GUIDELINES ON BANKING AND ISLAMIC BANKING

CAPITAL ADEQUACY FRAMEWORK

(RISK-WEIGHTED ASSETS)

APPENDICES

PART A OVERVIEW

A.1 INTRODUCTION

1.1 The *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Risk Weighted Assets)* are part of the Banking Capital Adequacy Framework (BCAF) and Islamic Banking Capital Adequacy Framework (iBCAF) which quantifying the Risk Weighted Assets (RWA). The Guidelines constitute components of the capital adequacy ratio requirements and are to be read together with the following guidelines:

(i) *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Capital Components)*;

(ii) *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*; and

(iii) *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Operational Risk)*.

1.2 The computation of the risk-weighted assets is consistent with Pillar 1 requirements set out by the Basel Committee on Banking Supervision (BCBS) and the Islamic Financial Services Board (IFSB) in their respective documents - "International Convergence of Capital Measurement and Capital Standards: A Revised Framework" issued in June 2006 (Basel II).

1.3 The requirements set out by the BCBS are intended to improve the overall risk sensitivity of the capital adequacy framework. However, they may not be sufficient to reflect the actual risk profile of Labuan banks operating in emerging markets.

1.4 While Labuan FSA believes that such customisation could be justified, a pragmatic approach is adopted for implementation. Higher prudential requirements and risk management standards would be introduced gradually, taking into consideration industry experience to ensure effective implementation over time. Similarly, prioritisation and timing for the introduction of additional adjustments or

customisation would be determined based on the long-term benefits of promoting prudent practices within the Labuan banking industry.

1.5 As we gain more reliable data and experience over time, a more thorough assessment would also be undertaken to consider the introduction of other adjustments as deemed necessary by Labuan FSA. It is important to emphasise that Labuan FSA may also exercise its discretion under the Supervisory Review Process, or Pillar 2 to impose higher capital requirements or prudential standards on individual institutions if Labuan FSA is of the view that the actual risk profiles of these institutions are significantly underestimated by the framework are not satisfactory.

1.6 Notwithstanding the requirements under the BCAF and iBCAF, a fundamental supervisory expectation is for all Labuan banks to have in place comprehensive risk management policies and processes that effectively identify, measure, monitor and control risks exposures of the institution and is subjected to appropriate board and senior management oversight. This supervisory expectation is further detailed in the guidelines on corporate governance and other relevant risk management standards and requirements set by Labuan FSA. The assessment on the adherence to the standards and requirements set by Labuan FSA would be a key component of the overall supervisory review process in determining appropriate supervisory actions against Labuan banks.

A.2 APPLICABILITY

1.7 The Guidelines are applicable to all Labuan banks as listed below:

(i) Labuan banks and Labuan investment banks licensed under Part VI of the Labuan Financial Services and Securities Act 2010 (LFSSA);

(ii) Labuan Islamic banks and Labuan Islamic investment banks licensed under Part VI of the Labuan Islamic Financial Services and Securities Act 2010 (LIFSSA); and

(iii) Labuan banks and Labuan investment banks undertaking Labuan Islamic banking business or Labuan Islamic investment banking business approved under Part VI of the LIFSSA.

Under the Guidelines, the term "Labuan bank(s)" refers collectively to all Labuan banking licensees as specified under paragraph 1.7.

1.8 For the avoidance of doubt, the Guidelines are not applicable to Labuan banks operating as branches.

1.9 Effective 1 July 2027, the following guidelines shall no longer be applicable to the Labuan banks:

(i) *Guidelines on Risk-Weighted Capital Adequacy* issued on 23 April 1997;
(ii) *Guidelines on Risk-Weighted Capital Adequacy* issued on 29 September 1997;
(iii) *Guidelines on Risk-Weighted Capital Ratio (RWCR) for Subsidiary Banks* issued on 10 March 2006;
(iv) *Guidelines on RWCR for Subsidiary Banks* issued on 7 July 2009;
(v) *Banking Capital Adequacy Framework: Guidelines on Capital Components* issued on 30 December 2016; and
(vi) *Banking Capital Adequacy Framework: Guidelines on Risk Weighted Assets* issued on 30 December 2016.

A.3 LEGAL PROVISION

1.10 The Guidelines are issued pursuant to Section 4A of the Labuan Financial Services Authority Act 1996 (LFSAA) for the purpose of specifying the maintenance of capital adequacy ratio under Section 94 of the LFSSA and Section 69 of the LIFSSA.

1.11 Any person who fails to comply with the Guidelines may be subject to enforcement actions which include an administrative penalty under Section 36B and Section

36G of the LFSAA and/or other enforcement action provided under the LFSAA, or other applicable laws governed by Labuan FSA.

A.4 EFFECTIVE DATE

1.12 The Guidelines will come into effect on **1 July 2027** and would remain effective and applicable unless amended or revoked.

A.5 PRIOR APPROVAL REQUIRED

1.13 In relation to any application which requires prior approval by Labuan FSA, Labuan banks shall submit the application to Labuan FSA's Supervision Department as follows:

Director
Supervision Department
Labuan Financial Services Authority
Level 17, Main Office Tower,
Financial Park Complex
87000 Federal Territory of Labuan, Malaysia

Telephone no: 03 8873 2000
Facsimile no: 03 8873 2209
Email: sed@labuanfsa.gov.my

PART B CREDIT RISK [DELETED]

PART C OPERATIONAL RISK [DELETED]

PART D MARKET RISK

D.1 INTRODUCTION

4.1 Market risk is defined broadly as the risk of losses in on- and off-balance sheet positions arising from movements in market prices. This part outlines the applicable approaches to determine the level of capital to be held by a Labuan bank against the market risk in its trading book, which comprises of:

(i) interest/benchmark rate risk[1] and equity risks pertaining to financial instruments in the trading book;

(ii) foreign exchange risk and commodities risk in the trading and banking books; and

(iii) inventory risk arising from Labuan banks undertaking Islamic banking business activities.

4.2 In determining the consolidated minimum capital requirement, market risk positions in each subsidiary can be netted against positions in the remainder of the group if:

(i) the risk positions of the group are centrally managed; and

(ii) there are no obstacles to quick repatriation of profits from a foreign subsidiary or legal and procedural difficulties in operationalising timely risk management on a consolidated basis.

