

Guidance Manual for Circular Number 30/2012 Liquidity Regulations at Banks

Introduction and Overview

This manual explains how banks can comply with the requirements of Circular Number 30/2012 on Liquidity Regulations. It should be read in conjunction with the circular.

Banks are inherently illiquid institutions by the virtue of their role in the economy providing maturity transformation (borrow short term and lend long term). The aim of this liquidity regulation is to ensure that banks have a robust liquidity risk management and governance process.

It also ensures that banks are holding sufficient liquid assets to withstand a liquidity stress for at least sufficient time to allow the Central Bank to take action.

This manual follows the circular structure and is set out in three parts:

- 1) Qualitative requirements
- 2) Quantitative requirements:
 - A – Liquid Assets Ratio
 - B – Uses to Stable Resources Ratio (USRR)
 - C – Liquidity Coverage Ratio (LCR)
 - D – Net Stable Funding Ratio (NSFR)
- 3) Reporting requirements

These three pillars cover the key requirements of liquidity risk management and governance framework in Banks.

1) Qualitative requirements

The manual will address each of the qualitative requirements and emphasizes the key expectations that the Central Bank will be covering in it's on and off site examination of banks.

The qualitative rules come into force on 1 January 2013, any bank that expects to be in breach of the regulation when the regulation commences is encouraged to approach the Central Bank with a remediation plan and breaches will be dealt with on case by case basis.

2) Quantitative requirements

There are four ratios under quantitative requirements, two of which are interim ratios until the Basel III ratios agreed by the Basel Committee for Banking Supervision (BCBS) come into force as per the circular.

It may be that some banks will not be equipped to comply with Basel III ratios when they become effective. These banks should approach the Central Bank with their reasons for not being able to comply at least 6 months prior to the effective implementation date of the Basel III ratios. The Central Bank may grant an exemption and defer the implementation date for up to 12 months at a time for a maximum of two times.

Some internationally active banks might wish to move to Basel III LCR and NSFR ratios prior to the dates prescribed in the circular and this manual. In this case the banks should apply to the Central Bank for a waiver from the interim ratios.

The ratios are as follows:

A – Liquid Assets Ratio

This is an interim measure to ensure banks hold sufficient liquid assets until Basel III LCR comes into effect on 1 January 2015. At such time, this ratio will cease to apply. Therefore, the effective dates for this ratio are from 1 January 2013 until 31 December 2014.

The ratio is simple and requires the bank to hold an amount equivalent to 10% of its total balance sheet liabilities in high quality liquid assets, which are: Cash, Central Bank CDs, Federal Government Bonds (when they become available), and all reserves and account balances held at the Central Bank. UAE Local Governments and Public Sector Entities' publicly traded debt that has 0% Risk Weighted under Basel II standardized approach is also eligible but the amount of these securities rated below "A" is limited to 2% of total balance sheet liabilities.

This ratio will be periodically reassessed and if necessary adjusted to reflect the appropriate Central Bank policy.

B – Uses to Stable Resources Ratio (USRR)

This ratio amends and replaces the current Advances to Stable Deposits Ratio. It includes elements of the Basel III Net Stable Funding Ratio (NSFR) (see D below) and aims to ensure banks have sufficient long and medium term funding to cover their long term assets. This ratio also facilitates compliance with the NSFR when it comes into effect on 1 January 2018, when it will replace this ratio.

The USRR comes into effect on 1 June 2013 and is applicable until 31 December 2017 after which the Basel III NSFR commences. This manual includes a detailed description of the ratio and how it is calculated.

C - Liquidity Coverage Ratio (LCR)

This is a short term (30 days) stress test that covers bank specific and market wide stresses. It mirrors Basel III LCR standards and will be effective from 1 January 2015.

The relevant section will provide the definitions and assumptions used in the LCR calibration. Most of these assumptions are taken from the Basel Committee for Banking Supervision (BCBS) document titled “Basel III: International Framework for Liquidity Risk measurement, standards and monitoring “issued December 2010”. The section will also provide guidance over areas where national discretion have been utilised.

This section will be updated with any changes to the Basel III liquidity framework between the date of issuance of this manual and the effective date of the Basel III standards.

D – Net Stable Funding Ratio (NSFR)

This ratio mirrors Basel III NSFR Standard. This is a structural ratio that aims to ensure that the banks have sufficient long term funding beyond the LCR’s 30 day time horizon to meet both the funding of its long term assets and the funding of a portion of contingent liability drawdowns under a period of market wide stress. When it comes into effect, this ratio replaces the Uses to Stable Resources Ratio (USRR). The NSFR comes into effect on 1 January 2018.

The relevant section in this guidance will provide the definitions and the assumptions used in calculating the NSFR, which are mainly taken from the Basel Committee for Banking Supervision (BCBS) document titled “Basel III: International Framework for Liquidity Risk measurement, standards and monitoring “issued December 2010”. It will also provide guidance over areas where national discretion have been utilised.

The section will be updated with any changes to the Basel III liquidity framework between the date of issuance of this manual and the effective date of the Basel III standards.

3) Reporting requirements

This manual includes a reporting template that collects contractual data over the assets and liabilities maturity spectrum. The report will allow the Central Bank to monitor the compliance with the above ratios, maturity mismatch gaps, concentration of funding by source and tenor and to conduct system wide stress testing.

The report should be completed when the Central Bank requires it on an ad hoc basis. A simplified version will be incorporated into the Central Bank’s online reporting system in due course.

Part one: Qualitative Requirements

- 1) The qualitative requirements are based on the Basel Committee on Banking Supervision (BCBS) document titled "Principles for Sound Liquidity Management and Supervision" dated September 2008. We encourage banks to familiarize themselves with this document as it contains useful information.
- 2) The circular requires banks to comply with 12 criteria when setting up their liquidity risk management and governance frameworks. These criteria are essential for a robust framework designed to minimize liquidity risk at banks. These criteria are discussed below in details:

Banks are responsible to manage their liquidity risk in a prudent manner using all available liquidity management tools at their disposal.

- 3) A bank should establish a robust liquidity risk management framework that is well integrated into the bank-wide risk management process. A primary objective of the liquidity risk management framework should be to ensure with a high degree of confidence that the firm is in a position to both address its daily liquidity obligations and withstand a period of liquidity stress affecting its funding sources, the source of which could be bank-specific or market-wide.

The Board of directors bears ultimate responsibility for liquidity risk management within the bank. The board should clearly articulate liquidity risk tolerance for the bank inline with the banks objectives, strategy and overall risk appetite.

- 4) The board of directors is ultimately responsible for the liquidity risk assumed by the bank as well as the manner in which this risk is managed and, therefore, should establish the bank's liquidity risk tolerance.
- 5) Liquidity risk tolerance is defined as the level of liquidity risk that the bank is willing to assume, it should be appropriate for the business strategy of the bank and its role in the financial system and should reflect the bank's financial condition and funding capacity. The tolerance level should ensure that the firm manages its liquidity well in normal times to enable it to withstand a prolonged period of stress. There are a variety of ways in which a bank can express its risk tolerance. For example, a bank may quantify its liquidity risk tolerance in terms of the level of funding gap the bank decides to assume under normal and stressed business conditions for different maturity buckets.

Board members should familiarize themselves with liquidity risk and how it is managed. At least one board member should have detailed understanding of liquidity risks management.

- 6) The board of directors, as a whole, should have a thorough understanding of the close links between funding liquidity risk (capacity to meet expected and unexpected cash

flows without significant interruptions to bank's operations and financial position) and market liquidity risk (the ability to close positions in the market at a reasonable cost). The board should also understand how other risks affect the bank's overall liquidity risk strategy. I.e. how a tighter funding market will impact the bank's liquidity and how other risks, if materialized, could result in a liquidity run on the bank.

- 7) The board should be able to review liquidity reports sent to it by management and identify liquidity concerns and follow up on remedial action undertaken by management. It should also ensure that senior management and appropriate personnel have the necessary expertise and systems to measure and monitor all sources of liquidity risk.
- 8) The board should ensure that senior management translates the strategy into clear policies, controls and procedures.

Senior management is to develop a strategy, policies and practices to manage liquidity risk in accordance with the board of directors' approved risk tolerance and ensure that the bank maintains sufficient liquidity. The bank's strategy should be continually reviewed and compliance should be reported to the board of directors on a regular basis.

- 9) Senior management has an integral role in liquidity risk management as it is responsible to implement the board approved risk appetite.

