the stock of HQLA is as follows:

Stock of HQLA = Level 1 + Level 2A + Level 2B – Adjustment for 15% cap – Adjustment for 40% cap

Where:

Adjustment for 15% cap = Max (Adjusted Level 2B – 15/85\*(Adjusted Level 1 + Adjusted Level 2A), Adjusted Level 2B - 15/60\*Adjusted Level 1, 0)



Adjustment for 40% cap = Max ((Adjusted Level 2A + Adjusted Level 2B – Adjustment for 15% cap) - 2/3\*Adjusted Level 1 assets, 0)

Alternatively, the formula can be expressed as:

Stock of HQLA = Level 1 + Level 2A + Level 2B – Max ((Adjusted Level 2A+Adjusted Level 2B) – 2/3\*Adjusted Level 1, Adjusted Level 2B – 15/85\*(Adjusted Level 1 + Adjusted Level 2A), 0)

## Characteristics of HQLA

Assets are considered to be HQLA if they can be easily and immediately converted into cash at little or no loss of value. The liquidity of an asset depends on the underlying stress scenario, the volume to be monetized and the timeframe considered. Nevertheless, there are certain assets that are more likely to generate funds without incurring large discounts in sale or repurchase agreement (repo) markets due to fire-sales even in times of stress. This section outlines the factors that influence whether or not the market for an asset can be relied upon to raise liquidity when considered in the context of possible stresses. These factors should assist in determining which assets, despite meeting the criteria, are not sufficiently liquid in private markets to be included in the stock of HQLA.

### (i) Fundamental characteristics

- **Low risk:** assets that are less risky tend to have higher liquidity. High credit standing of the issuer and a low degree of subordination increase an asset's liquidity. Low duration, low legal risk, low inflation risk and denomination in a convertible currency with low foreign exchange risk all enhance an asset's liquidity.
- **Ease and certainty of valuation:** an asset's liquidity increases if market participants are more likely to agree on its valuation. Assets with more standardized, homogenous and simple structures tend to be more fungible, promoting liquidity. The pricing formula of a high-quality liquid asset must be easy to calculate and not depend on strong assumptions. The inputs into the pricing formula must also be publicly available. In practice, this should rule out the inclusion of most structured or exotic products.
- **Low correlation with risky assets:** the stock of HQLA should not be subject to wrong-way (highly correlated) risk. For example, assets issued by financial institutions are more likely to be illiquid in times of liquidity stress in the banking sector.
- **Listed on a developed and recognized exchange:** being listed increases an asset's transparency.

### (ii) Market-related characteristics

- **Active and sizable market:** the asset should have active outright sale or repo markets at all times. This means that:
  - There should be historical evidence of market breadth and market depth. This could be demonstrated by low bid-ask spreads, high trading volumes, and a large and diverse number of market participants. Diversity of market participants reduces market concentration and increases the reliability of the liquidity in the market.
  - There should be robust market infrastructure in place. The presence of multiple committed market makers increases liquidity as quotes will most likely be available for buying or selling HQLA.

- **Low volatility:** Assets whose prices remain relatively stable and are less prone to sharp price declines over time will have a lower probability of triggering forced sales to meet liquidity requirements. Volatility of traded prices and spreads are simple proxy measures of market volatility. There should be historical evidence of relative stability of market terms (e.g. prices and haircuts) and volumes during stressed periods.
- **Flight to quality:** historically, the market has shown tendencies to move into these types of assets in a systemic crisis. The correlation between proxies of market liquidity and banking system stress is one simple measure that could be used.

\*\*\*\*\*

## Operational Requirements of HQLA

All assets in the stock of HQLA are subject to the following operational requirements. The purpose of the operational requirement is to recognize that not all assets permitted as Level 1 and Level 2 assets (that meet the asset class, risk weighting and credit rating criteria) shall be eligible for the stock of HQLA as there are other operational restrictions.

These operational requirements are designed to ensure that the stock of HQLA is managed in such a way that the bank can, and is able to demonstrate that it can, immediately use the stock of assets as a source of contingent funds that is available for the bank to convert into cash through outright sale or repo, to fill funding gaps between cash inflows and outflows at any time during the 30-day stress period, with no restriction on the use of the liquidity generated.