Scope of the Capital Charges

4.3 The market risk capital charge in the Guidelines is divided into interest/benchmark rate risk, equity risk, foreign exchange risk, commodities risk and inventory risk charges. Labuan banks that have any exposure arising from investment account

[1] Also known as profit rate risk.

placements made with Islamic banking institutions or Islamic banking operations shall be subject to the 'look-through' approach as described in **Appendix VI**.

4.4 The capital charges for interest/benchmark rate risk and equity risk are applied to the current market value of interest/benchmark rate and equity related financial instruments or positions in the trading book. The capital charge for foreign exchange risk, commodities risk and inventory risk however are applied to all foreign currency[2] and commodities positions. Some of the foreign exchange and commodity positions will be reported and hence evaluated at market value, while some may be reported and evaluated at book value.

Approaches to Measuring Market Risks

4.5 In measuring capital charge for market risk, Labuan banks have to use the standardised approach. The standardised approach is based on a building block approach where standardised supervisory capital charge is applied separately to each risk category.

D.1.1 PRUDENT VALUATION GUIDANCE

4.6 This part provides Labuan banks with guidance on prudent valuation for positions in the trading book. This guidance is especially important for less liquid positions which, although not excluded from the trading book solely on grounds of lesser liquidity, would raise issues relating to valuation.

4.7 A framework for prudent valuation practices should at a minimum adhere to the requirements specified in paragraph 4.8 to 4.14, covering systems and controls, valuation methodologies, independent price verification, valuation adjustments/reserves.

[2] However, Labuan banks are given some discretion to exclude structural foreign exchange positions from the computation.

Systems and Controls

4.8 Labuan banks must establish and maintain adequate systems and controls sufficient to give the management and Labuan FSA's supervisors the confidence that valuation estimates are prudent and reliable. These systems must be integrated with other risk management systems within the organisation (such as credit analysis). Such systems must be supported by:

(i) Board-approved policies and procedures on valuation process. This includes clearly defined responsibilities of the various parties involved in the valuation process, sources of market information and review of their appropriateness, frequency of independent valuation, method of determining closing prices, procedures for adjusting valuations, end of the month and ad-hoc verification procedures; and

(ii) Clear and independent (i.e. independent of front office) reporting lines for the department accountable for the valuation process.

Valuation Methodologies

4.9 Labuan banks should mark-to-market portfolio positions, at least on daily basis, based on close out prices that are sourced independently. Examples of readily available close out prices include exchange prices, screen prices, or quotes from several independent reputable brokers. The more prudent side of bid/offer must be used unless the Labuan bank is a significant market maker in a particular position type and it can close out at mid-market.

4.10 Where mark-to-market is not possible, Labuan banks may mark-to-model, where this can be demonstrated to be prudent. Marking-to-model is defined as any valuation which has to be benchmarked, extrapolated or otherwise calculated from a market input. When marking to model, an extra degree of conservatism is appropriate. Labuan FSA will consider the following in assessing whether a mark-to-model valuation is prudent:

(i) Senior management awareness on the assumptions used in constructing the model and their understanding on the materiality of the assumptions used and its impacts in the reporting of the risk/performance of the business;

(ii) Regular review of the appropriateness of the market inputs for the particular positions. Market input for instance, should reflect market prices to the extent possible;

(iii) Consistent adoption of generally accepted valuation methodologies for particular products, where available and appropriate;

(iv) Use of appropriate assumptions, which have been assessed and challenged by suitably qualified parties independent of the development process. In cases where the models are internally developed, the model should be developed or approved independently of the front office. It should be independently tested. This includes validating the mathematics, the assumptions and the software implementation;

(v) Formal change control procedures in place to govern any changes made to the model and a secure copy of the model should be held and periodically used to check valuations;

(vi) Risk managers awareness of the weaknesses of the models used and how best to reflect those in the valuation output;

(vii) Periodic review to determine the accuracy of the model's performance (for example, assessing continued appropriateness of the assumptions, analysis of P&L versus risk factors, comparison of actual close out values to model outputs); and

(viii) Formal valuation adjustments in place where appropriate, for example, to cover the uncertainty of the model valuation.

Independent Price Verification

4.11 In addition, Labuan banks should also conduct regular independent verification of market prices or model inputs for accuracy. Verification of market prices or model

inputs should be performed by a unit independent of the dealing room, at least monthly (or, depending on the nature of the market/trading activity, more frequently). It need not be performed as frequently as daily mark-to-market, since the objective is to reveal any error or bias in pricing, which should result in the elimination of inaccurate daily marking.

4.12 Independent price verification should be subjected to a higher standard of accuracy since the market prices or model inputs would be used to determine profit and loss figures, whereas daily markings are used primarily for management reporting in between reporting dates. For independent price verification, where pricing sources are more subjective, for example, only one available broker quote, prudent measures such as valuation adjustments may be appropriate.

Valuation Adjustments

4.13 Labuan banks must establish and maintain procedures for considering valuation adjustments which should be deducted in the calculation of CET1 Capital. The following valuation adjustments shall be formally considered where relevant: unearned credit spreads, close-out costs, operational risks, early termination, investing and funding costs, future administrative costs and, if appropriate, model risk.

4.14 In addition, a Labuan bank shall consider the need for establishing an appropriate adjustment/reserves for less liquid positions. The appropriateness of the adjustments/reserves shall be subjected to an ongoing review. Reduced liquidity could arise from structural and/or market events. In addition, close-out prices for concentrated positions and/or stale positions are more likely to be adverse. Labuan banks shall, at the minimum, consider several factors when determining whether valuation adjustment/reserve is necessary for less liquid items. These factors include the amount of time it would take to hedge out the risks within the position, the average volatility of bid/offer spreads, the availability of market quotes (number and identity of market makers), and the average and volatility of trading volumes.

D.1.2 CLASSIFICATION OF FINANCIAL INSTRUMENTS

Trading Book Policy Statement

4.15 Labuan banks must have a trading book policy statement with clearly defined policies and procedures for determining which exposures to include in, and to exclude from, the trading book for purposes of calculating regulatory capital. Board and senior management of Labuan banks should ensure compliance with the criteria for trading book set forth in this chapter taking into account the Labuan bank's risk management capabilities and practices. In addition, compliance with these policies and procedures must be fully documented and subject to periodic internal audit. This policy statement and material changes to it would be subject to Labuan FSA's review.

