



BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA

Net Stable Funding Ratio

Exposure Draft

Applicable to:

1. Licensed banks
2. Licensed investment banks
3. Licensed Islamic banks

Issued on: 27 September 2017

BNM/RH/ED 029-3

This Exposure Draft sets out the Bank's proposals on the Net Stable Funding Ratio (NSFR), which is part of the Basel III regulatory reforms.

Submission of feedback:

- (a) The Bank invites written feedback on the proposed regulatory requirements, including suggestions on areas to be clarified and alternative proposals that the Bank should consider. The written feedback should be constructive and supported with clear rationale, including accompanying evidence, empirical analysis or illustrations where appropriate;
- (b) In addition to providing general feedback, banking institutions are requested to respond to specific questions set out throughout this Exposure Draft; and
- (c) In addition to existing obligations under *Basel III Observation Period Reporting (Net Stable Funding Ratio and Leverage Ratio)*, banking institutions are required to report NSFR positions (at the entity, consolidated and Skim Perbankan Islam levels) as at 30 June 2017, based on the parameters in this Exposure Draft and using the reporting template provided. Please attach this to your written feedback under paragraph (a) and (b).

Responses must be submitted to the Bank by 27 November 2017 to the following mailing or email address:

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In the course of providing your feedback, you may direct queries to the following officers at 03-26988044:

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PART A OVERVIEW

1 Introduction

- 1.1 The Net Stable Funding Ratio (NSFR) is a minimum standard that requires banks to maintain a stable funding profile in relation to the composition of their assets and off-balance sheet activities.
- 1.2 A stable funding profile reduces the likelihood of a banking institution's liquidity position being severely eroded by disruptions to its regular sources of funding. Under such circumstances, the viability of the banking institution may be put, or perceived to be, at risk. This could subsequently lead to broader systemic stress.
- 1.3 The NSFR complements the objectives of the *Liquidity Coverage Ratio* (LCR), which has been in effect in Malaysia since 1 June 2015. While the LCR encourages the short-term resilience (30 days) of a banking institution's liquidity risk profile, the NSFR reduces funding risk over a longer time horizon (one year).

2 Applicability

- 2.1 This policy document is applicable to all banking institutions as defined in paragraph 5.2.

3 Legal provisions

- 3.1 This policy document is issued pursuant to—
 - (a) section 47(1), section 143(2) and section 266 of the Financial Services Act 2013 (FSA); and
 - (b) section 57(1), section 155(2) and section 277 of the Islamic Financial Services Act 2013 (IFSA).

4 Effective date

- 4.1 This policy document will come into effect no earlier than 1 January 2019. Sufficient notice will be provided to banking institutions before the policy document comes into effect.

5 Interpretation

5.1 The terms and expressions used in this policy document shall have the same meanings assigned to them in the FSA or IFSA, as the case may be, unless otherwise defined in this policy document.

5.2 For the purpose of this policy document–

“**S**” denotes a standard, an obligation, a requirement, specification, direction, condition and any interpretative, supplemental and transitional provisions that must be complied with. Non-compliance may result in enforcement action;

“**G**” denotes guidance which may consist of statements or information intended to promote common understanding and advice or recommendations that are encouraged to be adopted;

“**banking institutions**” refers to licensed banks, licensed investment banks and licensed Islamic banks except for licensed international Islamic banks;

“**central counterparty**” or “**CCP**” refers to an entity that interposes itself between counterparties to contracts traded within one or more financial markets, becoming the legal counterparty such that it is the buyer to every seller and the seller to every buyer;

“**debt securities**” includes any *sukūk* structured under any Shariah compliant contract;

“**financial institutions**” refers to entities, whether incorporated in Malaysia or otherwise, engaged primarily in financial services¹;

“**liability instruments**” includes investment accounts as defined in *Investment Account*;

“**securities financing transactions**” or “**SFT**” includes–

- (a) a repurchase agreement transaction;
- (b) a reverse repurchase agreement transaction;
- (c) a securities/commodities lending or borrowing transaction;
- (d) a margin lending transaction;
- (e) a collateralised *murabahah* arrangement; and
- (f) a sell and buyback agreement transaction.

“**significant currency**” refers to any non-Ringgit currency amounting to 5% or more of a banking institution’s total on- and off-balance sheet liabilities.

¹ This shall include banking, investment banking, national development financing initiatives, insurance/takaful, securities broking, fund management, asset management, leasing and factoring services.

“**Skim Perbankan Islam**” or “**SPI**” refers to a licensed bank or licensed investment bank that has been approved under section 15(1)(a) of the FSA to carry on Islamic banking business.

6 Related legal instruments and policy documents

- 6.1 This policy document must be read together with other relevant instruments and policy documents that have been issued by the Bank, in particular –
- (a) *Liquidity Coverage Ratio*;
 - (b) *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)*;
 - (c) *Capital Adequacy Framework (Capital Components)*;
 - (d) *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*;
 - (e) *Capital Adequacy Framework for Islamic Banks (Capital Components)*;
 - (f) *Investment Account*;
 - (g) *Statutory Reserve Requirement*;
 - (h) *Classification and Impairment Provisions for Loans/Financing*; and
 - (i) *STATsmart Reporting Requirements on Data Submission for Reporting Entities*.

PART B POLICY REQUIREMENTS

7 General requirements

- S** 7.1 A banking institution shall maintain a minimum NSFR of 100% at all times which shall be calculated in the following manner:

$$\text{NSFR} = \frac{\text{Total amount of available stable funding}}{\text{Total amount of required stable funding}} \geq 100\%$$

- S** 7.2 A banking institution shall comply with the minimum NSFR level on an aggregated currency² basis. All foreign currency exposures must be reported in Ringgit-equivalent terms based on the foreign exchange rates as at the reporting date.
- S** 7.3 Notwithstanding the requirements in paragraph 7.1, a banking institution must comply with a higher NSFR minimum that may be specified by the Bank upon consideration of the banking institution's liquidity risk profile and risk mitigation measures.
- S** 7.4 A banking institution must comply with the requirements in this document at the following levels:
- entity level, referring to the global operations of the banking institution (i.e. domestic operations plus overseas branch operations) plus its Labuan banking subsidiary;
 - consolidated level, which includes entities covered under the entity level, and the consolidation³ of all subsidiaries, except insurance and/or takaful subsidiaries; and
 - SPI level, as if it were a stand-alone banking institution.