Strategy

- 10) The strategy should include specific policies on liquidity management, such as:
 - the composition of assets and liabilities;
 - the diversity and stability of funding sources;
 - the approach to managing liquidity in different currencies, across borders, and across business lines and legal entities;
 - the approach to intraday liquidity management; and
 - The assumptions on the liquidity and marketability of assets.
- 11) The strategy should take account of liquidity needs under normal conditions as well as under periods of liquidity stress as a result of firm specific or a market wide crisis and a combination of these two. The strategy may include various high-level quantitative and qualitative targets. The board of directors should approve the strategy and critical policies and practices and review them at least annually.
- 12) The liquidity strategy should be appropriate for the nature, scale and complexity of the bank's activities. In formulating this strategy, the bank should take into consideration

its legal structures, key business lines, the breadth and diversity of markets, products, and jurisdictions in which it operates, and the regulatory requirements it is subject to.

Policies and processes

- 13) Senior management should determine the structure, responsibilities and controls for managing liquidity risk and for overseeing the liquidity positions of all legal entities, branches and subsidiaries in the jurisdictions in which a bank is active, and outline these elements clearly in the bank's liquidity policies. The structure for managing liquidity should take into consideration any legal, regulatory or operational restrictions on the transfer of funds.
- 14) Processes should be in place to ensure that the group's senior management is actively monitoring and quickly responding to all material developments across the group and reporting to the board of directors as appropriate.
- 15) Senior management should have a thorough understanding of the close links between funding liquidity risk and market liquidity risk, as well as how other risks, including credit, market, operational and reputation risks affect the bank's overall liquidity risk strategy.

Market monitoring

- 16) Senior management should closely monitor current trends and potential market developments that may present significant, unprecedented and complex challenges for managing liquidity risk so that they can make appropriate and timely changes to the liquidity strategy as needed.
- 17) Senior management should define the specific procedures and approvals necessary for exceptions to policies and limits, including the escalation procedures and follow-up actions to be taken for breaches of limits.
- 18) Senior management should present to the board regular reports on the liquidity position of the bank. The board should be informed immediately of new or emerging liquidity concerns. These include increasing funding costs or concentrations, the growing size of a funding gap, the drying up of alternative sources of liquidity, material and/or persistent breaches of limits, or a significant decline in the cushion of unencumbered, highly liquid assets. The board should ensure that senior management takes appropriate remedial actions to address the concerns.

Individuals responsible for liquidity management

- 19) The liquidity strategy, key policies for implementing the strategy, and the liquidity risk management structure should be communicated throughout the organisation by senior management. All individuals within business units conducting activities that have a material impact on liquidity should be fully aware of the liquidity strategy and operate under the approved policies, procedures, limits and controls.

- 20) Individuals responsible for liquidity risk management should maintain close links with those monitoring market conditions, as well as with other individuals with access to critical information, such as credit risk managers.
- 21) Individuals with direct responsibility over liquidity risk management at the banks should meet the fit and proper criteria of the Central Bank including appropriate academic qualifications, good character and sound financial position.

Independent oversight

- 22) Senior management should ensure that operationally independent, appropriately trained and competent personnel are responsible for implementing internal controls.
- 23) Independent oversight and verification should be performed by middle office and/or risk management staff who are capable of assessing treasury's adherence to liquidity limits, policies and procedures.
- 24) It is critical that personnel in independent control functions have the skills and authority to challenge information and modeling assumptions provided by business lines. When significant changes impact the effectiveness of controls and revisions or enhancements to internal controls are warranted, senior management should ensure that necessary changes are implemented in a timely manner.
- 25) Internal audit should regularly review the implementation and effectiveness of the agreed framework for controlling liquidity risk.

A bank must incorporate liquidity costs, benefits and risks into the product pricing and approval process for all significant business activities.

- 26) Senior management should appropriately incorporate liquidity costs, benefits and risks in the product pricing, and new product approval process for all significant business activities (both on- and off-balance sheet).
- 27) This quantification of liquidity costs, benefits and risks should incorporate factors related to the anticipated holding periods of assets and liabilities, their market liquidity risk characteristics, and any other relevant factors, including the benefits from having access to relatively stable sources of funding, such as some types of retail deposits.
- 28) The quantification and attribution of these risks should be explicit and transparent at the line management level and should include consideration of how liquidity would be affected under stressed conditions.
- 29) Liquidity risk costs, benefits and risks should be addressed explicitly in the new product approval process.

Banks must have sound processes and systems for identifying, measuring, monitoring and controlling liquidity risk in a timely and accurate manner

A. Identifying liquidity risk

- 30) A bank should define and identify the liquidity risk it is exposed to in all jurisdictions in which it operates directly or through its subsidiaries, branches and related entities. A bank should evaluate each major on and off balance sheet position, including contingent exposures that may affect the bank's sources and uses of funds, and determine how it can affect liquidity risk.
- 31) A bank should consider the interactions between exposures to funding liquidity risk and market liquidity risk¹. A bank that obtains liquidity from capital markets and interbank markets should recognize that these sources may be more volatile than traditional retail deposits. For example, under conditions of stress, investors in money market instruments may demand higher compensation for risk, require roll over at considerably shorter maturities, or refuse to extend financing at all. Moreover, reliance on the full functioning and liquidity of financial markets may not be realistic as asset and funding markets may dry up in times of stress. Market illiquidity may make it difficult for a bank to raise funds by selling assets and thus increase the need for funding liquidity.
- 32) A bank should ensure that assets are prudently valued according to relevant financial reporting and supervisory standards. A bank should fully factor into its risk management the consideration that valuations may deteriorate under market stress, and take this into account in assessing the feasibility and impact of asset sales during stress on its liquidity position.
- 33) A bank should recognize and consider the strong interactions between liquidity risk and the other types of risk to which it is exposed. These include interest rate, credit, operational, legal and reputational risks, which may influence a bank's liquidity profile. Liquidity risk often can arise from perceived or actual weaknesses, failures or problems in the management of other types of risk. A bank should identify events that could have an impact on market and public perceptions about its soundness, particularly in wholesale markets.

B. Measurement of liquidity risk

- 34) Liquidity measurement involves assessing a bank's cash inflows against its outflows and the liquidity value of its assets to identify the potential for future net funding shortfalls. A bank should be able to measure and forecast its prospective cash flows for assets, liabilities, off-balance sheet commitments and derivatives over a variety of time horizons, under normal conditions and under a range of stress scenarios, including scenarios of severe stress. It should also consider funding needs in currencies in which the bank is active and liquidity needs arising from correspondent

¹ See paragraph 6 for definitions of funding liquidity risk and market liquidity risk.

banking and settlement activities. Below is an overview of what is expected under the above mentioned risk drivers.

Future cash flows of assets and liabilities

- 35) A bank should have a robust liquidity risk management framework providing prospective, dynamic cash flow forecasts that include assumptions on the likely behavioral responses of key counterparties to changes in conditions and are carried out at a sufficiently granular level. A bank should make realistic assumptions about its future liquidity needs for both the short- and long-term that reflect the complexities of its underlying businesses, products and markets. The Central Bank reporting format attached to this manual can provide a good starting point.
- 36) A bank should analyse the quality of assets that could be used as collateral, in order to assess their potential for providing secured funding in stressed conditions. A bank also should attempt to manage the timing of incoming flows in relation to known outgoing sources in order to obtain an appropriate maturity distribution for its sources and uses of funds.
- 37) In estimating the cash flows arising from its liabilities, a bank should assess the “stickiness” of its funding sources – that is, their tendency not to run off quickly under stress. In particular, for large wholesale funds providers, both secured and unsecured, a bank should assess the likelihood of roll-over of funding lines and the potential for fund providers to behave similarly under stress, and therefore consider the possibility that secured and unsecured funding might dry up in times of stress. For secured funding with overnight maturity, a bank should not assume that the funding will automatically roll over. In addition, a bank should assess the availability of term funding back up facilities and the circumstances under which they can be utilised. A bank should also consider factors that influence the “stickiness” of retail deposits, such as size, interest-rate sensitivity, geographical location of depositors and the deposit channel (e.g. short term high interest rate promotion).
- 38) Regarding the time horizons over which to identify, measure, monitor and control liquidity risk, a bank should ensure that its liquidity risk management practices integrate and consider a variety of factors. These include vulnerabilities to changes in liquidity needs and funding capacity on an intraday basis; day-to-day liquidity needs and funding capacity over short and medium-term horizons up to one year; longer-term liquidity needs over one year; and vulnerabilities to events, activities and strategies that can put a significant strain on internal cash generation capability.

Sources of contingent liquidity demand

- 39) A bank should identify measure, monitor and control potential cash flows relating to off-balance sheet commitments and other contingent liabilities. This should include a robust framework for projecting the potential consequences of undrawn commitments being drawn, considering the nature of the commitment and credit worthiness of the counterparty, as well as exposures to business and geographical

sectors, as counterparties in the same sectors may be affected by stress at the same time.