4.16 These policies and procedures should, at a minimum, address the following general considerations:

(i) Activities Labuan bank considers as trading and what constitute part of the trading book for regulatory capital purposes;

(ii) The extent to which an exposure can be marked-to-market daily by reference to an active, liquid two-way market;

(iii) For exposures that are marked-to-model, the extent to which Labuan bank can:

(a) identify the material risks of the exposure;
(b) hedge the material risks of the exposure and the extent to which hedging instruments would have an active, liquid two-way market;
(c) derive reliable estimates used in the model based on reasonable assumptions and acceptable parameters.

(iv) The extent to which a Labuan bank can and is required to generate valuations for exposure that can be validated externally in a consistent manner;

(v) The extent to which legal restrictions or other operational requirements would

impede Labuan bank's ability to effect an immediate liquidation of the exposure;

(vi) The extent to which the Labuan bank is required to, and can, actively risk manage the exposure within its trading operations; and

(vii) The extent to which the Labuan bank may transfer risk or exposures between the banking and the trading books and criteria for such transfers.

4.17 The above considerations, however, should not be treated as an exhaustive and rigid set of tests that a product or group of related products must pass for eligibility in the trading book. Rather, the list should serve as minimum or most fundamental areas for considerations for overall management of a Labuan bank's trading book. It should also be supported by detailed policies and procedures.

Definition of Trading Book

4.18 The trading book consists of positions in financial instruments and commodities held either with trading intent or to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either:

(i) be free of any restrictive covenants on tradability; or
(ii) be able to be hedged.

In addition,

(iii) positions should be frequently and reliably valued; and
(iv) portfolio is actively managed.

4.19 Positions held with trading intent are those held intentionally for short-term resale and/or with the intent of benefiting from actual or expected short-term price movements or to lock in arbitrage profits. These positions may include for example, proprietary positions, positions arising from client servicing and market making.

Financial Instruments

A financial instrument is a contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity. Financial instruments include both primary financial instruments (or cash instruments) and derivative financial instruments.

A financial asset is any asset that is cash, the right to receive cash or another financial asset; or the contractual right to exchange financial assets on potentially favourable terms; or an equity instrument. A financial liability is the contractual obligation to deliver cash or another financial asset or to exchange financial liabilities under conditions that are potentially unfavourable.

4.20 The following are the basic eligibility requirements for positions to receive trading book capital treatment:

(i) Clearly documented overall trading strategy for positions/portfolios contained within the trading book as approved by senior management (which would include expected holding horizon etc.).

(ii) Clearly defined policies and procedures for active management of the positions, which must include requirements for:

(a) management of positions by a trading desk;
(b) setting and monitoring of position limits to ensure their appropriateness;
(c) dealers to be given the autonomy to enter into or manage the position within agreed limits and according to the agreed strategy;
(d) marking-to-market of positions at least daily and when marking-to-model, relevant parameters (for example volatility inputs, market risk factors, etc) to be assessed regular basis;
(e) reporting of positions to senior management as an integral part of the Labuan bank's risk management process; and

(f) actively monitoring of positions with references to market information sources (assessment should be made of the market liquidity or the ability to hedge positions or the portfolio risk profiles). This would include assessing the quality and availability of market inputs to the valuation process, level of market turnover, size of positions traded in the market, etc.

(iii) Clearly defined policies and procedures to monitor the positions against the Labuan bank's trading strategy including the monitoring of turnover and stale position in the Labuan bank's trading book.

4.21 All other exposures that are not defined as trading book positions should be classified as exposures in the banking book. This will include both on- and off-balance sheet positions.

Classification of Specific Financial Instruments

4.22 Equity investments called for by the Federal Government of Malaysia or Central Bank of Malaysia, shall be treated as banking book positions where the capital requirement is set forth in paragraph 21.4 of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk).*

4.23 All defaulted financial instruments will be treated as banking book positions and will be subjected to the capital requirement of the Guidelines.

4.24 In general, all derivative instruments should be classified in the trading book except for derivatives which qualify as hedges for banking book positions. However, certain credit derivatives instruments and structured investments may be classified as banking book positions particularly for long-term investments which are illiquid and/or have significant credit risk elements.

4.25 The classification of the repo/sell and buy back agreement (SBBA) and reverse repo/SBBA transactions shall be assessed based on the trading book definition outlined in paragraphs 4.18 to 4.21.

D.1.3 TREATMENT OF MONEY MARKET INSTRUMENTS IN TRADING BOOK

4.26 Money market transactions such as the issuance and purchase/acquisition of Negotiable Instruments of Deposits (NIDs)/Islamic negotiable instruments, treasury bills/Islamic treasury bills, bankers' acceptances/Islamic accepted bills, commercial papers/Islamic commercial papers and interbank borrowings and lendings/Islamic interbank acceptances and investments that fulfil the requirements set forth in paragraphs 4.18 to 4.21 may be recognised in the trading book. In addition, these transactions should be undertaken based on market rates/price and appropriately identified[3] by the trading desk at deal inception as transactions made with the trading intent consistent with the definition in paragraph 4.19. Customer deposits and loans/financing do not qualify for this treatment since these products fall outside the definition of money market instruments.

Controls to Prevent Regulatory Capital Arbitrage

4.27 Regulatory capital arbitrage arises when a position attracts a different regulatory capital requirement depending on its classification. It is the responsibility of Labuan banks' compliance officers, risk manager and/or internal auditors to ensure that proper procedures are in place, and items are properly classified into either the trading or banking books.

4.28 Labuan banks must ensure that classification of financial instruments are determined up-front and clear audit trails are created at the time the transactions are entered into, to facilitate monitoring of compliance. These audit trails and documentation should be made available to Labuan FSA's supervisors upon request.

4.29 To ensure that financial instruments held for trading are not included in the banking book, financial instruments in the banking book shall not be sold unless prior

[3] The identified money market transactions may be entered with either a third party or with the banking book desk (internal deals). In addition to the requirements set in paragraph 4.30, internal deals must be institutionalised and documented in banking institutions' policies and procedures and should be supported by a robust fund transfer pricing (FTP) system.

approval of the Board has been obtained. In turn, the Board shall ensure that there is no element of intention to trade when selling banking book positions. Each Labuan bank shall include this requirement in the trading book policy statement.