8 Available stable funding (ASF)

- G** 8.1 ASF factors reflect the degree of stability of a banking institution's capital and liabilities over a time horizon of up to one year. Calibration of the ASF factors is considered across two dimensions:
- Funding tenor: Longer-term liabilities are generally assumed to be more stable than short-term liabilities; and
 - Funding counterparty: Funding provided by retail customers and small business customers are assumed to be behaviourally more stable than wholesale funding of the same maturity.

² Ringgit and all other currencies.

³ Consolidation of financial reporting shall be in accordance with the Malaysian Financial Reporting Standards (MFRS).

- S** 8.2 A banking institution shall calculate the total amount of ASF in the following manner:
- (a) Assign the carrying value⁴ of the banking institution’s capital and liabilities to one of the five categories as specified in paragraphs 8.9 to 8.15;
 - (b) Multiply the assigned amount by the corresponding ASF factor to obtain a weighted amount; and
 - (c) Sum up the weighted amount to obtain the banking institution’s total amount of ASF.

$\text{Total amount of ASF} = \text{Sum of} \left[\begin{array}{l} \text{Carrying value of capital or} \\ \text{liability instrument} \end{array} \times \text{ASF factor} \right]$
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Determining the maturity of a capital or liability instrument

- S** 8.3 A banking institution shall assign the carrying value of a capital or liability instrument to the following residual maturity buckets:
- (a) One year or more;
 - (b) Six months to less than one year; or
 - (c) Less than six months.
- S** 8.4 A banking institution shall report capital and liability instruments according to contractual residual maturity, unless otherwise specified in paragraphs 8.5 to 8.8.
- S** 8.5 A banking institution shall treat term deposits from retail⁵ customers or funding from small business customers⁶ according to contractual residual maturity only if the deposit or funding meets either of the following conditions:
- (a) The depositor or funds provider has no legal right to withdraw the deposit or funding prior to contractual maturity; or
 - (b) Withdrawal prior to contractual maturity results in a penalty amounting to 100% of the accrued interest or profit.
- S** 8.6 Where a banking institution has allowed for any term deposits or funding to be withdrawn or redeemed prior to contractual maturity notwithstanding paragraph 8.5(a) or 8.5(b), the banking institution shall treat the entire category of the term deposits or funding as demand deposits.

⁴ The carrying value of capital and liabilities represents the amount at which a capital or liability instrument is recorded before the application of any regulatory deductions, filters or other adjustments.

⁵ As defined in paragraph 14.1 of the LCR.

⁶ As defined in paragraph 15.17 of the LCR.

- S** 8.7 A banking institution shall treat capital and liability instruments with call options (whether explicit or implicit) in the following manner:
- (a) where the call option is exercisable at the counterparty's discretion, the banking institution shall assume that the counterparty will redeem the option at the earliest possible date; and
 - (b) where the call option is exercisable at the banking institution's discretion, the banking institution shall assume that the option will be exercised in situations where the market expects these instruments to be redeemed before the final contractual maturity date.

Question 1

With respect to paragraph 8.7(b), please provide examples of instruments where there is an embedded call option exercisable at your institution's discretion. For these instruments, what are the past (or anticipated) circumstances under which your institution has exercised (or is likely to exercise) a call option due to market pressure or expectations?

- S** 8.8 For long-term liabilities, a banking institution shall only treat the portion of cash flows falling at or beyond the six-month and one-year time horizons as having a contractual residual maturity of six months or more and one year or more, respectively.

ASF factors**100%**

- S** 8.9 A banking institution shall apply a 100% ASF factor to all capital^{7,8} and liability⁹ instruments with a residual maturity of one year or more, except for instruments with explicit or embedded options that, if exercised, would reduce the residual maturity to less than one year.

95%

- S** 8.10 A banking institution shall apply a 95% ASF factor to demand deposits and term deposits placed by retail and small business customers with a residual maturity of less than one year that meet the criteria for stable deposits¹⁰.

⁷ This refers to capital instruments that meet the requirements in the *Capital Adequacy Framework (Capital Components)* and *Capital Adequacy Framework for Islamic Banks (Capital Components)*.

⁸ Total amount of capital instruments before the application of capital deductions.

⁹ Secured and unsecured.

¹⁰ As defined in paragraphs 14.3 to 14.6 of the LCR.

- 90%**
- S** 8.11 A banking institution shall apply a 90% ASF factor to-
- (a) demand deposits and term deposits placed by retail and small business customers with a residual maturity of less than one year that are deemed to be less stable¹¹; and
 - (b) funding from securities issued by the banking institution with a residual maturity of less than one year that are sold exclusively to retail and small business customers, and cannot be bought and held by parties other than retail or small business customers.
- 50%**
- S** 8.12 A banking institution shall apply a 50% ASF factor to-
- (a) operational deposits¹² with a residual maturity of less than one year;
 - (b) secured and unsecured funding from non-financial corporates, sovereigns, public sector entities (PSEs)¹³ and multilateral development banks (MDBs) with a residual maturity of less than one year; and
 - (c) secured and unsecured funding not included in paragraphs 8.9 to 8.11, including funding from financial institutions and central banks, with a residual maturity between six months to less than one year.
- 0%**
- S** 8.13 A banking institution shall apply a 0% ASF factor to-
- (a) all capital and liability instruments not included in paragraphs 8.9 to 8.12, including funding from financial institutions and central banks, with a residual maturity of less than six months;
 - (b) liabilities without a stated maturity, such as short positions and open maturity positions;
 - (c) NSFR derivative liabilities¹⁴ net of NSFR derivative assets¹⁵, if NSFR derivative liabilities are greater than NSFR derivative assets¹⁶; and
 - (d) “trade date” payables arising from purchases of financial instruments, foreign currencies and commodities that:
 - (i) are expected to settle within the standard settlement cycle or period that is customary for the relevant exchange or type of transaction; or
 - (ii) have failed to, but are still expected to, settle.