- 40) For banks engaged in securitization activities, they should monitor the existence of recourse provisions in asset sales, the extension of liquidity facilities to securitisation vehicles and the early amortization triggers of certain asset securitisation transactions. Banks should also consider the nature and size of the bank's potential non-contractual "obligations", where the support provided to securitisation and conduit programmes is critical to maintaining ongoing access to funding and the bank reputation in the market.
- 42) A bank should incorporate cash flows related to the re-pricing, exercise or maturity of financial derivatives contracts in its liquidity risk analysis, including the potential for counterparties to demand additional collateral in an event such as a decline in the bank's credit rating or creditworthiness or a decline in the price of the underlying asset.

Guarantees and commitments

- 43) Undrawn loan commitments, letters of credit and financial guarantees represent a potentially significant drain of funds for a bank. A bank may be able to ascertain a "normal" level of cash outflows under routine conditions, and then estimate the scope for an increase in these flows during periods of stress. For example, an episode of financial market stress may trigger a substantial increase in the amount of draw downs of letters of credit provided by the bank to its customers. Similarly, liquidity issues can arise when a bank relies on committed lines of credit provided by others.

Currencies in which a bank is active

- 44) A bank should assess its aggregate foreign currency liquidity needs and determine acceptable currency mismatches. A bank should undertake a separate analysis of its strategy for each currency in which it has significant activity, considering potential constraints in times of stress. The size of foreign currency mismatches should take into account: (a) the bank's ability to raise funds in foreign currency markets; (b) the likely extent of foreign currency back-up facilities available in its domestic market; (c) the ability to transfer a liquidity surplus from one currency to another, and across jurisdictions and legal entities; and (d) the likely convertibility of currencies in which the bank is active, including the potential for impairment or complete closure of foreign exchange swap markets for particular currency pairs.
- 45) A bank should be aware of, and have the capacity to manage, liquidity risk exposures arising from the use of foreign currency deposits and short-term credit lines to fund domestic currency assets as well as the funding of foreign currency assets with domestic currency. A bank should take account of the risks of sudden changes in foreign exchange rates or market liquidity, or both, which could sharply widen

liquidity mismatches and alter the effectiveness of foreign exchange hedges and hedging strategies.

Correspondent, custody and settlement activities

- 46) Where relevant, a bank should understand and have the capacity to manage correspondent, custodian and settlement bank services and how they can affect its cash flows. Given that the gross value of customers' payment traffic (inflows and outflows) can be very large, unexpected changes in these flows can result in large net deposits, withdrawals or line-of credit draw-downs that impact the overall liquidity position of the correspondent or custodian bank, both on an intraday and overnight basis. A bank also should understand and have the capacity to manage the potential liquidity needs it would face as a result of the failure-to-settle procedures of payment and settlement systems in which it is a direct participant.

C. Measurement tools

- 47) A bank should employ a range of customised internal measurement tools, or metrics, as there is no single metric that can comprehensively quantify liquidity risk. To obtain a forward looking view of liquidity risk exposures, a bank should use metrics that assess the structure of the balance sheet (e.g. by source and tenor of funding and liquid assets composition) as well as metrics that project cash flows and future liquidity positions, taking into account off-balance sheet risks (liquidity gap reports). These metrics should span vulnerabilities across business-as-usual and stressed conditions over various time horizons.
- 48) Under business-as usual conditions, the report should identify needs that may arise from projected outflows relative to routine sources of funding. Under stress conditions, the reports should be able to identify funding gaps at various horizons, and in turn serve as a basis for liquidity risk limits and early warning indicators.
- 49) The scenarios for the reports can be based on assumptions of the future behavior of assets, liabilities and off-balance sheet items, and then used to calculate the cumulative net excess or shortfall over the time frame for the liquidity assessment. Measurement should be performed over incremental time periods to identify projected and contingent flows taking into account the underlying assumptions associated with potential changes in cash flows of assets and liabilities
- 50) Management should tailor the measurement and analysis of liquidity risk to the bank's business mix, complexity and risk profile.
- 51) A bank should take steps to ensure that its assumptions are reasonable and appropriate, documented and periodically reviewed and approved. They should also be updated inline with changes observed in the market.

D. Monitoring system

- 52) A bank should have a reliable management information system designed to provide the board of directors, senior management and other appropriate personnel with timely and forward-looking information on the liquidity position of the bank.
- 53) The management information system should have the ability to calculate liquidity positions in all of the currencies in which the bank conducts business – both on a subsidiary/branch basis in all jurisdictions in which the bank is active and on an aggregate group basis. It should capture all sources of liquidity risk, including contingent risks and the related triggers and those arising from new activities, and have the ability to deliver more granular and time sensitive information during stress events.
- 54) To effectively manage and monitor its net funding requirements, a bank should have the ability to calculate liquidity positions on an intraday basis, on a day-to-day basis for the shorter time horizons, and over a series of more distant time periods thereafter. The management information system should be used in day-to-day liquidity risk management to monitor compliance with the bank's established policies, procedures and limits.
- 55) To facilitate liquidity risk monitoring, senior management should agree on a set of reporting criteria, specifying the scope, manner and frequency of reporting for various recipients (such as the board, senior management, asset – liability committee) and the parties responsible for preparing the reports.
- 56) Reporting of risk measures should be done on a frequent basis (e.g. daily reporting for those responsible for managing liquidity risk, and at each board meeting during normal times, with reporting increasing in times of stress) and should compare current liquidity exposures to established limits to identify any emerging pressures and limit breaches.

A bank must establish a forward-looking funding strategy that provides effective diversification in the sources and tenor of funding.

- 57) A bank should diversify available funding sources in the short-, medium- and long term. Diversification targets should be part of the medium- to long-term funding plans and is aligned with the budgeting and business planning process.
- 58) Funding plans should take into account correlations between sources of funds and market conditions. The desired diversification should also include limits by counterparty, secured versus unsecured market funding, instrument type, tenor, securitisation vehicle, currency, and geographic market. As a general liquidity management practice, banks should limit concentration in any one particular funding source or tenor.

- 59) For institutions active in multiple currencies, access to diverse sources of liquidity in each currency is required, since banks are not always able to swap liquidity easily from one currency to another.
- 60) Senior management should be aware of the composition, characteristics and diversification of the bank's assets and funding sources. Senior management should regularly review the funding strategy in light of any changes in the internal or external environments.
- 61) An essential component of ensuring funding diversity is maintaining market access. Market access is critical for effective liquidity risk management, as it affects both the ability to raise new funds and to liquidate assets. Senior management should ensure that market access is being actively managed, monitored and tested by the appropriate staff.
- 62) Managing market access can include developing markets for asset sales or strengthening arrangements under which a bank can borrow on a secured or unsecured basis. A bank should maintain an active presence within markets relevant to its funding strategy. This requires an ongoing commitment and investment in adequate and appropriate infrastructures, processes and information collection.
- 63) A bank should not assume it can access markets in a timely manner for which it has not established the necessary systems or documentation, or where these arrangements have not been periodically utilised or the bank has not confirmed that willing counterparties are in place.
- 64) A bank should have full knowledge of the legal framework governing potential asset sales, and ensure that documentation is reliable and legally robust.
- 65) A bank should identify and build strong relationships with current and potential investors. The frequency of contact and the frequency of use of a funding source are two possible indicators of the strength of a funding relationship. A bank should also establish and maintain a relationship with the Central Bank.
- 66) A bank needs to identify alternative sources of funding that strengthen its capacity to withstand a variety of severe yet plausible institution-specific and market-wide liquidity shocks. Depending on the nature, severity and duration of the liquidity shock, potential sources of funding include the following:
- Deposit growth.
 - The lengthening of maturities of liabilities.
 - New issues of short- and long-term debt instruments.

- Intra-group fund transfers, new capital issues, the sale of subsidiaries or lines of business.
- Asset securitisation.
- The sale or repo of unencumbered, highly liquid assets.
- Drawing-down committed facilities.
- Borrowing from the central bank's marginal lending facilities.

A Bank must establish a liquidity risk management framework including limits, warning indicators, communication and escalation procedures.

Setting up Limits

- 67) A bank should set limits to control its liquidity risk exposure and vulnerabilities. A bank should regularly review such limits and corresponding escalation procedures. Limits should be relevant to the business in terms of its location, complexity, and nature of products, currencies and markets served.
- 68) Limits should be used for managing day-to-day liquidity within and across lines of business and legal entities under "normal" conditions. The limit framework should also include measures aimed at ensuring that the bank can continue to operate in a period of market stress, bank-specific stress and a combination of the two.