- i. A bank should periodically monetize a representative proportion of the assets in the stock through repo or outright sale, in order to test its access to the market, the effectiveness of its processes for monetization, the availability of the assets, and to minimize the risk of negative signaling during a period of actual stress.
- ii. All assets in the stock should be unencumbered. “Unencumbered” means free of legal, regulatory, contractual or other restrictions on the ability of the bank to liquidate, sell, transfer, or assign the asset. An asset in the stock should not be pledged (either explicitly or implicitly) to secure, collateralize or credit-enhance any transaction, nor be designated to cover operational costs (such as rents and salaries). Assets received in reverse repo and securities financing transactions that are held at the bank, have not been rehypothecated, and are legally and contractually available for the bank's use can be considered as part of the stock of HQLA. In addition, assets which qualify for the stock of HQLA that have been pre-positioned or deposited with, or pledged to, the central bank or a public sector entity (PSE) but have not been used to generate liquidity may be included in the stock.
- iii. A bank should exclude from the stock those assets that, although meeting the definition of “unencumbered” as specified in (ii) above, the bank would not have the operational capability to monetize to meet outflows during the stress period. Operational capability to monetize assets requires having procedures and appropriate systems in place, including providing the function identified in point (iv) below with access to all necessary information to execute monetization of any asset at any time. Monetization of the asset must be executable, from an operational perspective, in the standard settlement period for the asset class.
- iv. The stock should be under the control of the function charged with managing the liquidity of the bank (e.g. ALCO, the treasurer etc.), meaning the function has the continuous authority, and legal and operational capability, to monetise any asset in the stock. Control must be evidenced either by maintaining assets in a separate pool managed by the function with the sole intent for use as a source of contingent funds, or by demonstrating that the function can monetise the asset at any point in the 30-day stress period and that the proceeds of doing so are available to the function throughout the 30-day stress period without directly conflicting with a stated business or risk management strategy. For example, an asset should not be included in the stock if the sale of that asset, without replacement throughout the 30-day period, would remove a hedge that would create an open risk position in excess of internal limits.

- v. A bank is permitted to hedge the market risk associated with ownership of the stock of HQLA and still include the assets in the stock. If it chooses to hedge the market risk, the bank should take into account (in the market value applied to each asset) the cash outflow that would arise if the hedge were to be closed out early (in the event of the asset being sold).
- vi. A bank should monitor the legal entity and physical location where collateral is held and how it may be mobilized in a timely manner. Specifically, it should have a policy in place that identifies legal entities, geographical locations, currencies and specific custodial or bank accounts where HQLA are held. In addition, the bank should determine whether any such assets should be excluded for operational reasons and therefore, have the ability to determine the composition of its stock on a daily basis.
- vii. Where a bank maintains HQLA in its overseas branch to meet the liquidity requirements imposed by the host supervisory authority, the eligible stock of HQLA held by the overseas branch shall be counted towards the stock of HQLA for purposes of computing the banking institution's entity and consolidated level LCR, up to the total net cash outflows for the branch.
- viii. Where a bank maintains HQLA in a subsidiary (which is not consolidated) to meet the liquidity requirements imposed either by the Bank or another supervisory authority of the subsidiary, the eligible stock of HQLA held by the subsidiary shall be counted towards the stock of HQLA for purposes of computing the banking institution's consolidated level LCR, up to the total net cash outflows for the subsidiary.
- ix. A bank shall recognize excess HQLA (e.g. assets held over and above the total net cash outflows of the branch or subsidiary) only if these assets are not: (i) subject to restrictions which impede the transferability of the HQLA and/or the liquidity generated from the HQLA between the bank and the foreign branch or subsidiary (e.g. ring-fencing measures, non-convertibility of local currency, foreign exchange controls); and (ii) encumbered based on the considerations set out in above paragraphs.
- x. The bank shall exclude from the stock of HQLA those eligible assets for which large, deep and active repo market does not exist as the monetisation of such assets through outright sale may lead to large fire-sale discounts.
- xi. Banks should not include in the stock of HQLA any assets, or liquidity generated from assets, they have received under right of rehypothecation, if the beneficial owner has the contractual right to withdraw those assets during the 30-day stress period.
- xii. Assets received as collateral for derivative transactions that are not segregated and are legally able to be rehypothecated may be included in the stock of HQLA provided that the bank records appropriate outflow for the associated risks as set out in "Derivative Cash outflows".