¹¹ These are deposits that do not meet the criteria of stable deposits as defined in paragraphs 14.3 to 14.6 of the LCR.

¹² As defined in paragraphs 15.5 to 15.14 of the LCR.

¹³ As defined in paragraph 2.20 of the *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)* and paragraph 2.24 of the *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*. For the avoidance of doubt, examples of PSEs under this category include Kumpulan Wang Simpanan Pekerja and Lembaga Tabung Haji.

¹⁴ As specified in paragraphs 10.1 to 10.3.

¹⁵ As specified in paragraphs 10.5 to 10.9.

¹⁶ Max ((NSFR derivative liabilities – NSFR derivative assets), 0).

- S** 8.14 Notwithstanding paragraph 8.13(b), a banking institution shall report the following liabilities with no stated maturity in the manner specified below:
- (a) deferred tax liabilities shall be treated according to the nearest possible date on which such liabilities could be realised; and
 - (b) minority interest¹⁷ shall be treated according to the contractual term¹⁸ of the instrument.
- S** 8.15 For purposes of paragraph 8.14, a banking institution shall apply the following ASF factors:
- (a) 100% ASF factor if the residual maturity is one year or greater;
 - (b) 50% ASF factor if the residual maturity is between six months and less than one year; or
 - (c) 0% ASF factor if the residual maturity is less than six months.
- G** 8.16 A summary of the instruments in each of the ASF categories and the associated ASF factors are provided in Appendix 1: Summary of liability categories and associated ASF factors.

9 Required stable funding (RSF)

- G** 9.1 RSF reflects the degree of asset liquidity¹⁹, or in the case of off-balance sheet (OBS) exposures, potential liquidity needs arising from commitments and contingent funding obligations. More stable funding is required for less liquid assets, or OBS obligations and commitments that are more likely to materialise.
- G** 9.2 Calibration of the RSF factors considers the liquidity risk profile of a banking institution's assets across four dimensions, namely:
- (a) sustainable credit creation: Stable funding is required for some proportion of lending to the economy to ensure the continuity of this type of intermediation;
 - (b) banking institution behaviour: Banking institutions may seek to roll over a significant proportion of maturing loans/financing to preserve customer relationships;
 - (c) asset tenor: Shorter-term assets require a smaller proportion of stable funding as banking institutions could allow a proportion of these assets to mature instead of rolling them over; and
 - (d) asset quality and liquidity value: Unencumbered, high-quality assets that can be securitised or traded, and thus can be readily used as collateral to secure additional funding or sold in the secondary market, do not need to be wholly financed with stable funding.

¹⁷ This includes minority interest that does not meet the criteria for inclusion in CET1 Capital as specified in the *Capital Adequacy Framework (Capital Components)* and *Capital Adequacy Framework for Islamic Banks (Capital Components)*.

¹⁸ Usually in perpetuity.

¹⁹ For example, an asset is considered less liquid if there is significant possibility of it being rolled over, or if the asset cannot be monetised through sale or used as collateral in a secured borrowing transaction over the course of one year without significant expense to the banking institution.

- S** 9.3 A banking institution shall calculate the total amount of RSF as follows:
- (a) assign the carrying value^{20,21} (net of any specific provisions²²) of the banking institution's assets to one of the eight categories as specified in paragraphs 9.11 to 9.18;
 - (b) multiply the assigned amount by the corresponding RSF factor to obtain a weighted amount; and
 - (c) sum up the weighted amount to obtain the banking institution's total amount of RSF.

$$\text{Total amount of RSF} = \text{Sum of} \left[\text{Carrying value of asset or outstanding amount of OBS} \times \text{RSF factor} \right]$$

- S** 9.4 In determining the amount of RSF for financial instruments, foreign currencies and commodities, a banking institution shall:
- (a) include these assets where a purchase order has been executed; and
 - (b) exclude these assets where a sales order has been executed.
- S** 9.5 A banking institution shall continue to apply the requirements in paragraph 9.4 even if the purchase or sales transaction has not been reflected in the banking institution's balance sheet under a settlement-date accounting model, provided that:
- (a) the transaction is not reflected as a derivative or SFT in the balance sheet; and
 - (b) the effect of the transaction will be reflected in the balance sheet upon settlement.
- S** 9.6 In determining the RSF for high-quality liquid assets (HQLA), a banking institution shall adopt the scope and definition of HQLA specified under the LCR, without regard to the operational requirements for HQLA and limits on the total amount of Level 2A and Level 2B assets. For the avoidance of doubt, any encumbered²³ HQLA shall be treated based on the requirements in paragraphs 9.23 and 9.24.

Determining the maturity of an asset

- S** 9.7 A banking institution shall assign the carrying value of an asset to the following residual maturity buckets:
- (a) one year or more;
 - (b) six months to less than one year; or
 - (c) less than six months.

²⁰ The carrying value of assets represents the amount at which an asset is recorded before the application of any regulatory deductions, filters or other adjustments.

²¹ For the avoidance of doubt, the carrying value of assets under an Unrestricted Investment Account (UA) is the net asset value (NAV) of the underlying assets.

²² Specific provisions include individual impairment provisions as well as collective impairment provisions (and regulatory reserves, if any) that are attributable to loan/financing classified as impaired. Individual and collective impairment provisions are as defined under the MFRS.

²³ As defined in paragraph 12 of the LCR.

- S** 9.8 A banking institution shall report assets according to contractual residual maturity, unless otherwise specified in paragraphs 9.9 and 9.10.
- S** 9.9 A banking institution shall treat assets with options (whether explicit or implicit) in the following manner:
- (a) where the option is exercisable at the counterparty's discretion, the banking institution shall assume that the counterparty will exercise the option to extend the asset's maturity; and
 - (b) where the option is exercisable at the banking institution's discretion, the banking institution shall assume that the option will be exercised in situations where the market expects these assets to be extended in maturity²⁴.

Question 2

Based on your institution's experience, what are the types of assets that would fall under paragraph 9.9(b)? What are the circumstances under which the banking institution may decide not to exercise an option to extend maturity (i.e. the banking institution decides not to roll over, or to terminate the transaction)?