For example a commonly used simple limit is the size of cumulative net cash outflow (based on board approved assumptions) and covers various time horizons. The limit may also include estimates of outflows resulting from the drawdown of commitments or other obligations of the bank.

Early warning indicators

- 69) A bank should design a set of indicators to aid this process to identify the emergence of increased risk or vulnerabilities in its liquidity risk position or potential funding needs. Such early warning indicators should identify any negative trend and cause an assessment and potential response by management in order to mitigate the bank's exposure to the emerging risk.
- 70) Early warning indicators can be qualitative or quantitative in nature and may include but are not limited to:
- Rapid asset growth, especially when funded with potentially volatile liabilities.
 - Growing concentrations in assets or liabilities.

- Increases in currency mismatches.
- A decrease of weighted average maturity of liabilities.
- Repeated incidents of positions approaching or breaching internal or regulator limits.
- Negative trends or heightened risk associated with a particular product line, such as rising delinquencies.
- Significant deterioration in the bank's earnings, asset quality, and financial condition.
- Negative publicity.
- A credit rating downgrade.
- Stock price declines or rising debt costs.
- Widening debt or credit-default-swap spreads.
- Rising wholesale or retail funding costs.
- Counterparties that begin requesting or request additional collateral for credit.
- Correspondent banks that eliminate or decrease their credit lines.
- Increasing retail deposit outflows.
- Increasing redemptions of CDs before maturity.
- Difficulty accessing longer-term funding.

71) Early warning indicators should be closely monitored by senior management on a regular basis. Limits and analysis of the indicators above should be reviewed and breaches/emerging trends should be escalated up to the board committees or the full board if significant enough.

72) Clear procedures and escalation criteria should be put in place based on the warning indicators; these include the circumstances where the Contingency Funding Plan (CFP) should be invoked.

A bank must conduct its own internal stress tests on a regular basis for a variety of institution specific and market wide stress scenarios (individually and in combination). The scenarios should be based on the individual bank specific circumstances and business model.

73) While a bank typically manages liquidity under “normal” circumstances, it should also be prepared to manage liquidity under stressed conditions. A bank should perform stress tests or scenario analyses on a regular basis in order to identify and quantify its exposures to possible future liquidity stresses, analysing possible impacts on the institution’s cash flows, liquidity position, profitability and solvency.

74) *Stress testing process*

- Test should be done on individual entity basis, group basis and business lines.
- Tests should consider the implication of the scenarios across different time horizons, including on an intraday basis.
- The extent and frequency of testing should be commensurate with the size of the bank and its liquidity risk exposures.
- Banks should build in the capability to increase the frequency of tests in special circumstances, such as in volatile market conditions or at the request of the Central Bank.
- Senior management should be actively involved in the stress test demanding rigorous assumptions and challenging the results.
- The board should be informed of the stress testing results and should be able to challenge outcomes, assumptions and actions taken on the basis of the tests.

Scenarios and assumptions

75) Banks should take into account the nature of the bank’s business, activities and vulnerabilities in designing stress scenarios. The scenarios should incorporate the major funding and market liquidity risks to which the bank is exposed. These include risks associated with its business activities, products (including complex financial instruments and off-balance sheet items) and funding sources. The defined scenarios should allow the bank to evaluate the potential adverse impact these factors can have on its liquidity position. Regardless of how strong its current liquidity situation appears to be, a bank should consider the potential impact of severe stress scenarios.

76) Historical data and past experiences in addition to sound judgment should be used in the scenarios. A bank should consider short-term and long term stresses as well as institution-specific and market-wide scenarios and a combination of both in the stress tests scenarios. The stress test scenarios should consider the following:

- A simultaneous drying up of market liquidity in several previously highly liquid markets (inter bank money markets, non UAE funding markets, securitisation).
- Severe constraints in accessing secured and unsecured wholesale funding;
- The run-off of retail funding
- Contingent claims and more specifically, potential draws on committed lines extended to third parties or the bank's subsidiaries, branches or head office and the liquidity absorbed by off-balance activities.
- Severe operational or settlement disruptions affecting one or more payment or settlement systems.
- Take into account the link between reductions in market liquidity and constraints on funding liquidity. This is particularly important for banks with significant market share in, or heavy reliance upon, specific funding markets.
- A bank should also consider the results of stress tests performed for various other risk types and consider possible interactions between liquidity risk and these other types of risk (e.g. capital stress tests).
- Tests should reflect accurate time-frames for the settlement cycles of assets that might be liquidated (i.e. time to receive the sale proceeds).
- If a bank relies upon liquidity outflows from one system to meet obligations in another, it should consider the risk that operational or settlement disruptions might prevent or delay expected flows across systems. This is particularly relevant for firms relying upon intra-group transfers or centralised liquidity management.
- Additional margin calls and collateral requirements.
- The availability of contingent lines extended to the bank.
- The impact of credit rating triggers.
- The access to Central Bank facilities.
- The potential reputational impact when executing contingency /remedial action.
- Estimates of future balance sheet growth.
- A bank should consider the likely behavioural response of other market participants (similar response to market stress might amplify market strain).

- A bank should consider the likely impact of its own behaviour on other market participants.
- Where a bank uses a correspondent or custodian to conduct settlement, the analysis should include the impact of those agents restricting their provision of intraday credit.

The scenario design should be subject to regular reviews to ensure that the nature and severity of the tested scenarios remain appropriate and relevant to the bank.

Utilisation of results

- 77) Senior management should review stress test scenarios and assumptions as well as the results of the stress tests. The bank's choice of scenarios and related assumptions should be well documented and reviewed together with the stress test results. Stress test results and vulnerabilities and any resulting actions should be reported to and discussed with the board and the Central Bank.
- 78) Senior management should integrate the results of the stress testing process into the bank's strategic planning process (e.g. bank management could adjust its asset-liability composition) and the firm's day-to-day risk management practices (e.g. through monitoring sensitive cash flows or reducing concentration limits). The results of the stress tests should be explicitly considered in the setting of internal limits.
- 79) Senior management should decide how to incorporate the results of stress tests in assessing and planning for related potential funding shortfalls in the institution's contingency funding plan. To the extent that projected funding deficits are larger than (or projected funding surpluses are smaller than) implied by the bank's liquidity risk tolerance, management should consider whether to adjust its liquidity position or to bolster the bank's contingency plan in consultation with the board.

A bank must have a formal contingency funding plan (CFP) that clearly sets out the strategies for addressing liquidity shortfalls in emergency situations.

- 80) A bank should put in place plans for responding to severe disruptions to its ability to fund some or all of its activities in a timely manner and at a reasonable cost.

CFPs should have the following characteristics.

- Be commensurate with a bank's complexity, risk profile, scope of operations and role in the financial systems in which the bank operates.
- Include a clear description of a diversified set of contingency measures for preserving liquidity and making up cash flow shortfalls in various adverse situations.
- CFP should articulate available potential contingency funding sources and the amount of funds a bank estimates can be derived from these sources; clear

escalation/prioritisation procedures detailing when and how each of the actions can and should be activated; and the lead time needed to tap additional funds from each of the contingency sources.

- The CFP's design, plans and procedures should be closely integrated with the firm's ongoing analysis of liquidity risk and with the results of the scenarios and assumptions used in stress tests (requirement 9).
- CFPs should prepare the bank to manage a range of scenarios of severe liquidity stress that include both firm-specific and more generalised market-wide stress, as well as the potential interaction between them.
- The plan should include a diversified menu of options in order for management to have an overview of the potentially available contingency measures. Banks should also examine the time periods for which measures can be carried out under various assumptions and stresses.
- CFPs should contain clear specification of roles and responsibilities, including the authority to invoke the CFP.
- The establishment of a formal "crisis team" should facilitate internal coordination and decision-making during a liquidity crisis; names and contact details of members of the team responsible for implementing the CFP and the locations of team members; and the designation of alternates for key roles should also be clearly stated.
- To facilitate the timely response needed to manage disruptions, the plan should set out a clear decision-making process on what actions to take at what time, who can take them, and what issues need to be escalated to more senior levels in the bank.
- The plan should explicitly set out the procedures to deliver effective internal coordination and communication across the bank's different business lines and locations. It should also address when and how to contact external parties, the Central Bank, stakeholders, market participants, and the media.
- A bank's CFP (as well as the bank's day-to-day liquidity risk management) should reflect Central Bank lending programmes and collateral requirements.
- The plan should be reviewed and tested regularly to ensure their effectiveness and operational feasibility timely action should be taken by management to remedy any issue identified. Key aspects of this testing include:
 - ensuring that roles and responsibilities are appropriate and understood,
 - confirming that contact information is up to date,
 - proving the transferability of cash and collateral,
 - reviewing that the necessary legal and operational documentation is in place to execute the plan at short notice,

- The ability to sell or repo certain assets or periodically draw down credit lines.
- Senior management should review and update the CFP at least every year for the board's approval, or more often as business or market circumstances change.
- The CFP should be consistent with the bank's business continuity plans and should be operational under situations where business continuity arrangements have been invoked.