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**Annexure - D**

**Criteria for operational deposits generated by clearing, custody and cash management activities**

1. In order to qualify for 25% run-off factor, the clearing, custody and cash management activities (see definitions below) of the bank should meet the following criteria:
  - The customer is reliant on the bank to perform these services as an independent third party intermediary in order to fulfill its normal banking activities over the next 30 days. For example, this condition would not be met if the bank is aware that the customer has adequate back-up arrangements.
  - These services must be provided under a legally binding agreement to institutional customers.
  - The termination of such agreements shall be subject either to a notice period of at least 30 days or significant switching costs (such as those related to transaction, information technology, early termination or legal costs) to be borne by the customer if the operational deposits are moved before 30 days.
2. Qualifying operational deposits generated by such an activity are ones where:
  - The deposits are by-products of the underlying services provided by the banking organization and not sought out in the wholesale market in the sole interest of offering interest income.
  - The deposits are held in specifically designated accounts and priced without giving an economic incentive to the customer (not limited to paying market markup rates) to leave any excess funds on these accounts.
3. Excess balances should be treated in the appropriate category for non-operational deposits. If banks are unable to determine the amount of the excess balance, then the entire deposit should be assumed to be excess to requirements and, therefore, considered non-operational.
4. Banks must determine the methodology for identifying excess deposits that are excluded from this treatment. This assessment should be conducted at a sufficiently granular level to adequately assess the risk of withdrawal in an idiosyncratic stress. The methodology should take into account relevant factors such as the likelihood that wholesale customers have above average balances in advance of specific payment needs, and consider appropriate indicators (e.g. ratios of account balances to payment or settlement volumes or to assets under custody) to identify those customers that are not actively managing account balances efficiently.
5. Operational deposits would receive a 0% inflow assumption for the depositing bank given that these deposits are required for operational reasons, and are therefore not available to the depositing bank to repay other outflows.

6. Notwithstanding these operational categories, if the deposit under consideration arises out of correspondent banking<sup>25</sup> or from the provision of prime brokerage<sup>26</sup> services, it will be treated as if there were no operational activity for the purpose of determining run-off factors (i.e. 100% run-off rate is to be applied).
7. The following definitions describe the types of activities that may generate operational deposits. A bank should assess whether the presence of such an activity does indeed generate an operational deposit as not all such activities qualify due to differences in customer dependency, activity and practices.
- A clearing relationship, in this context, refers to a service arrangement that enables customers to transfer funds (or securities) indirectly through direct participants in domestic settlement systems to final recipients. Such services are limited to the following activities: transmission, reconciliation and confirmation of payment orders; daylight overdraft, overnight financing and maintenance of post-settlement balances; and determination of intra-day and final settlement positions.
  - A custody relationship, in this context, refers to the provision of safekeeping, reporting, processing of assets or the facilitation of the operational and administrative elements of related activities on behalf of customers in the process of their transacting and retaining financial assets. Such services are limited to the settlement of securities transactions, the transfer of contractual payments, the processing of collateral, and the provision of custody related cash management services. Also included are the receipt of dividends and other income, client subscriptions and redemptions. Custodial services can furthermore extend to asset and corporate trust servicing, treasury, escrow, funds transfer, stock transfer and agency services, including payment and settlement services (excluding correspondent banking), and depository receipts.
  - A cash management relationship, in this context, refers to the provision of cash management and related services to customers. Cash management services, in this context, refers to those products and services provided to a customer to manage its cash flows, assets and liabilities, and conduct financial transactions necessary to the customer's ongoing operations. Such services are limited to payment remittance, collection and aggregation of funds, payroll administration, and control over the disbursement of funds.

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<sup>25</sup> Correspondent banking refers to arrangements under which one bank (correspondent) holds deposits owned by other banks (respondents) and provides payment and other services in order to settle foreign currency transactions (eg so-called nostro and vostro accounts used to settle transactions in a currency other than the domestic currency of the respondent bank for the provision of clearing and settlement of payments).

<sup>26</sup> Prime brokerage is a package of services offered to large active investors, particularly institutional hedge funds. These services usually include: clearing, settlement and custody; consolidated reporting; financing (margin, repo or synthetic); securities lending; capital introduction; and risk analytics