- S** 9.10 For amortising loans, a banking institution shall treat the portion of the loan that comes due within a one-year horizon under the appropriate less-than-one-year residual maturity buckets.

RSF factors**0%**

- S** 9.11 A banking institution shall assign a 0% RSF factor to the following assets:
- (a) coins and banknotes currently held and immediately available to meet obligations;
 - (b) all central bank reserves, including any balances held in the banking institution's Statutory Reserve Account (SRA)²⁵;
 - (c) all claims on central banks, including placements with the Bank and other central banks with a residual maturity of less than six months; and
 - (d) "trade date" receivables arising from sales of financial instruments, foreign currencies and commodities that:
 - (i) are expected to be settled within the standard settlement cycle or period that is customary for the relevant exchange or type of transaction; or
 - (ii) have failed to, but are still expected to, be settled.

5%

- S** 9.12 A banking institution shall assign a 5% RSF factor to Level 1 HQLA²⁶, excluding assets in paragraph 9.11.

²⁴ For example, this could refer to a case where the banking institution may imply that it faces funding risk if it does not exercise an option on its assets.

²⁵ As described in *Statutory Reserve Requirement*.

²⁶ For holdings of FX-denominated debt securities issued by a non-0% risk-weighted sovereign or central bank, any amounts that exceed the currency needs of the banking institution's operations in that jurisdiction can be treated as Level 1 HQLA under the NSFR.

- 10%**
- S** 9.13 A banking institution shall assign a 10% RSF factor to loans or financing to financial institutions with a residual maturity of less than six months, provided that-
- (a) the loan or financing is secured against Level 1 HQLA; and
 - (b) the banking institution has the ability to freely rehypothecate the received collateral for the life of the loan or financing.
- 15%**
- S** 9.14 A banking institution shall assign a 15% RSF factor to the following assets:
- (a) Level 2A HQLA;
 - (b) debt securities issued by non-financial corporates²⁷, that satisfy all of the following conditions:
 - (i) not issued by a financial institution or any of its affiliated entities;
 - (ii) assigned a rating between AA- and AA+ by a recognised External Credit Assessment Institution (ECAI) or internally rated with a probability of default (PD) corresponding to a credit rating of at least AA-;
 - (c) non-operational deposits held at financial institutions with a residual maturity of less than six months; and
 - (d) all other loans or financing to financial institutions with a residual maturity of less than six months that are not specified in paragraphs 9.11 to 9.13.
- 50%**
- S** 9.15 A banking institution shall assign a 50% RSF factor to the following assets:
- (a) Level 2B HQLA, excluding assets that receive a 15% RSF factor as specified in paragraph 9.14(b);
 - (b) common equity shares that satisfy all of the following conditions:
 - (i) not issued by a financial institution or any of its affiliated entities;
 - (ii) exchange traded and centrally cleared;
 - (iii) a constituent of the major stock index²⁸ in the home jurisdiction or where the liquidity risk is taken; and
 - (iv) denominated in the domestic currency of the home jurisdiction or in the currency of the jurisdiction where the liquidity risk is taken;
 - (c) debt securities issued by non-financial corporates that satisfy all of the following conditions:
 - (i) denominated in Ringgit;
 - (ii) not issued by a financial institution or any of its affiliated entities; and
 - (iii) assigned a rating between A- and A+ by a recognised ECAI or internally rated with a PD corresponding to a credit rating of between A- to A+;
 - (d) non-operational deposits held at financial institutions and central banks with a residual maturity of between six months and less than one year;
 - (e) loans or financing to financial institutions and central banks with a residual maturity of between six months and less than one year;

²⁷ Classified as Level 2B HQLA under the LCR.

²⁸ For Malaysia, this shall include the FTSE Bursa Malaysia Top 100 Index and the FTSE Bursa Malaysia Hijrah Shariah Index.

- (f) operational deposits held at financial institutions with a residual maturity of less than one year; and
- (g) all other non-HQLA not included in paragraphs 9.11 to 9.14 that have a residual maturity of less than one year²⁹, including loans or financing to non-financial corporates, retail and small business customers, sovereigns, PSEs and MDBs.

Question 3

Debt securities issued by sovereigns with a rating between BBB- to BBB+ by a recognised ECAI or an internal rating with a PD corresponding to a credit rating of at least BBB- currently do not qualify as HQLA under the LCR.

The Bank is presently assessing whether such securities could qualify for a Level 2B treatment under the NSFR. As such, the Bank invites the industry to provide views on the liquidity characteristics of such securities during business-as-usual conditions (e.g. level of market activity and market concentration, ease or certainty of valuation, relative level of credit or market risk compared to Level 2B HQLA). Please provide empirical evidence to support your views.

65%

- S** 9.16 A banking institution shall assign a 65% RSF factor to the following assets:
- (a) residential mortgages with a residual maturity of one year or more that would qualify for a 35% or lower risk weight under the standardised approach for credit risk in the *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)* and *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*; and
 - (b) other loans or financing (excluding loans or financing to financial institutions) with a residual maturity of one year or more that would qualify for a 35% or lower risk weight under the standardised approach for credit risk in the *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)* and *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*.

85%

- S** 9.17 A banking institution shall assign an 85% RSF factor to the following assets:
- (a) cash, debt securities or other assets (whether on- or off-balance sheet) posted as initial margin for derivative contracts³⁰ that are not included in paragraph 9.18;
 - (b) cash or other assets contributed to the default fund of a CCP;
 - (c) other performing loans or financing³¹ (excluding loans or financing to financial institutions) that do not qualify for a 35% or lower risk weight

²⁹ This includes short-term unsecured instruments and transactions with residual maturity of less than one year. Examples include investments in collective investment schemes, banker's acceptances (BA), Accepted Bills-i (AB-i), negotiable instruments of deposits (NID) and Islamic negotiable instruments (INI).

³⁰ Initial margin posted on behalf of a customer, where the banking institution does not guarantee performance of the third party, would be exempt from this requirement.

³¹ This shall exclude credit exposures which are defined as "impaired" in the *Classification and Impairment Provisions for Loans/Financing*.

under the standardised approach for credit risk in the *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)* and *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)* and have a residual maturity of one year or more;

- (d) debt securities with a residual maturity of one year or more that do not qualify as HQLA and that are not in default;
- (e) exchange-traded equities that are not included in paragraph 9.15(b); and
- (f) physical traded commodities, including gold.