4.30 Authority to sell banking book instruments may be delegated to Asset and Liability Management Committee (ALCO) or Risk Management Committee (RMC) or any board-appointed signatories provided that the board spells out the specific policies under which such delegation may be applied. The policy should include at the minimum the following parameters:

(i) the sale does not tantamount to a trading position; and

(ii) the Board be informed of the sale of the banking book instruments soonest possible.

4.31 Supervisory intervention involving remedial actions may be instituted if there is evidence that Labuan banks undermine the capital adequacy requirements through improper classification of financial instruments between the trading and banking books. Labuan FSA may, for instance, require Labuan banks to reclassify banking book positions which exhibit patterns of regular trading to the trading book and vice versa.

Treatment of Hedging Positions

4.32 In general, a hedge can be defined as a position that materially or entirely offsets the component risk elements of another position or portfolio.

4.33 Labuan banks are required to have board-approved written policies which document the criteria of a hedge position and its effectiveness[4]. Labuan banks are required to identify hedge positions at the time the hedging positions are created and to monitor and document with clear audit trails the subsequent performance of the positions.

[4] Labuan FSA does not expect the standards for hedging requirements for purpose of this Guidelines to be identical to that required under the accounting standards.

4.34 Trading book positions entered with a third party to hedge banking book positions are carved out and not subject to market risk capital charge provided the following conditions are satisfied:

(i) Approval of ALCO/RMC or any authorities delegated by the Board is obtained with endorsement that the positions comply with internal hedge policies;

(ii) At the inception of the hedge, there is proper documentation of the hedge relationship and the Labuan bank's risk management objectives and strategy for undertaking the hedge. Documentation should include:

(a) the description of the hedge and the financial instruments designated as the hedging instruments and their values;
(b) the nature of the risk being hedged and demonstrate how the risk is being reduced by the hedge;
(c) defining the acceptable level of hedging effectiveness and periodically assessing the hedging instrument's effectiveness in offsetting the risk of the underlying exposure; and
(d) the treatment of the hedging instrument and the underlying exposure when the hedge ceases to be effective.

(iii) The identification and tagging of the underlying hedged portfolio/ transaction and hedge instrument are done upfront; and

(iv) The hedge is materially effective in offsetting the risk element of the hedged exposure. The actual performance of the hedge should be back tested against the expected performance as documented at inception. When the hedge position ceases to be effective or when the underlying banking book position ceases, the hedging relationship should be derecognised. The derivatives/hedge instrument should be reclassified as trading book transactions and be subject to market risk capital charge.

4.35 When internal hedging transactions are entered into between the trading and banking book to hedge banking book market risk exposures, the trading book leg of the transaction shall be subject to market risk capital charge provided that the internal hedging transaction complies with the requirements set in paragraph 4.34.

4.36 However, internal hedging transactions between the trading and banking book to hedge a banking book credit risk exposure using a credit derivative are not recognised for capital purposes unless the Labuan bank purchases a credit derivative meeting the requirements of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)* from an eligible third party protection provider. Where such third party protection is purchased and is recognised as a hedge of a banking book exposure for regulatory capital purposes, the internal or external credit derivative hedge would be carved out from the trading book and would not be subject to the regulatory capital in this Guidelines.

D.1.4 TREATMENT OF COUNTERPARTY CREDIT RISK IN THE TRADING BOOK

4.37 Labuan banks will be required to calculate the counterparty credit risk charge for over the counter (OTC) derivatives, repo-style/SBBA and other transactions classified in the trading book, in addition to the capital charge for general market risk and specific risk.[5] The calculation of the counterparty credit risk charge will be based on the approaches as prescribed in the credit component of the Guidelines. Labuan banks using the standardised approach in the banking book will use the standardised approach risk weights in the trading book.

4.38 Instruments in the trading book that are held under reverse repo transactions may be used as eligible collaterals. The haircut treatment for these eligible collaterals is prescribed in the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*.

[5] The treatment for unsettled FX and securities trades is set forth in the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*.

Credit Derivatives

4.39 The counterparty credit risk charge for single name credit derivative transactions in the trading book will be calculated using the following potential future exposure add-on factors:

	Protection Buyer	Protection Seller
Total Return Swap		
Investment grade reference obligation	5%	5%
Non investment grade reference obligation	10%	10%
Credit Default Swap		
Investment grade reference obligation	5%	5%*
Non investment grade reference obligation	10%	10%*

There will be no difference depending on residual maturity.

Investment grade refers to securities with an external credit rating of BBB+ and above.

* The protection seller of a credit default swap shall only be subject to the add-on factor where it is subject to closeout upon the insolvency of the protection buyer while the underlying is still solvent. Add-on should then be capped to the amount of unpaid premiums.

4.40 Where the credit derivative is a first to default transaction, the add-on will be determined by the lowest credit quality underlying in the basket that is if there are any non-qualifying items in the basket, the non-qualifying reference obligation add-on should be used. For second and subsequent to default transactions, underlying assets should continue to be allocated according to the credit quality that is the

second lowest credit quality will determine the add-on for a second to default transaction etc.

D.2 THE STANDARDISED MARKET RISK APPROACH

D.2.1 INTEREST/PROFIT RATE RISKS

4.41 This part describes the standard framework for measuring the risk of holding or taking positions in debt securities/sukūk[6] and other interest/profit rate related financial instruments under the trading book, which include the followings:

(i) Fixed and floating rate debt securities/sukūk and instruments that have similar characteristics as debt securities/sukūk, which includes non-convertible preference shares;

(ii) Interest/benchmark rate risk exposures arising from forward foreign exchange transactions, derivatives and forward sales and purchases of securities[7]; and

(iii) Convertible bonds/sukūk, that is debt issues or preference shares that are convertible into common shares of the issuer, will be treated as debt securities/sukūk if the instruments trade like debt securities/sukūk or as equities.

4.42 The market price of financial instruments is normally affected by general changes in the market interest/benchmark rate and factors related to a specific issuer, especially issuer's credit quality. These risks are also known as general risk and specific risk respectively.

4.43 The summation of capital charges arising from exposure to the following risks shall represent minimum capital requirement to cover the interest/benchmark rate risk:

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6 Includes private commercial enterprise's sukūk trading activities where the Islamic banking operation has mushärakah and/or muḍärabah financing.