A Bank must maintain a cushion of unencumbered, high quality liquid assets to be held as insurance against a range of liquidity stress scenarios.

- 81) Although the predefined stress test in the LCR will result in a regulatory liquid asset requirement to be held by the bank to cover the stressed outflows, the bank should assess the need for holding liquid assets that can be sold or pledged to obtain funds in a range of stress scenarios beyond the regulatory minimum established by the LCR.
- 82) The internal stress testing referred to in requirement 9 above should be used to determine the size and composition of the liquid asset pool required to maintain sufficient resilience to unexpected stress while the bank continues to meet its daily payment and settlement obligations on a timely basis for the duration of the stress
- 83) The liquidity cushion should include cash and high quality government bonds or similar instruments, to guard against the most severe stress scenarios. For insuring against less intense, but longer duration stress events, a bank may choose to widen the composition of the cushion to hold other unencumbered liquid assets which are marketable
- 84) A bank should be realistic about how much cash it will be able to obtain from the Central Bank against eligible assets. Moreover, a bank should not rely on the Central Bank altering the amount of or the terms on which it provides liquidity.

Banks are required to develop a transfer-pricing framework to reflect the actual cost of funding.

- 85) Senior management should appropriately incorporate liquidity costs, benefits and risks in the internal pricing and performance measurement for all significant business activities (both on- and off-balance sheet). The sophistication of the transfer pricing framework should be inline with the bank level of sophistication and business complexity.
- 86) These costs, benefits and risks should then be explicitly attributed to the relevant activity so that line management incentives are consistent with and reinforce the overarching liquidity risk tolerance and strategy of the bank, with a liquidity charge assigned as appropriate to positions, portfolios, or individual transactions.

- 87) This assignment of liquidity costs, benefits and risks should incorporate factors related to the anticipated holding periods of assets and liabilities, their market liquidity risk characteristics, and any other relevant factors, including the benefits from having access to relatively stable sources of funding, such as some types of retail deposits.
- 88) The quantification and attribution of these risks should be explicit and transparent at the line management level and should include consideration of how liquidity would be affected under stressed conditions.
- 89) The analytical framework should be reviewed as appropriate to reflect changing business and financial market conditions and so maintain the appropriate alignment of incentives.

Part Two: Quantitative Requirements

A) Liquid Assets Ratio

This is an interim measure to ensure banks hold liquid assets until the Basel III LCR comes into effect on 1 January 2015. At such time, this ratio will cease to apply. Therefore, the effective dates for this ratio are from 1 January 2013 until 31 December 2014.

The ratio is simple and requires the bank to hold an amount equivalent to 10% of its total balance sheet liabilities in high quality liquid assets, which are: Cash, Central Bank CDs, Federal Government Bonds (when they become available), and all reserves and account balances held at the Central Bank. UAE Local Governments and Public Sector Entities' publicly traded debt that has 0% Risk Weighted under Basel II standardized approach is also eligible but the amount of these securities rated below "A" is limited to 2% of total balance sheet liabilities.

This ratio will be periodically reassessed and if necessary adjusted to reflect the appropriate Central Bank policy.

B) Uses to Stable Resources Ratio (USRR)

Introduction

99) This ratio is based on the current advances to stable deposits ratio which was reviewed to include a number of adjustments taken from the Basel III Net Stable Funding Ratio (NSFR). Key characteristics of this ratio are:

- A clear distinction between wholesale and retail deposits.
- Better differentiation of liabilities based on more granular maturity buckets.
- Penalize short term wholesale funding while rewarding long term and retail funding.
- Treat inter bank deposits the same as W/S deposits. (Interim assumption)

100) The Central Bank expects that this ratio will be subject to an annual review and will be revised over time to facilitate compliance with the Basel III Net Stable Funding Ratio by 1 January 2018.

101) The USRR comes into effect on 1 June 2013. Below is a detailed description of the ratio and how it is calculated.

Calculation of USRR

102) The Uses to Stable Resources Ratio is calculated by dividing the uses of funds by the stable funding resources. The ratio should always be less than 100%.

$$\frac{\text{Uses of Fund}}{\text{Stable Funding Resources}} < 100\%$$

Uses of funds

103) The following assets categories are assigned 100% funding usage factor

- Loans and advances
- Illiquid Assets

104) Illiquid Investments includes all securities and investments that are deemed to be not liquid. Liquidity, in this case, applies to the presence of **all** the following characteristics:

1. An active secondary or repurchase market.
2. In the case of debt or hybrid instruments an investment grade (BBB-/Baa3) or better.
3. The ability to turn the instrument/investment into cash within 7 days.

For the purpose of defining liquid assets, all securities issued or explicitly guaranteed by UAE Federal Government or Local Governments are deemed to be liquid and no stable funding is required against them.

105) The following assets categories are assigned 85% funding usage factor

- Net bank placements² maturing over three months.

106) The following assets categories are assigned 60% funding usage factor

- Net bank placements (see footnote 2) maturing between 1 and 3 months

107) Net bank placement maturing in less than 1 month receives 0% usage factor.

² Net inter bank placements refer to inter bank placements in the maturity bucket. For example interbank loans maturing over 3 months less inter bank borrowings over 3 months. If the net is positive then this amount requires 85% stable funding.

Sources of Funds

108) The following sources of funds are assigned a stability factor of 100%

- Capital plus provisions less (fixed assets, Investments in subsidiaries and affiliates, Goodwill, and own shares).
- Net interbank³ deposits with maturity over 3 months.
- All liabilities with maturity over 3 months.

109) The following sources of funds are assigned a stability factor of 90%

- All Retail deposits⁴ with a remaining maturity of less than 3 months.
- SME⁵ deposits less than AED 20 million (on an account level⁶) with a remaining maturity of less than 3 months.

110) The following sources of funds are assigned a stability factor of 85%.

- Operational wholesale deposits from non financial intuitions maturing in less than 3 months.

Operational refers to deposits sourced from a legal entity (including SMEs deposits over AED 20 Million) where:

- 1) There is an established relationship with the bank for over 1 year and.
- 2) The customer is reliant on the bank to perform payments, collections, cash management and payroll.

³ Net inter bank deposits refer to the net inter bank placements in the maturity bucket. For example inert bank placements with maturity over 3 months less inter bank borrowings with maturity over 3 months. If the net is negative then this amount provides 100% stable funding.

⁴ Retail deposits are defined as deposits from individuals regardless of the amount.

⁵ Small and medium enterprises refer to legal entities that have an annual turn over of less than AED 75 million.

⁶ The AED 20 million limit is to be determined on an account level for operational reasons. However, any deliberate manipulation by banks (such as encouraging customers to open multiple accounts with no business reason) will result in all SME deposits being treated as over AED20 million for the purpose of this regulation.

- 3) The customer is not a financial institutions (i.e. not banks, insurance companies, brokers and their affiliates)
- 4) The deposit (or account balances) placed with the bank by the customer is not subject to competitive bids for its renewal.

It is understood that exact segregation of operational and non operational accounts is operationally challenging for banks. The Central Bank expects banks to use their best endeavors and sound judgment in the process. Any deliberate manipulation of the classification will result in all at call wholesale deposits being classified as non operational.

- No more than 60% of wholesale deposits (including SMEs over AED 20 million) maturing within 3 months can be classified as operational.

111) The following sources of funds are assigned a stability factor of 70%.

- Net interbank deposits (refer footnote 3) with a remaining maturity of more than 1 month but less than 3 months.
- Non operational wholesale liabilities⁷ with a remaining maturity of more than 1 month but less than 3 months.
- Non operational SME deposits over AED 20 million (refer footnotes 5&6) with a remaining maturity of more than 1 month but less than 3 months.

112) The following sources of funds are assigned a stability factor of 50%.

- Non operational wholesale liabilities with a remaining maturity of less than 1 month.
- Non operational SME deposits over AED 20 million (refer footnotes 5&6) with a remaining maturity of less than 1 month. (Including non-operational current and saving accounts)

113) Interbank funding less than 1 month receives 0% stability factor.