Question 4 (applicable to IRB banks only)

For IRB banks, paragraphs 9.16 and 9.17(c) will require the categorisation of exposures based on the standardised approach for credit risk. Please highlight the issues and challenges with adopting such an approach. The Bank also welcomes suggestions for alternative approaches to fulfil these requirements.

100%

- S** 9.18 A banking institution shall assign a 100% RSF factor to the following assets:
- (a) all assets that are encumbered for a period of one year or more;
 - (b) NSFR derivative assets³² net of NSFR derivative liabilities³³, if NSFR derivative assets are greater than NSFR derivative liabilities³⁴;
 - (c) all other assets not included in paragraphs 9.11 to 9.17, including non-performing loans or financing, loans or financing to financial institutions and central banks 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; and
 - (d) 20% of derivatives liabilities (i.e. negative replacement cost amount) as calculated according to paragraphs 10.1 and 10.2 (before deducting variation margin posted).
- G** 9.19 A summary of the assets in each of the RSF categories and the associated RSF factors are provided in Appendix 2: Summary of asset categories and associated RSF factors.

Off-balance sheet (OBS) exposures

- G** 9.20 RSF factors for OBS exposures reflect the proportion of an OBS commitment or contingent funding obligation that is likely to materialise and result in liquidity needs over a one-year horizon.
- G** 9.21 Consistent with the LCR, the categories of OBS exposures covered under the NSFR include:
- (a) credit and liquidity facilities; and
 - (b) other contingent funding obligations.

³² As specified in paragraphs 10.5 to 10.9.

³³ As specified in paragraphs 10.1 to 10.3.

³⁴ Max ((NSFR derivative assets – NSFR derivative liabilities), 0)

- S** 9.22 A banking institution shall apply the following RSF factors to the total outstanding amounts of the committed facilities and non-contractual contingent funding obligations described in the table below:

	Category	RSF factor
<i>Committed facilities</i>		
(a)	Irrevocable and conditionally revocable credit and liquidity facilities	5%
<i>Non-contractual contingent funding obligations</i>		
(b)	Unconditionally revocable (i.e. uncommitted) credit and liquidity facilities ³⁵	0%
(c)	Trade finance-related obligations (including guarantees and letters of credit)	3%
(d)	Guarantees and letters of credit unrelated to trade finance obligations	10%
(e)	Potential requests for debt repurchases of the banking institution's own debt or that of related conduits, securities investment vehicles (SIVs) and other such financing facilities	10%
(f)	Structured products where customers anticipate ready marketability	10%
(g)	Managed funds ³⁶ that are marketed with the objective of maintaining a stable value (e.g. money market mutual funds, other types of stable value collective investment funds)	10%

³⁵ Refers to commitments that are eligible for a 0% credit conversion factor under the *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)* and *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*.

³⁶ At the entity level, this shall only include managed funds being sold by the banking institution, not funds which are distributed by the banking institution on behalf of a third party.

Question 5

(a) The RSF factors specified in paragraph 9.22 mirror the run-off rates specified for these items under the LCR given that both are intended to capture the potential amount of drawdown of facilities provided, or contingent obligations that may materialise.

However, the Bank is presently assessing whether a different treatment is warranted under the LCR given that the NSFR considers a longer-term horizon under business-as-usual conditions. The Bank invites comments from the industry on the appropriateness or need for a different treatment of OBS exposures under the NSFR. Please provide empirical evidence to support your views, particularly where a different treatment is proposed.

(b) The Bank is also considering computation of the RSF for OBS exposures based on a banking institution’s historical experience. The Bank invites comments from the industry on this approach. To facilitate the Bank’s assessment, please provide the total approved or outstanding amount, the undrawn amount and the outflows of contingent obligations for each type of OBS exposure specified above, where available. These are to be provided in the “NSFR_OBS” worksheet of the reporting template.

Encumbered assets

S 9.23 A banking institution shall apply the following RSF factors to encumbered assets:

	Period of encumbrance	RSF factor
(a)	Assets encumbered for one year or more	100%
(b)	Assets encumbered for a period of between six months and less than one year that would, if unencumbered, receive an RSF factor lower than or equal to 50%	50%
(c)	Assets encumbered for between six months and less than one year that would, if unencumbered, receive an RSF factor higher than 50%	Same RSF factor as if the assets were unencumbered
(d)	Assets encumbered for less than six months	

G 9.24 The Bank may consider subjecting assets that are encumbered for exceptional central bank liquidity operations to a reduced RSF factor, as and when necessary. In such circumstances, the Bank will communicate the treatment, which shall be no lower than the RSF factor applied to an equivalent asset that is unencumbered, to banking institutions beforehand.

Securities Financing Transactions (SFTs)

S 9.25 Where securities are borrowed or lent in an SFT, a banking institution shall capture these securities as an asset and allocate them to the appropriate RSF category if:

- (a) the banking institution retains beneficial ownership over these securities; and
- (b) these securities remain on its balance sheet.

- S** 9.26 With regard to paragraph 9.25, these securities shall be considered encumbered for the term of the SFT, including in cases where the residual maturity of the securities is shorter than the term of the SFT³⁷.
- G** 9.27 A banking institution may calculate the RSF amount for an SFT with a single counterparty on a net basis, provided that the netting conditions set out in paragraph 33(i) of the *Basel III Leverage Ratio Framework and Disclosure Requirements*³⁸ are met.

10 Derivatives

Calculation of derivative liability amounts

- S** 10.1 A banking institution shall calculate derivative liabilities based on the replacement cost of the derivative contracts (obtained by marking to market) where the contract has a negative value.
- S** 10.2 When an eligible bilateral netting agreement is in place that meets the conditions as specified in the *Capital Adequacy Framework (Basel II – Risk-Weighted Assets and Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets))*, a banking institution shall aggregate the replacement cost of the derivative contracts covered by the netting agreement to derive the net replacement cost.
- S** 10.3 A banking institution shall calculate the NSFR derivative liability amount in the following manner³⁹:

$\text{NSFR derivative liabilities} = \text{Derivative liabilities} - \text{Total collateral posted (regardless of asset type) as variation margin}$
--

- G** 10.4 For the avoidance of doubt, the ASF factor for NSFR derivative liabilities is specified in paragraph 8.13(c), and the RSF factor for derivative liabilities is specified in paragraph 9.18(d).