7 This includes primary issuance or underwriting of debt securities where rates have been fixed upfront for which the position would be treated as a bond forward or bond option transaction. Refer to Part D.2.6 Treatment of Options - Underlying Position Approach for capital charge calculation.

(i) Specific risk of each security/sukūk, whether it is a short or a long position; and

(ii) General market risk where long and short positions in different securities/ sukūk or instruments may be offset.

Specific Risk

4.44 The capital requirement for specific risk is designed to protect against adverse movements in the price of an individual security due to the factors with respect to the issuer. In measuring the risk, offsetting will be restricted to matched positions in the identical issue. Offsetting is not permitted between different issues even for the same issuer given that the prices may diverge in the short run due to the differences in the coupon/profit rates, liquidity, call features, etc.

Specific Risk Capital Charges for Issuer Risk

4.45 Table 2 provides the applicable specific risk charges for interest/profit rate related financial instruments for issuers of G10[8] and non-G10 countries.

4.46 The specific risk charges for the holding of interest/benchmark rate related financial instruments issued by Labuan banks will be based on the external ratings[9] of the Labuan banks while the specific risk charges for the holding of interest/banchmark rate related financial instruments issued by foreign sovereigns will be based on the external ratings of the foreign sovereigns. For example, if a Labuan bank holds a 5-year sovereign debt paper which has a sovereign rating of A, the specific risk charge will be 1.6% as provided in Table 2. In the case of interest/benchmark rate related financial instruments issued by corporates, in addition to maturity and external ratings, the country of establishment (that is G10 or non-G10) is also a factor in determining the amount of specific risk weights. For

[8] The Group of Ten (G10) is made up of eleven industrial countries namely Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom and the United States.

[9] As illustrated in Table 2 or the equivalent standard rating category as specified in the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*.

example, the holding of a AA rated Malaysian corporate debt paper with maturity of 3 years will attract a specific risk charge of 2.0%.

Table 2: Specific Risk Charges for Interest/Profit Rate Related Financial Instruments

	Remaining Maturity									
	<= 6 mths		> 6m to 1 yr		> 1 to 2 yrs		> 2 to 5 yrs		> 5 yrs	
	G10 (%)	Non G10 (%)	G10 (%)	Non G10 (%)	G10 (%)	Non G10 (%)	G10 (%)	Non G10 (%)	G10 (%)	Non G10 (%)
Corporates & Securitisations$^{\Omega}$										
P1 to P3^{e}	0.25	0.25	1.00	1.00						
AAA to A-	0.25	0.25	1.00	1.00	1.00	2.00	1.60	2.00	1.60	3.00
BBB+ to BBB-	0.25	0.25	1.00	1.00	1.00	2.00	1.60	3.50	1.60	4.50
BB+ to B-	8.00									
Below B-	12.00									
Unrated	8.00									
Banking Institutions$^{\wedge}$										
AAA to A-	0.25		1.00		1.00		1.60		1.60	
BBB+ to BBB-	0.25		1.00		2.00		2.00		3.00	
BB+ to B-	8.00									
Below B-	12.00									
Unrated	0.25		1.00		2.00		2.00		3.00	
Public Sector Entities (PSE)*	0.25		1.00		1.00		1.60		1.60	
Malaysian Government$^{\#}$	0									
Foreign Sovereigns										
AAA to AA- §	0									
A+ to BBB-	0.25		1.00		1.00		1.60		1.60	

BB+ to B-	8.00
Below B-	12.00
Unrated	8.00

ɵ Also applicable for exposures to IILM Sukūk.

Ω A specific risk charge of 100 would apply for securitisation exposures held in the trading book if that exposure is subject to a 1250% risk weight if held in the banking book.

^ Including interest/profit rate related financial instruments issued and guaranteed by licensed banking institutions and licensed development financial institutions as well as Multilateral Development Banks (MDBs) which do not qualify for preferential risk weight described in paragraph 17.0 of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*.

* Refer to the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)* for the criteria of PSE.

Including interest/profit rate related financial instruments issued or guaranteed by the Malaysian Government or BNM, as well as securities issued through special purpose vehicles e.g. BNM Sukūk Ijarah and BNMNi-Murabahah issued through BNM Sukūk Berhad. However, Labuan banks shall apply the look-through approach as specified under **Appendix VI** for BNM *Mudarabah* certificate (BMC).

§ Including exposures to highly-rated Multilateral Development Banks (MDBs) that qualify for the preferential risk weight as described in paragraph 17.0 of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*.

4.47 There may be certain cases where specific risk is considerably underestimated for debt instruments/*Sukuk* which have a high yield to redemption relative to government debt securities/*Sukuk*. In this instance, Labuan FSA may:

(i) require Labuan banks to apply a higher specific risk charge to such instruments; and/or

(ii) disallow offsetting for the purposes of defining the extent of general market risk between such instruments and any other debt instruments.

4.48 Securitisation exposures held in the trading book shall be subject to the capital requirements in the market risk component of this Guidelines, applying the specific risk charges applicable to corporates as per Table 2. However, exposures subjected to a risk weight of 1250% under the Securitisation Framework should similarly be subjected to a 100% capital charge if they are held in the trading book. As an exception, the treatment specified in paragraph 6.11 need not apply for such securitisation exposures retained in the trading book during the first 90 days from the date of issuance.

Specific Risk Capital Charges for Positions Hedged by Credit Derivatives

4.49 Full allowance will be recognised when the values of two legs (that is long and short) always move in the opposite direction and broadly to the same extent. This would be the case in the following situations:

(i) the two legs consist of completely identical instruments; or

(ii) a long cash position is hedged by a total rate of return swap (or vice versa) and there is an exact match between the reference obligation and the underlying exposure (that is the cash position).

In these cases, no specific risk capital requirement applies to both sides of the position.[10]

4.50 An 80% offset will be recognised when the value of two legs (that is long and short) always moves in the opposite direction but not broadly to the same extent. This would be the case when a long cash position is hedged by a credit default swap or a credit linked note (or vice versa) and there is an exact match in terms of the reference obligation, the maturity of both the reference obligation and the credit derivative, and the currency to the underlying exposure. In addition, key features of the credit derivative contract (for example credit event definitions, settlement mechanisms) should not cause the price movement of the credit derivative to materiallydeviate from the price movements of the cash position. To the extent that the transaction transfers risk (that is taking account of restrictive payout provisions such as fixed payouts and materiality thresholds), an 80% specific risk offset will be applied to the side of the transaction with the higher capital charge, while the specific risk requirement on the other side will be zero.