⁷ Wholesale liabilities refer to corporate Term Deposits, Negotiable Certificates of Deposit, Medium Term Notes, Extendable commercial Paper and Bonds.

The table below provides a summary of the USRR.

Uses Of Funds	
Loans And Advances (Gross of Provisions)	100%
Illiquid Investments	100%
Net Inter-Bank (Placements) with:	
Maturity over 3 months (net lender in this bucket)	85%
Maturity between 1 and 3 months (net lender in this bucket)	60%
Maturity less than 1 month (net lender in this bucket)	0%
Total Uses of Funds	
Sources of Funds	
Capital	100%
<i>Add</i>	
Total Provisions	100%
<i>Less</i>	
Fixed Assets	deducted
Investments in Subsidiaries and affiliates	deducted
Goodwill	deducted
Own Shares held by the bank	deducted
Net capital allowed for funding	100%
Net Inter-Bank (Deposits) <i>with:</i>	
Maturity Less than 1 month (net borrower in this bucket)	0%
Maturity between 1 to 3 months (net borrower in this bucket)	70%
Maturity over 3 months (net borrower in this bucket)	100%
ALL (both retail and wholesale) Deposits with a remaining maturity over 3 months	100%
All Retail deposits with a remaining maturity of less than 3 months (Including SME less than AED 20 Million)	90%
Operational wholesale and SME (Over AED 20 Mio) deposits that are maturing in less than 3 months (Max 60% of total)	85%
Non operational wholesale and SME deposits (Over AED 20 Million) with a remaining maturity of more than 1 month but less than 3 months	70%
Non operational wholesale and SME deposits (Over AED 20 Million) with a remaining maturity of Less than 1 month	50%
Total Sources of Funds	
Uses of Funds/ Stable Resources of Funds	<=100

C) Liquidity Coverage Ratio (LCR)

- 90) The LCR ratio is based on Basel III recommendations. It is therefore recommended that banks familiarize themselves with the BCBS final recommendations on liquidity titled “Basel III: International Framework for Liquidity Risk measurement, standards and monitoring “issued December 2010”.
- 115) LCR is a coverage ratio of liquid assets to net cash outflows. It represents a 30 days stress scenario with combined assumptions covering both bank specific and market wide stresses. Therefore, the LCR aims to promote short-term resilience of a bank’s liquidity risk profile by ensuring that it has sufficient high-quality liquid assets to survive a significant stress scenario lasting for one month.
- 116) The LCR assumptions are applied to contractual data representing the main liquidity risk drivers (liabilities and contingent liabilities) at banks to determine the total cash outflows within the 30 days stress period.
- 117) Total cash inflow is also calculated based on assumptions applied to contractual inflows during the 30 day period. The total cash outflow is then reduced by the total cash inflow to arrive at the net cash outflow in 30 days. A cap on the amount of inflows that can be used to offset outflows is set at 75% of the outflows⁸.

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

- 118) Banks should always be able to cover the net cash outflow with eligible liquid assets at the minimum LCR determined by the Central Bank.

$$\text{Central Bank required LCR} < \frac{\text{Eligible Liquid Assets.....}}{\text{Total Net Cash outflow over the next 30}}$$

day period

Current LCR and expected glide path

- 119) The minimum requirement for the LCR is 100%⁹. Banks are expected to be compliant from the effective date of 1 January 2015 using the assumptions and calibration prescribed by the Central Bank.

In the meantime, these assumptions will be constantly reviewed and, if necessary, updated in response to changes in Basel III standards.

⁸ The 75% max reduction limit is to ensure that the banks always have a net cash outflow of at least 25% which they are required to hold liquid assets against.

⁹ Banks will be given official notice of changes in the minimum LCR

The Central Bank will set up a liquidity task force to ensure a smooth implantation of the LCR by its implementation date. The team will visit banks and request a “road map” with clear millstones explaining how the bank will meet the LCR and the NSFR by their respective due dates. The team will then assess the plan and provide guidance. The team will also monitor the progress of the bank against its internally set milestones.

Eligible Liquid Assets

- 120) Eligible liquid assets are strictly defined in the LCR to ensure that these assets remain liquid¹⁰ under severe stress scenarios both firm specific and market wide. It is worth mentioning that the asset that is usually liquid under normal conditions might not be liquid under a severe stress scenario.
- 121) Eligible liquid assets are separated into two categories, Tier 1 and Tier 2 liquid assets. Tier 1 liquid assets are allowed with no haircuts and no cap applied to them given their superior liquidity at all times. These assets are:
- Cash at Central Bank and physical cash at the bank.
 - Reserves and account balances held at the Central Bank
 - Central Bank CDs and all debt issued or explicitly guaranteed by UAE Federal Government or Local Governments.
 - Debt issued by multilateral development banks and the IMF.
 - Foreign Sovereign or Central Bank debt or debt guaranteed receiving 0% Risk Weight under Basel II standardized approach.
 - UAE Public Sector Entities’ (PSE or GRE) debt securities which receive 0% Risk Weight under Basel II Standardized approach
- 122) Tier II eligible liquid assets are highly liquid assets even under a market wide or a bank specific liquidity stress. Never the less, the realizable market value under a liquidity stress might be lower than the normal market value. Tier II assets are allowed up to 40% of eligible liquid assets. The following assets, after being reduced by the corresponding haircuts, are eligible as Tier II liquid assets.

Tier II Eligible liquid assets (Max 40% of Eligible Liquid Assets)	1- Haircut of 15%
Claims issued or guaranteed by Sovereigns, Central banks, PSE’s receiving 20% risk weight under Basel II standardized approach.	85%
Corporate bonds rated (AA- or higher) provided it is not issued by a financial institution or any of its affiliates.	85%
Covered Bonds rated (AA- or higher) provided it is not issued by the	85%

¹⁰ Liquidity is the ability to convert the asset immediately into cash at little or no loss in market value under a liquidity stress.

bank itself or any of its affiliates	
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- 123) Only unencumbered liquid assets that meet the above criteria are eligible for the LCR.
- 124) Banks should endeavor to hold eligible liquid assets in the currencies that match the currencies of the net cash outflow.
- 125) Liquid asset portfolio should be well diversified in terms of counterparties and tenor and held for the sole purpose of managing liquidity risk.

Cash outflows

- 126) Cash outflows are calculated by assigned run off assumptions against various liabilities both on and off balance sheet.

Liabilities maturing outside the 30 days stress period - 0% run off

- 127) All liabilities that have a contractual maturity over 30 days and where the bank is not contractually obliged to pay the customer before the maturity date receive 0% run off.
- 128) Where the bank has guaranteed payment to the customer prior to maturity upon request, the liability is treated as being contractually due immediately and is subject to the applicable run off assumptions listed below.

Retail deposits¹¹

- 129) Retail deposits include both term deposits (maturity over 1 day) and current/savings/at call deposits which banks are under contractual obligation to pay immediately.
- 130) Retail deposits are separated into stable and less stable deposits.

Stable retail deposits receives 5% run off & less stable receives 10% run off

- 131) Current retail deposits are considered stable and therefore receive only 5% run off against them if:
- They are resident deposits and,
 - A relationship with the customer has been well established, for example the customer has been dealing with the bank for over 1 year,
 - The customer uses the account for transactions such as salary being deposited in the account, paying bills and standing orders.

¹¹ Defined as deposits from individuals (natural persons)

- 132) Retail term deposits which are maturing within the 30 day period are classified as stable if:
- They are resident deposits and,
 - A relationship with the customer has been well established, for example the term deposit has a history of being rolled over at maturity with the bank or the relationship has been established for over 1 year with the customer.
- 133) No more than 40% of retail deposits maturing within 30 days can be classified as stable. Any reporting of over 40% of retail deposits maturing within 30 days as stable deposits should receive the approval of the Central Bank in writing.
- 134) All other retail deposits that do not meet the criteria for classification as “stable” are considered less stable retail deposit and receive 10% run off factor against them.
- 135) Deposits from Small and Medium size entities (SMEs)¹² can be treated as retail deposits (and sections (131) to 134) apply to them), if their amount is less than AED 20¹³ Million.

Unsecured deposits from non financial corporates - 75% run off for Non operational & 25% run off for operational.

- 136) Unsecured wholesale deposits (current and term) are deposits from legal entities¹⁴ that are not collateralised by assets owned by the bank and are not sourced from a financial institution¹⁵. It includes deposits sourced from sovereigns, Public Sector or Government Related entities.
- 137) Unsecured wholesale deposits from non financial institutions are separated into operational and non operational wholesale deposits. Operational wholesale deposits have the following characteristics:
- There is an established relationship with the bank for over 1 year and.