Calculation of derivatives asset amounts

- S** 10.5 A banking institution shall calculate derivative assets based on the replacement cost of derivative contracts (obtained by marking to market) where the contract has a positive value.

³⁷ For example, assets pledged under a transaction maturing beyond one year should be subject to an RSF factor of 100%, regardless of the residual maturity of the pledged asset.

³⁸ Available at <http://www.bis.org/publ/bcbs270.pdf>, January 2014.

³⁹ To the extent that collateral posted as variation margin is reflected on-balance sheet and is deducted from the replacement cost amount for purposes of the NSFR, the collateral shall not be included in the calculation of RSF to avoid double-counting.

- S** 10.6 When an eligible bilateral netting agreement is in place that meets the conditions as specified in the *Capital Adequacy Framework (Basel II – Risk-Weighted Assets)* and *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*, a banking institution shall aggregate the replacement cost for the set of derivative contracts covered by the netting agreement to derive the net replacement cost.
- S** 10.7 In calculating NSFR derivative assets, a banking institution shall not offset the positive replacement cost amount of a derivative contract with the collateral received in connection with that transaction. This is regardless of whether or not netting is permitted, unless:
- collateral is received in the form of cash variation margin; and
 - the cash variation margin received meets the conditions as specified in paragraph 25 of *Basel III Leverage Ratio Framework and Disclosure Requirements*⁴⁰.

$\text{NSFR derivative assets} = \text{Derivative assets} - \text{Total cash variation margin received}$
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- S** 10.8 A banking institution shall not offset derivative assets with any remaining balance sheet liabilities associated with:
- variation margin received that does not meet the criteria in paragraph 10.7; or
 - initial margin received.
- S** 10.9 With respect to paragraph 10.8, a banking institution shall assign a 0% ASF factor to these liabilities.

11 Interdependent assets and liabilities

- G** 11.1 Certain asset and liability items, on the basis of contractual arrangements, can be considered interdependent if:
- the liability cannot fall due while the asset remains on the balance sheet;
 - the principal payment flows from the asset cannot be used for something other than repaying the liability; and
 - the liability cannot be used to fund other assets.
- G** 11.2 In respect of paragraph 11.1, the Bank may consider adjusting the RSF and ASF factors for asset and liability items deemed to be interdependent so that they are both 0%, subject to a banking institution demonstrating that the following criteria are met:
- the individual interdependent asset and liability items must be clearly identifiable;
 - the maturity and principal amount of both the liability and its interdependent asset should be the same;

⁴⁰ Available at <http://www.bis.org/publ/bcbs270.pdf>, January 2014.

- (c) the banking institution is acting solely as a pass-through unit to channel the funding received (the interdependent liability) into the corresponding interdependent asset; and
- (d) the counterparties for each pair of interdependent liabilities and assets should not be the same.

- S** 11.3 Where interdependent assets and liabilities have been designated by the Bank in accordance with paragraph 11.2, a banking institution shall apply the corresponding RSF and ASF factors (i.e. 0%).

Question 6

Please state, if any, existing asset and liability items in your institution's portfolio that would meet the criteria in paragraph 11.2.

12 Investment accounts (IA)

- S** 12.1 The requirements in this section (paragraph 12) are applicable to IA funds received by an Islamic banking institution or SPI in its capacity as the *mudarib* or *wakeel* of the fund.
- S** 12.2 For the avoidance of doubt, where a banking institution is an IA holder (IAH), the banking institution shall apply the relevant RSF factors specified in paragraph 9 to the funds it has invested in the IA.
- G** 12.3 Similar to the LCR, the NSFR treatment of IA funds reflects the degree of liquidity risk that a banking institution is exposed to arising from these funds. The level of liquidity risk is influenced by features of individual funds such as redemption conditions, liquidity of underlying assets and the level of sophistication of the IAH.

Restricted Investment Account (RA)

- S** 12.4 A banking institution shall exclude RA funds in their entirety from the banking institution's NSFR.
- G** 12.5 RA funds are considered to pose minimal liquidity risk to the banking institution given that they are subject to stringent redemption conditions⁴¹. Therefore, these funds are not subject to the minimum liquidity standards (i.e. LCR and NSFR).

Unrestricted Investment Account (UA)

- G** 12.6 A banking institution may be exposed to liquidity risk from maturity mismatches in UA funds resulting from the early redemption of these funds. This is particularly relevant for UA funds that are subject to less stringent redemption conditions compared to RA funds.

⁴¹ See paragraph 22.16 in *Investment Account*.

- G** 12.7 A banking institution could be expected to provide liquidity support for the early redemption of UA funds. As such, the banking institution should maintain an appropriate amount of stable funding in relation to the composition of the underlying assets in UA funds.
- S** 12.8 A banking institution shall compute the NSFR separately for each UA fund based on the requirements specified in paragraphs 8 to 11, unless otherwise specified in paragraphs 12.14 to 12.16.
- S** 12.9 Where the NSFR of a UA fund is lower than 100%, a banking institution shall include the excess RSF amount over the ASF amount of the fund in the total RSF of the banking institution.
- S** 12.10 Where the NSFR of a UA fund is higher than 100%, a banking institution shall deduct, to a certain limit, the excess ASF amount over the RSF amount of the fund from the total RSF of the banking institution.
- S** 12.11 The amount of deduction specified in paragraph 12.10 is limited to the amount of eligible assets that the UA fund may purchase from the banking institution. An example is provided in Appendix 3: Example of an asset purchase through excess amount in UA fund.
- S** 12.12 In relation to paragraph 12.11, eligible assets refer to assets that:
- (a) fulfil the investment mandate of the UA fund; and
 - (b) will continue to be unencumbered for at least one year at the banking institution.
- G** 12.13 An illustration of the computation described in paragraphs 12.9 to 12.11 is provided in Appendix 4: Illustration on the treatment for deficit and excess amount in UA funds.