4.51 Partial allowance will be recognised when the values of the two legs (that is long and short) usually moves in the opposite direction. This would be the case in the following situations:

[10] The maturity of the swap itself may be different from that of the underlying exposure.

(i) the position is captured in paragraph 4.49 (ii), but there is an asset mismatch between the reference obligation and the underlying exposure. Nonetheless, the position meets the requirements spelt out in the 'Additional Operational Requirements for Credit Derivatives' in the credit risk component of this framework.

(ii) the position is captured in paragraphs 4.49 (i) or 4.50 but there is a currency or maturity mismatch[11] between the credit protection and the underlying asset.

(iii) the position is captured in paragraph 4.50 but there is an asset mismatch between the cash position and the credit derivative. However, the underlying asset is included in the (deliverable) obligations in the credit derivative documentation.

4.52 In cases outlined in paragraphs 4.49 to 4.51, rather than adding the specific risk capital requirements for each side of the transaction (that is the credit protection and the underlying asset) only the higher of the two capital requirements will apply.

4.53 In cases not captured in paragraphs 4.49 to 4.51, a specific risk capital charge will be applied against both sides of the positions.

4.54 With regard to banking institutions' first-to-default and second-to-default products in the trading book, the basic concepts developed for the banking book will also apply. Banking institutions holding long positions in these products (for example buyers of basket credit linked notes) would be treated as if they are protection sellers and would be required to apply the specific risk charges on each of the underlying position based on the external[12] rating of the respective underlying reference asset, if available. Issuers of these notes would be treated as if they are protection buyers and are therefore allowed to off-set specific risk for one of the underlyings, that is the asset with the lowest specific risk charge.

[11] Currency mismatches should be reported under Part D.2.3 Foreign Exchange Risk.

[12] As specified under the credit component of the Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk).

General Interest/Benchmark Rate Risk

4.55 The capital requirements for general risk are designed to capture the risk of loss arising from changes in market interest/profit rates. Within the standardised approach, Labuan bank may choose to adopt either the 'maturity' method or the 'duration' method. Upon adoption of a method, Labuan banks are not allowed to switch between methods without the consent of Labuan FSA. Under each method, positions are allocated across a maturity ladder template of time bands and the capital charge is then calculated as the sum of four components:

(i) the net short or long weighted position across the entire time bands[13];

(ii) the smaller proportion of the matched positions in each time band to capture basis risk (the 'vertical disallowance');

(iii) the larger proportion of the matched positions across different time bands to capture yield curve risk (the 'horizontal disallowance'); and

(iv) a net charge for positions in options, where appropriate (refer to Part D.2.6 Treatment of Options).

4.56 Separate maturity ladder templates should be used for positions that are exposed to different currency interest/benchmark rate risk. Capital charges for general risk should be calculated separately for each currency and then aggregated with no offsetting between positions of different currencies. Two different sets of risk weights (Table 3) and yield changes (Table 5) would be applicable depending on whether the interest/profit rate related financial instrument is exposed to a G10 or non-G10 currency. Zero-coupon bonds/sukūk and deep-discount bonds/sukūk (defined as bonds/sukūk with a coupon less than 3%) should be slotted according to the time bands set out in the third column of Table 3.

[13] Positions include delta-weighted option position in the case where the institution decides to use the Delta-plus Method for the treatment of options.

Offsetting of Matched Positions

4.57 In calculating general risk, Labuan banks may exclude all long and short positions (both actual and notional) in identical instruments with the same issuer, coupon/profit rate, currency and maturity, from the calculations. No offsetting will be allowed between positions in different currencies; the separate legs of cross-currency swaps or forward foreign exchange deals are treated as notional positions in the relevant instruments and included in the appropriate calculation for each currency interest/benchmark rate risk.

Maturity Method

4.58 Under the maturity method, the market value of long or short positions in debt securities/sukūk and other financial instruments that are exposed to risk of interest/profit rate, including derivative instruments, are slotted into the relevant time bands as specified in Table 3. Fixed-rate instruments shall be allocated according to the residual term to maturity and floating-rate instruments according to the residual term to the next repricing date.

4.59 The first step in the calculation of the capital charge is to weight the positions in each time band by a risk weight designed to reflect the price sensitivity of those positions to assumed changes in interest/benchmark rates. The risk weights for each time band are set out in the fourth and fifth column of Table 3 below according to either G10 or non-G10 countries' currencies. The net short or long position arising from the offsetting of the long and short position under each time band is then multiplied with the respective risk weight to arrive at the net short or long weighted position.

Table 3: General Interest/Benchmark Rate Risk Weights for Financial Instruments Exposed to G10 or Non-G10 Currency

Zone	Time Bands (Coupon/Profit rate 3% or more)	Time Bands (Coupon/Profit rate less than 3%)	G10 Risk weight (%)	Non-G10 Risk weight (%)
1	1 month or less	1 month or less	0.00	0.00
	> 1 month and up to 3 months	> 1 month and up to 3 months	0.20	0.20
	> 3 months and up to 6 months	> 3 months and up to 6 months	0.40	0.50
	> 6 months and up to 12 months	> 6 months and up to 12 months	0.70	0.80
2	> 1 year and up to 2 years	> 1.0 year and up to 1.9 years	1.25	1.30
	> 2 years and up to 3 years	> 1.9 years and up to 2.8 years	1.75	1.90
	> 3 years and up to 4 years	> 2.8 years and up to 3.6 years	2.25	2.70
3	> 4 years and up to 5 years	> 3.6 years and up to 4.3 years	2.75	3.20
	> 5 years and up to 7 years	> 4.3 years and up to 5.7 years	3.25	4.10
	> 7 years and up to 10 years	> 5.7 years and up to 7.3 years	3.75	4.60
	> 10 years and up to 15	> 7.3 years and up to 9.3 years	4.50	6.00
	> 15 years and up to 20	> 9.3 years and up to 10.6 years	5.25	7.00
	> 20 years	> 10.6 years and up to 12 years	6.00	8.00
		> 12 years and up to 20 years	8.00	10.40
		> 20 years	12.50	16.40

Vertical Disallowance

4.60 The next step in the calculation is to offset the weighted longs and short within each time band, resulting in a single short or long position for each band.