¹² Small and medium enterprises refer to legal entities that have an annual turn over of less than AED 75 million

¹³ The AED 20 million limit is to be determined on an account level for operational reasons. However, any deliberate manipulation by banks (such as encouraging customers to open multiple accounts with no business reason) will result in all SME deposits being treated as over AED20 million for the purpose of this regulation.

¹⁴ Excludes SME deposits that fall under 4)135)

¹⁵ Financial institution includes banks, insurance companies, brokers and their affiliates.

- The customer is reliant on the bank to perform payments, clearing, collections, custody, cash management and payroll.

- 138) It is understood that exact segregation of operational and non operational accounts is operationally challenging for banks. The Central Bank expects banks to use their best endeavors and sound judgment in the process. Any deliberate manipulation of the classification will result in all wholesale deposits being classified as non operational.
- 139) No more than 40% of total wholesale deposits maturing in one month can be classified as operational.

Unsecured wholesale funding from financial institutions – Operational 25% run off, Non operational at 100% run off

- 140) This category includes non collateralised deposit sourced from banks, insurance companies, brokers, securities firms (and the affiliates of these companies) as well as NCDs, Bonds, MTNs, CPs and other unsecured debt instruments issued by the bank and are maturing within the 30 day stress period. These are also separated into operational and non operational deposits depending on their characteristics.
- 141) Operational deposits from financial institutions receive 25% run off against them and have the all following characteristics:
- There is an established relationship with the bank for over 1 year.
 - The customer is reliant on the bank to perform payments, clearing, collections, custody, cash management and payroll.
 - The deposits do **not** arise from correspondent banking or from the provision of prime brokerage services.
 - If the deposit placed by a bank receives a 25% run off against it, the depositing bank will receive 0% inflow for it. The Central Bank will ensure this treatment is applied when conducting its onsite and offsite reviews.
- 142) A run off factor of 100% is assigned to all non operational financial services deposits maturing within 30 days and that do not meet the above characteristics.

Secured wholesale funding

- 143) Wholesale funding, that is secured by giving rights to an asset in an insolvency, are assumed to be relatively more stable as the counterparts are likely to renew the funding upon maturity in a stress given the more secured position they enjoy.

- 143) It is important to note that the stability of this funding source depends on the quality of the asset pledged as collateral. The below table shows the run off assumptions applied to wholesale deposits depending on the type of Collateral used.

Collateral securing the maturing wholesale funding	Run off Factor
Tier 1 Liquid Asset	0%
Tier 2 Liquid Assets	15%
Transactions with sovereigns, central banks, PSEs, GREs that are not backed by Tier 1 or Tier 2 assets. (PSEs and GREs that receive this treatment should have a risk weight of 20% or lower under Basel II Standardized approach).	25%
All other types of collateral	100%

Off balance sheet facilities

Credit lines¹⁶ and liquidity facilities provided to retail customers - 5% draw down

- 145) Credit lines and liquidity facilities provided to retail customers and retail SMEs (as per section 135) will have 5% draw down assumption applied to the undrawn amount of the advised limit.

Credit lines provided to non financial corporate customers - 10% draw down

- 146) Credit lines provided to non financial corporate customers (See footnote 15) are assumed to draw down at 10%. This takes into account the difficulty in replacing these lines from other banks in a market wide stress and the potential actions by corporates to secure cash to ensure no interruption to their business.

Credit lines provided to financial corporate customers - 100% draw down

- 147) Credit lines provided to other financial institutions (see footnote 15) receive 100% draw down to reflect the likelihood that they will be drawn upon in a market crisis.

Liquidity facilities provided to all entities (including embedded in transactions) - 100% draw down

- 148) A liquidity facility is defined by the BCBS as a committed undrawn back up facility put in place expressly for the purpose of refinancing debt of a customer where the customer is unable to obtain funding from the financial markets. These facilities receive 100% draw down to reflect the high likelihood that they will be used in a market wide crisis.

¹⁶ Credit lines include undrawn portion of overdrafts, credit cards, bill discounting facilities and other commitments to provide credit.

Letters of Guarantee, Letters of Credit and Trade Finance facilities – 5% draw down

- 149) LGs, LCs and other trade finance facilities receive 5% draw down on the outstanding amount.

Derivative contracts – assumed 3 notch downgrade to credit rating– 100% outflow

- 150) Some banks might have derivative contracts that include Credit Support Annex (CSA) which requires the bank to post collateral against its MTM position depending on its credit rating.
- 151) Banks should assume a three notch downgrade to their credit rating and determine the cash outflow required to obtain the additional collateral required under the CSA as a result of the downgrade. The cash outflow will be treated as 100% outflow in the 30 day stress period under the LCR.

Derivative contracts –Net outflow under the contract within 30 days – 100% outflow

- 152) Known amounts to be paid on derivative contracts less known amounts to be received from derivative contracts within 30 days should be included in the LCR outflows at 100%.

Cash Inflows – 100% in the normal course of business inflows with a cap of 75% of outflows

- 153) Contractual cash inflows from assets that are expected to come in within the 30 day stress period under normal business conditions (see details below) are allowed to be included in the LCR up to 75% of cash outflows (see paragraph 117).
- 154) Cash inflows from the principal and interest repayment of loans and advances to retail, SMEs and non financial corporates is included at 50% cash inflow. This assumes that the bank will continue to extend new loans at 50% of the contractual inflows.
- 155) No Credit card and overdraft repayments are allowed as a cash inflow.
- 156) Contractual cash inflows that are generated from financial institutions maturing within 30 days are assumed to be received in full (100% inflow). Similarly, all debt instruments that are maturing within the 30 day period will receive 100% cash inflow.
- 157) No lines of credit, liquidity facilities, and contingent funding facilities given to the bank are allowed to be included in the cash flows (0% inflow).
- 158) No operational deposits made to financial institutions should be allowed as a cash inflow (0% cash inflow).

The table below provides a summary of the LCR

Items	1-haircut%
Liquid assets	
Cash and Reserves at the Central Bank	100%
UAE Sovereign or Central Bank debt (including Central Bank CDs and local government debt)	100%
Foreign Sovereign or Central Bank debt receiving 0% Risk Weight (RW) under Basel II Stand. App.	100%
Securities Issued by PSEs and GREs receiving 0% Risk Weight (RW) under Basel II Stand. App.	100%
Total T1 liquidity	
Other Sovereign, Central Bank, GRE or PSEs debt receiving 20% Risk Weight (RW) under Basel II Stand. App.	85%
Corporate bonds (AA- or higher)	85%
Covered bonds (AA- or higher) – not issued by the bank itself	85%
Total TII liquidity allowed (Max 40% of eligible liquid assets)	
Total Eligible Liquid Assets	
Uses of cash	Run off %
<i>Liabilities (contractually due within 30 days)</i>	
Retail & SME - Stable deposits (max 40% of maturing deposits)	5%
Retail & SME - Less stable deposits	10%
Non financial corporate deposits (operational)	25%
Non financial corporate deposits (Non -operational)	75%
Financial corporate deposits (operational)	25%
Financial corporate deposits (Non -operational)	100%
All other unsecured wholesale deposits	100%
Debt securities Maturing within 30 days	100%
Funding secured by eligible T1 liquid assets	0%
Funding secured by eligible T2 liquid assets	15%
Transaction with Sovereigns, central bank, PSEs and GREs with RW below 20% under Basel II Stand.	25%
<i>All other types of collateral</i>	100%
<i>Off balance sheet liabilities</i>	
Additional collateral required assuming a - 3 notches in credit rating	100%
Cash outflow to meet payments under derivative contracts	100%
Contractually enforceable credit and liquidity facilities	Draw down
Retail & SME - draw down on liquidity and credit facilities	5%
Non financial corporate (Inc. PSEs) - Draws on credit facilities	10%
Non Financial corporate (Inc (PSEs) - Draws on liquidity facilities	100%
Financial corporates liquidity and credit facilities	100%
LCs, LGs and trade finance	5%
Cash inflows (contractually due within 30 days)	% coming in
Interest & principal repayments from performing loans& advances (excluding ODs and Credit cards)	50%
Payments from financial institutions and debt securities maturing	100%
Total cash inflows during 30 day period	
LCR = Eligible Liquid Assets / Net Cash outflow over 30 days	

D) Net Stable Funding Ratio (NSFR)

- 159) The NSFR ratio is based on Basel III recommendations. It is therefore recommended that banks familiarize themselves with BCBS final recommendations on liquidity titled “Basel III: International Framework for Liquidity Risk measurement, standards and monitoring “issued December 2010”.
- 160) This is a structural ratio that aims to ensure that the banks have sufficient long term funding beyond the LCR’s 30 day time horizon to meet both funding of its long term assets and a portion of contingent liability draw downs under a period of market wide stress. When it comes into effect, this ratio replaces the Uses to Stable Resources Ratio (USRR). The NSFR comes into effect on 1 January 2018.
- 161) The NSFR assumptions are applied to contractual data representing the main uses and sources of funds at banks to determine the Available Stable Funding (ASF) and the Required Stable Funding (RSF) amount over a one year time horizon. ASF is then divided by the RSF to get the NSFR.
- 162) The ASF should at least cover the RSF and thus the minimum of this ratio is 100%. The Central Bank, might advice the banks to hold higher NSFR ratios if it sees fit. The current NSFR is 100% and Banks are expected to be compliant from the effective date of 1 January 2018 using the assumptions and calibration as described below.
- 163) In the meantime, these assumptions will be constantly reviewed and, if necessary, updated in response to changes in Basel III standards. The Central Bank will set up a liquidity task force to ensure a smooth implantation of the NSFR by its implementation date. The team will visit banks and request a “road map” with clear millstones explaining how the bank will meet the NSFR by its due date. The team will then assess the plan and provide guidance and monitor the progress of the bank against its internally set milestones.