Determining the maturity of a UA fund under the ASF

- G** 12.14 The likelihood of early redemption by an IAH is largely driven by the riskiness of the underlying assets. As such, the less risky the underlying assets in a UA fund, the more stable funding from the IAH is likely to be (i.e. IAH will hold investments to maturity).

- S** 12.15 In relation to paragraph 12.8, a banking institution shall report the funding received by a UA fund that is fully invested in one or a combination of the following assets⁴² according to contractual residual maturity:
- (a) HQLA;
 - (b) deposits placed with another banking institution;
 - (c) unencumbered financing with a residual maturity of less than one year; or
 - (d) unencumbered financing with a residual maturity of one year or more that would qualify for a 35% or lower risk weight under the standardised approach for credit risk in the *Capital Adequacy Framework for Islamic Banks (Risk-Weighted Assets)*.

RSF treatment for UA funds fully invested in highly liquid assets

- S** 12.16 A banking institution shall assign a 10% RSF factor to the total underlying assets of a UA fund, if the fund is fully invested in one or a combination of the following assets⁴³:
- (a) HQLA;
 - (b) other securities which are traded in a secondary market;
 - (c) exchange-traded commodities; or
 - (d) deposits placed with another banking institution which are maturing or callable within the next six months.

13 Reporting requirements

Information to be reported to the Bank

- S** 13.1 A banking institution shall submit the following reports based on end-of-quarter positions in accordance with the following parameters:

Reports required	Level of reporting	Worksheet reference	Frequency
Table 1: NSFR	Entity, consolidated and where applicable, SPI	NSFR_Main	Quarterly
Table 2: NSFR by currency (a) MYR (b) USD (c) SGD (d) Other significant currencies		NSFR_MYR NSFR_USD NSFR_SGD NSFR_FX	
Table 3: NSFR for UA funds	Entity and where applicable, SPI	NSFR_UA	
Table 4: Funding position for RA funds		FP_RA	

⁴² These assets are deemed to be of low risk and stable performance.

⁴³ These assets can be quickly converted into cash, thus requiring a lower amount of stable funding compared to funds invested in other types of less liquid assets.

- S** 13.2 A banking institution shall submit all completed reporting templates to the Bank through Statistical Mart for Analysis and Reporting (STATsmart) no later than 30 calendar days from reporting position date. Hardcopy submissions are not accepted.

Specific reporting requirements

- S** 13.3 A banking institution shall provide supplementary information for the stable and less stable deposits that meet the conditions of *qualifying retail term deposits*⁴⁴ and for term funding that meet the conditions of *qualifying wholesale term funding*⁴⁵ in the “NSFR_Main” worksheet. These term deposits and term funding shall be reported according to contractual residual maturity.
- S** 13.4 In completing Panel D of the “NSFR_Main” worksheet, a banking institution shall:
- (a) report the amount of interdependent asset and liabilities only after obtaining the Bank’s approval to adjust the RSF and ASF factors as specified in paragraph 11.2; and
 - (b) add additional rows, if necessary.
- S** 13.5 In completing Panel E of the “NSFR_Main” worksheet, a banking institution shall report the amount of assets that are encumbered for central bank liquidity operations based on communication by the Bank in relation to paragraph 9.24.
- S** 13.6 A banking institution shall provide supplementary information on the composition of other assets (row 192) and other liabilities (row 55) in the “NSFR_Supp” worksheet. The largest ten items reported under the category (before applying the RSF and ASF factors) shall be separately disclosed while other items shall be reported under “residual items”.

Question 7 (General)

In relation to the computation of SRA balances, does your institution have the capability to compute eligible liabilities on a daily basis? Please describe the challenges that your institution may face in achieving this.

⁴⁴ As defined in paragraph 14.8 of the LCR.

⁴⁵ As defined in paragraph 15.3 of the LCR.

APPENDICES**Appendix 1: Summary of liability categories and associated ASF factors**

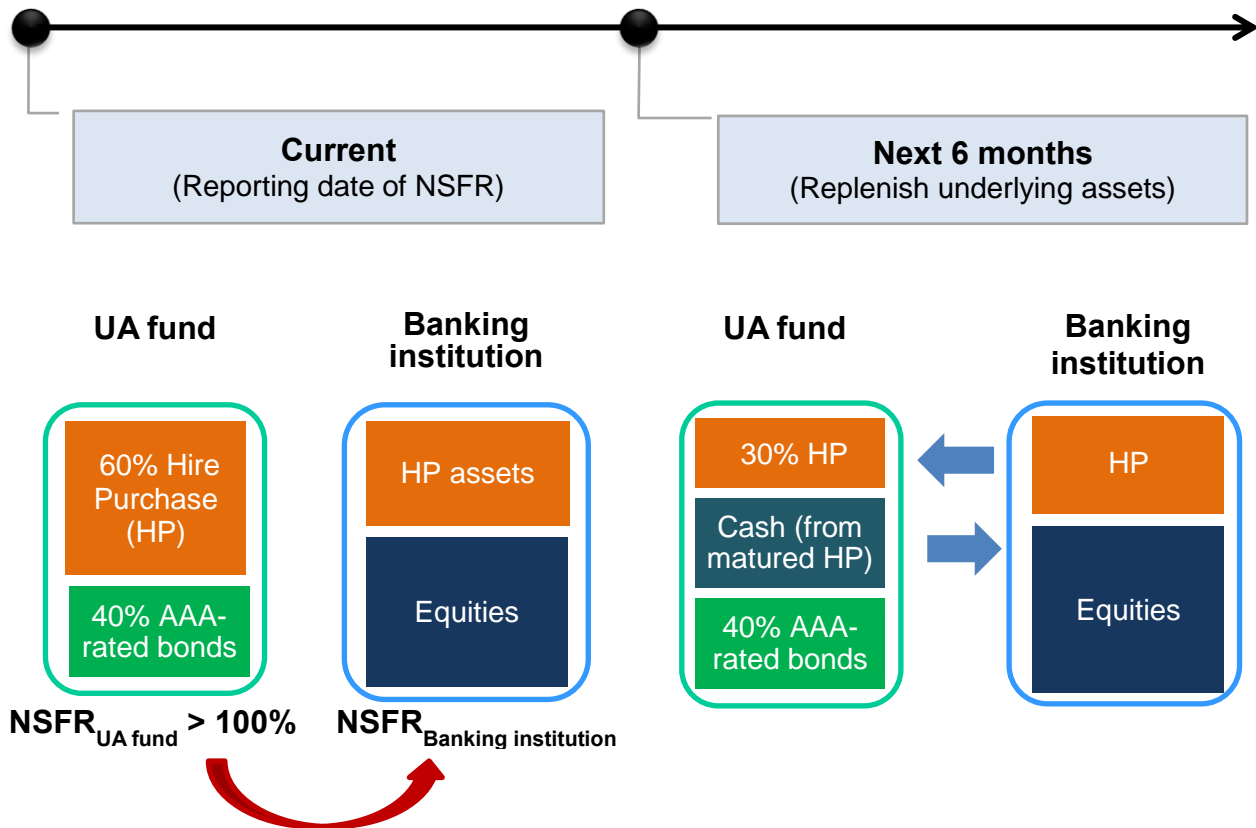
ASF factor	Components of ASF category
100%	<ul style="list-style-type: none"> • All capital and liability instruments with residual maturity of one year or more
95%	<ul style="list-style-type: none"> • Stable demand deposits and term deposits with residual maturity of less than one year from retail and small business customers
90%	<ul style="list-style-type: none"> • Less stable demand deposits and term deposits with residual maturity of less than one year from retail and small business customers • Funding from securities sold exclusively to retail and small business customers with residual maturity of less than one year
50%	<ul style="list-style-type: none"> • Operational deposits with residual maturity of less than one year • Funding from non-financial corporates, sovereigns, PSEs, and MDBs with residual maturity of less than one year • Other funding, including funding from financial institutions and central banks, with residual maturity between six months and less than one year not included in the above categories
0%	<ul style="list-style-type: none"> • All other capital and liability instruments not included in the above categories, including funding from financial institutions and central banks, with a residual maturity of less than six months • Liabilities without a stated maturity (with specific treatment for deferred tax liabilities and minority interests) • NSFR derivative liabilities net of NSFR derivative assets, if NSFR derivative liabilities are greater than NSFR derivative assets • “Trade date” payables