4.61 Since each band would include different instruments and different maturities, a 10% capital charge to reflect basis risk and gap risk will be levied on the smaller of the offsetting positions (that is the matched position), be it long or short, in each time band. Thus, if the sum of the weighted longs in a time band is USD100 million and the sum of the weighted shorts is USD90 million, the so-called 'vertical

disallowance' for that time band would be 10% of USD90 million (that is USD9 million).

Horizontal Disallowance

4.62 From the results of the above calculations, two sets of weighted positions, the net long or short position in each time band, would be produced. The maturity ladder is then divided into three zones defined as zero to one year, more than one year to four years and more than four years. Labuan banks will then conduct two further rounds of offsetting, first between the net time band positions within each zone and secondly between the net positions across the three different zones (that is, between adjacent zones and non-adjacent zones). The residual net position in each zone may be carried over and offset against opposite positions in other zones when calculating net positions between zones 2 and 3, and 1 and 3. The offsetting will be subjected to a scale of disallowances expressed as a fraction of the matched positions, as set out in Table 4.

Table 4: Horizontal Disallowances

Zones	Time Band	Within the Zone	Between Adjacent Zones	Between Zones 1 and 3
Zone 1	0 – 1 month > 1 – 3 months > 3 – 6 months > 6 – 12 months	40%	40%	100%
Zone 2	> 1 – 2 years > 2 – 3 years > 3 – 4 years	30%	40%	
Zone 3	> 4 – 5 years > 5 – 7 years > 7 – 10 years > 10 – 15 years > 15 – 20 years > 20 years	30%		

4.63 The general risk capital requirement will be the sum of:

Net Position	Net Short or Long Weighted Positions	x 100%
Vertical Disallowances	Matched Weighted Positions[14] in all Maturity Bands	x 10%
Horizontal Disallowances	Matched Weighted Positions within Zone 1	x 40%
	Matched Weighted Positions within Zone 2	x 30%
	Matched Weighted Positions within Zone 3	x 30%
	Matched Weighted Positions Between Zones 1 & 2	x 40%
	Matched Weighted Positions Between Zones 2 & 3	x 40%
	Matched Weighted Positions Between Zones 1 & 3	x 100%

[14] The smaller of the absolute value of the short and long positions within each time band.

An example of the calculation of general benchmark rate risk using maturity method is set out in **Example 1.**

Duration Method

4.64 Labuan banks may adopt the duration method if they have the necessary capability to measure their general risk by calculating the price sensitivity of each position separately. This method should be consistently used upon adoption. The mechanics of this method are as follows:

(i) calculate the price sensitivity of each instrument in terms of a change in interest/profit rates of between 0.8 and 1.5 percentage points for instruments denominated in non-G10 countries' currencies and between 0.6 and 1.0 percentage point for instruments denominated in G10 countries' currencies (refer to Table 5) depending on the maturity of the instrument;

(ii) slot the resulting sensitivity measures into a duration-based ladder in the thirteen time bands set out in the second column of Table 5 and obtain the net position;

(iii) subject long and short positions in each time band to a 5% vertical disallowance to capture basis risk in the same manner as per paragraph 4.61; and

(iv) carry forward the net positions in each time band for horizontal offsetting subject to the disallowances set out in Table 4 in the same manner as per paragraph 4.62.

The market risk capital charge will be the aggregation of the three charges described in paragraph 4.63.

Table 5: Changes in Yield for Financial Instruments Exposed to G10 and Non-G10 Currency Interest/Benchmark Rate Risk

Zone	Time Bands (Coupon/Profit rate 3% or more)	Time Bands (Coupon/Profit rate less 3%)	G10 Changes in Yield (%)	Non-G10 Changes in Yield (%)
1	1 month or less	1 month or less	1.00	1.50
	> 1 - 3 months	> 1 - 3 months	1.00	1.50
	> 3 - 6 months	> 3 - 6 months	1.00	1.40
	> 6 - 12 months	> 6 - 12 months	1.00	1.20
2	> 1- 2 years	> 1.0 - 1.9 years	0.90	1.00
	> 2 - 3 years	> 1.9 - 2.8 years	0.80	0.90
	> 3 - 4 years	> 2.8 - 3.6 years	0.75	0.90
3	> 4 - 5 years	> 3.6 - 4.3 years	0.75	0.90
	> 5 - 7 years	> 4.3 - 5.7 years	0.70	0.90
	> 7 - 10 years	> 5.7 - 7.3 years	0.65	0.80
	> 10 - 15 years	> 7.3 - 9.3 years	0.60	0.80
	> 15 - 20 years	> 9.3 - 10.6 years	0.60	0.80
	> 20 years	>10.6 - 12 years	0.60	0.80
		> 12 - 20 years	0.60	0.80
		> 20 years	0.60	0.80

Treatment of Interest/Profit Rate Derivatives, Repo/Sell and Buy Back Agreement (SBBA) and Reverse Repo/SBBA Transactions

4.65 The market risk measurement system should include all interest/profit rate derivatives, off-balance sheet instruments, repos/SBBAs and reverse repos/SBBAs in the trading book which would react to changes in interest/profit rates (for example forward rate agreements (FRAs), other forward contracts, interest/profit rate and cross-currency swaps and forward foreign exchange

positions). Options can be treated in a variety of ways as described in Part D.2.6 Treatment of Options.

4.66 Derivatives should be converted into positions in the relevant underlying and subject to general risk charges. To determine the capital charge under any of the two standardised methods described above, the amounts reported should be the market value of the principal amount of the underlying or of the notional underlying. Treatment of the interest/benchmark rate derivative positions by product class is described in Box 1**.** A summary on the treatment for interest/profit rate derivatives is set out in Table 6.