Calculation of NSFR

- 164) The NSFR is calculated by dividing the Available Stable Funding by the Required Stable Funding. The ratio should always be more than 100%.

$$\text{NSFR} = \frac{\text{Available Stable Funding (ASF)}}{\text{Required Stable Funding (RSF)}} > 100\%$$

Available Stable Funding and associated stability factors

Capital, Hybrids, and liabilities with a remaining maturity over 1 year – 100% RSF Factor

- 165) The following funding sources with an assumed stable funding factor of 100%

- The amount of capital base as per Basel II capital standards
- The amount of Capital hybrids with expected maturity of over 1 year if not included in the capital base.
- The amount of all debt with remaining maturity of over one year

166) Stable Retail and SME deposits with a maturity less than 1 year - receives an ASF factor of 90%

167) The LCR definition of Stable Retail and SME deposits in paragraphs (129) to paragraph (135) should be applied to the retails and SME deposits maturing in less than 1 year to determine the portion of this funding that is stable.

This should be applied to demand, at call or savings deposits as there contractual maturity is 1 day. All term deposits with a maturity over 1 year are covered under paragraph 165 above.

168) Less Stable Retail and SME deposits with a maturity less than 1 year receives an ASF factor of 80%

169) All retail and SME deposits maturing in less than 1 year and do not meet the criteria to be included as “stable deposits” under in paragraphs (129) to paragraph (135) should be included here.

170) Funding provided by Non Financial Institutions, Sovereigns, Central Banks, Multilateral Development Banks and PSE and GREs with maturity less than 1 year - receives an ASF factor of 50%

168) All other liabilities and equity categories not included in the paragraphs (164) to (170) above receive a stability factor of 0% (i.e. is not considered a stable source of funding for NSFR purposes.

Required stable funding for asset categories and associated RSF factors

169) The following asset classes receive a required stable funding of 0%

- Cash immediately available to meet obligations (not held for an intended use)
- Unencumbered unsecured instruments and transactions with an outstanding maturity of less than one year (provide there is no option to increase the expected maturity beyond 1 year).
- Loans to financial entities with effective remaining maturity of less than 1 year.

170) the following assets receive a required stable funding factor of 5%.

Unencumbered securities with a maturity of over one that are issued or guaranteed by sovereigns, central banks, BIS, IMF, PSEs or multilateral development banks that have a 0% risk weight under Basel II standardized approach.

171) the following assets receive a required stable funding factor of 20%.

- Claims issued or guaranteed by Sovereigns, Central banks, PSE's receiving 20% risk weight under Basel II standardized approach and that have a remaining maturity of over 1 year.
- Corporate bonds rated AA- or higher with remaining maturity of over 1 year.

172) the following assets receive a required stable funding factor of 50%.

- Unencumbered gold
- Unencumbered equities issued by non financial institutions or their affiliates and that are listed on recognized exchange (please refer to the list of recognized exchanges provided in the reporting template).
- Unencumbered corporate bonds (not issued by a financial institution) and covered bonds, which are rated A- to A+ and are eligible for the central bank liquidity facility (Central Bank will provide further details in due course).
- Unencumbered loans to Non Financial Institutions, Sovereigns, Central Banks, and PSEs with a Risk weight of at less than 20% under Basel standardized approach, with a remaining maturity of less than 1 year.

173) the following assets receive a required stable funding factor of 65%.

- Unencumbered residential mortgages with of any maturity that have a risk weight of less than 35% under Basel standardized approach.
- All other unencumbered loans, except for loans to financial institutions, that have a risk weight of less than 35% under Basel standardized approach.

174) the following assets receive a required stable funding factor of 85%.

- Unencumbered loans to retail and SME customers (as defined in the LCR) with a remaining maturity of less than 1 year.

175) All other assets not mentioned above receive a required stable funding factor of 100%.

Off balance sheet categories and associate RSF factors

176) All credit and liquidity facilities to all clients – 5% RSF factor

177) Guarantees, letters of credit and trade finance instruments – 5% RSF factor

NSFR calculation summary table

Stable Funding Source	ASF Factor
<ul style="list-style-type: none"> • The amount of capital base as per Basel II capital standards • The amount of Capital hybrids with expected maturity of over 1 year if not included in the capital base. • The amount of all debt with remaining maturity of over one year 	100%
Stable Retail and SME deposits with a maturity less than 1 year	90%
Less Stable Retail and SME deposits with a maturity less than 1 year	80%
Funding provided by Non Financial Institutions, Sovereigns, Central Banks, Multilateral Development Banks and PSE and GREs with maturity less than 1 year	50%
All other liabilities and equity categories not included above	0%
Total available funding sources after applying the ASF Factor	
Asset class	RSF Factor
<ul style="list-style-type: none"> • Cash immediately available to meet obligations (not held for an intended use) • Unencumbered unsecured instruments and transactions with an outstanding maturity of less than one year (provide there is no option to increase the expected maturity beyond 1 year). • Loans to financial entities with effective remaining maturity of less than 1 year. 	0%
Unencumbered securities with a maturity of over one that are issued or guaranteed by sovereigns, central banks, BIS, IMF, PSEs or multilateral development banks that have a 0% risk weight under Basel II standardized approach.	5%
<ul style="list-style-type: none"> • Claims issued or guaranteed by Sovereigns, Central banks, PSE's receiving 20% risk weight under Basel II standardized approach with a remaining maturity over 1 year. • Corporate bonds rated AA- or higher with remaining maturity of over 1 year. 	20%
<ul style="list-style-type: none"> • Unencumbered gold • Unencumbered equities issued by non financial institutions or their affiliates and that are listed on recognized exchange. • Unencumbered corporate bonds (not issued by a financial institution) and covered bonds, which are rated A- to A+ and are eligible for the central bank liquidity facility • Unencumbered loans to Non Financial Institutions, Sovereigns, Central Banks, and PSEs with a Risk weight of at less than 20% under Basel standardized approach, with a remaining maturity of less than 1 year. 	50%
<ul style="list-style-type: none"> • Unencumbered residential mortgages with of any maturity that have a risk weight of less than 35% under Basel standardized approach. • All other unencumbered loans, except for loans to financial institutions, that have a risk weight of less than 35% under Basel standardized approach. 	65%
Unencumbered loans to retail and SME customers (as defined in the LCR) with a remaining maturity of less than 1 year.	85%
All other assets not mentioned above	100%
Off balance sheet categories	
All credit and liquidity facilities to all clients	5%
Guarantees, letters of credit and trade finance instruments	5%

Part 3: Liquidity Reporting

- 178) Attached is the reporting template (in Excel Format) that collects contractual data over the assets and liabilities maturity spectrum. The report will allow the Central Bank to monitor the compliance with the above ratios as well as the maturity mismatch gaps, concentration of funding by source and tenor. It will also enable the Central Bank to conduct system wide stress testing.
- 179) A simplified version of this report will be incorporated into the Central Bank's online reporting system in due course and the banks will be advised accordingly.
- 180) The report has five tabs, the first tab includes the notes and instructions necessary to complete the report, the second tab includes the data on a consolidated basis in AED, and the three remaining tabs includes the same data for different currency exposures reported in AED using the prevailing foreign exchange rate as off the reporting date.
- 181) The liquidity report should be completed on an ad hoc basis as required by the Central Bank.
- 182) Banks should develop a road map to comply with the LCR and NSFR by their respective due dates and provide it to the Central bank upon request.