Appendix 2: Summary of asset categories and associated RSF factors

RSF factor	Components of RSF category
0%	<ul style="list-style-type: none"> • Coins and banknotes • All central bank reserves • All claims on central banks with residual maturities of less than six months • “Trade date” receivables
5%	<ul style="list-style-type: none"> • Unencumbered Level 1 HQLA (excluding those that receive a 0% RSF factor)
10%	<ul style="list-style-type: none"> • Unencumbered loans or financing to financial institutions with residual maturities of less than six months, where the loan or financing is secured against Level 1 HQLA, and where the bank has the ability to freely rehypothecate the received collateral for the life of the loan or financing
15%	<ul style="list-style-type: none"> • Unencumbered Level 2A HQLA • Debt securities issued by non-financial corporates rated between AA- and AA+ • Non-operational deposits held at financial institutions with residual maturity of less than six months • All other unencumbered loans or financing to financial institutions with residual maturities of less than six months not included in the above categories
50%	<ul style="list-style-type: none"> • Unencumbered Level 2B HQLA (excluding those that receive a 15% RSF factor) • Qualifying common equity shares • Debt securities issued by non-financial corporates rated between A- and A+ • Non-operational deposits held at financial institutions and central banks with a residual maturity of between six months and less than one year • Loans or financing to financial institutions and central banks with residual maturities between six months and less than one year • Operational deposits held at financial institutions with a residual maturity of less than one year • All other assets not included in the above categories with residual maturity of less than one year, including loans or financing to non-financial corporates, retail and small business customers, sovereigns, PSEs and MDBs

65%	<ul style="list-style-type: none"> • Unencumbered residential mortgages with a residual maturity of one year or more and with a risk weight of less than or equal to 35% under the standardised approach for credit risk • Other unencumbered loans or financing not included in the above categories, excluding loans or financing 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 standardised approach for credit risk
85%	<ul style="list-style-type: none"> • Cash, debt securities or other assets posted as initial margin for derivative contracts (excluding those that receive a 100% RSF factor) • Cash or other assets provided to contribute to the default fund of a CCP • Other unencumbered performing loans or financing with risk weights greater than 35% under the standardised approach for credit risk and have residual maturities of one year or more, excluding loans or financing to financial institutions • Unencumbered debt securities that are not in default and do not qualify as HQLA with a remaining maturity of one year or more • Exchange-traded equities that do not receive a 50% RSF factor • Physical traded commodities, including gold
100%	<ul style="list-style-type: none"> • All assets that are encumbered for a period of one year or more • NSFR derivative assets net of NSFR derivative liabilities, if NSFR derivative assets are greater than NSFR derivative liabilities • 20% of derivative liabilities • All other assets not included in the above categories, including non-performing loans or financing, loans or financing to financial institutions and central banks 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

Appendix 3: Example of an asset purchase through excess amount in UA fund



In this example, HPs meet the criteria for eligible assets (paragraph 12.12). 60% of the UA fund’s excess amount can thus be recognised in the banking institution’s NSFR (i.e. reduce RSF of the banking institution)

Cash from matured HP is used to purchase the banking institution’s HP assets

- Up to 60% of the UA fund can be used to acquire the banking institution’s HP assets within the next one year. This is assuming that the banking institution’s HP assets will continue to be available for purchase by the UA fund (unencumbered) within the next one year.
- Hence, the maximum amount of the excess of ASF over RSF of the UA fund that can be recognised is limited to the lower of the amount of HP available in the banking institution and the amount equivalent to 60% of the UA fund.
- The banking institution shall not use the excess from the UA fund to purchase its equities, as equities are not included in the investment mandate of the UA fund in this example.
- After six months, half of the UA fund’s HP assets mature. Since the maturity is earlier than the redemption date of IAH (as reflected by the excess amount), cash proceeds from matured assets can be used to replenish HP assets from the banking institution.

Appendix 4: Illustration on the treatment for deficit and excess amount in UA funds