Table 6: Summary of Treatment of Interest/Benchmark Rate Derivatives, Repo/SBBA and Reverse Repos/SBBAs under the Standardised Market Risk Approach

Instrument	Specific Risk*	General Risk
Exchange-Traded Futures/OTC Forwards		
- Malaysian Government debt security	No	Yes, as two positions⁺
- Foreign sovereigns debt security	Yes^	Yes, as two positions⁺
- Corporate debt security	Yes	Yes, as two positions⁺
- Index on interest/benchmark rates	No	Yes, as two positions⁺
FRAs, Swaps	No	Yes, as two positions⁺
Forward Foreign Exchange	No	Yes, as two position in each currency⁺
Options		Either
- Malaysian Government debt security	No	(a) Simplified Approach:
- Foreign sovereigns debt security	Yes^	Carve out together with the associated hedging positions for general risk only and reflect under Part D.2.6;
- Corporate debt security	Yes	
- Index on interest/benchmark rates	No	
- FRAs, Swaps	No	Or

Instrument	Specific Risk*	General Risk
		(b) Delta-Plus Method: Include the delta weighted option position into the respective time bands according to its underlying. (Gamma and Vega risk should each receive a separate capital charge and calculated under Part D.2.6); Or (c) Scenario Approach: Carve out together with the associated hedging positions for general risk only and reflect under Part D.2.6
Repo/SBBA	No	Yes, as 1 position+
Reverse Repo/SBBA	No	Yes, as 1 position+

* This refers to the specific risk charge relating to the issuer of the financial instrument. There remains a separate risk charge for counterparty credit risk which is set forth in the credit risk component of the Guidelines.

^ The specific risk capital charge only applies to foreign sovereign debt securities that are rated below AA-

\+ Refer to Box 1 for more details on method of recording the position.

4.67 Interest/profit rate swaps, cross-currency swaps, FRAs and forward foreign exchange contracts will not be subject to a specific risk charge. They are, however, subject to the counterparty credit risk which is set forth in the credit risk component of the Guidelines. A specific risk charge will apply in the case where the underlying of a contract is represented by a specific security/*sukūk*, or an index representing a basket of debt securities/*sukūks*.

4.68 General risk applies to all positions in derivative products in the same manner as cash positions, with the exception of fully matched positions in identical

instruments. The various categories of instruments should be slotted into the maturity ladder and treated according to the rules identified earlier.

4.69 A summary of the treatment for credit derivatives in the trading book is set out in Appendix VIII.

BOX 1

Forward Contracts

In the case of foreign currency forward contracts, either a long or a short position in the market value of each underlying currency leg shall be recorded in the respective maturity ladder templates capturing the relevant currency interest/profit rate risk.

Swaps

Swaps will be treated as two underlying positions in government securities with relevant maturities. For example, an interest/profit rate swap under which Labuan bank is receiving variable interest/profit rate and paying fixed interest/profit rate will be treated as a long position in a variable interest/profit rate instrument of maturity equivalent to the period until the next interest/profit fixing date and a short position in a fixed-rate instrument of maturity equivalent to the residual life of the swap.

For swaps that pay or receive a fixed or variable interest/profit rate against some other reference price, for example an equity index, the interest/profit rate component should be slotted into the appropriate repricing maturity category, with the equity component being included in the equity framework. The separate legs of cross-currency swaps are to be reported at market value in the relevant maturity ladders for the currencies concerned.

Repo/SBBA Transactions[15]

The risk exposure under repo/SBBA transactions arises from pledging/selling of securities and receiving cash with a promise to repurchase securities or repayment of cash at the agreed future date. The classification of repo/SBBA transactions should be determined based on the trading book definition; hence it can be classified either as a trading book repo/SBBA (for example repo/SBBA to fund trading book positions) or banking book repo/SBBA (for example repo/SBBA to fund banking book positions).

Trading Book Repo/SBBA

General Risk

- Arising from short cash position.
- Recording: short the value of the repo/SBBA (cash leg) based on the remaining maturity of the repo/SBBA.

Counterparty Credit Risk

- The net exposure arising from the swapping of securities and cash with the repo counterparty at maturity of the repo.
- Recording: Treated as credit risk under the credit risk component of this Guidelines.

Risk of the Underlying Securities

- Irrespective of whether the underlying security is from the banking or trading book, its respective credit risk or market risk shall remain.

Banking Book Repo/SBBA

Counterparty Credit Risk

- The net exposure arising from the lending/selling of securities in exchange for

[15] Capital treatment for SBBA and reverse SBBA transaction is summarised in **Appendix IV**.

cash.

- Recording: Treated as a banking book counterparty credit risk charge under the credit risk component of this Guidelines for repo/SBBA transactions.

Risk of the Underlying Securities

- Irrespective of whether the underlying security is from the banking or trading book, its respective credit risk or market risk shall remain.

Reverse Repo/SBBA Transactions

The risk exposure under reverse repo/SBBA transactions arises from borrowing/buying of securities in exchange for cash with a promise to resell securities or receive cash at the agreed future date. The classification of reverse repo/SBBA transactions should be based on the trading book definition; hence it can be classified either as a trading or banking book position.

Trading Book Reverse Repo/SBBA

General Risk

- Arising from long cash position.
- Recording: long the value of the reverse repo/SBBA based on the remaining maturity of the reverse repo/SBBA.

Counterparty Credit Risk

- The net exposure arising from the borrowing/purchase of securities in exchange for cash with the reverse repo/SBBA counterparty at maturity of the reverse repo/SBBA.
- Recording: Treated as credit risk under the credit risk component of the Guidelines.

Banking Book Reverse Repo/SBBA

Counterparty Credit Risk

- The net exposure arising from the lending/exchange of cash collateralised by securities.
- Recording: Treated as a banking book counterparty credit risk charge under the credit risk component of this Guidelines for reverse repo/SBBA style transactions.

Options

Three methods (Simplified Approach, Scenario Approach and Delta-Plus Method) are available under Part D.2.6 Treatment of Options. Interest/profit rate option positions and the underlying transactions will be carved out and capital provided separately for general risk if Labuan banks choose to use the simplified and scenario approach. However, if the delta-plus method is selected, the delta-weighted option position will be slotted into the respective time bands according to its underlying together with the other interest/profit rate related instruments. Nevertheless, under the delta-plus method, the Gamma and Vega risks will be separately calculated as described in Part D.2.6 Treatment of Options.

Example 1: Calculation of General Risk (Maturity Method) for Interest/Benchmark Rate Related Financial Instruments

1. Assume that Labuan bank has the following positions in its trading book:

   (i) a Malaysian fixed rate private debt securities (PDS), USD13.33 million market value, residual maturity 8 years;

   (ii) a Malaysian government securities (MGS), USD75 million market value,

residual maturity 2 months;

(iii) an interest/profit rate swap, USD150 million[16], the Labuan bank receives floating interest/profit rate and pays fixed, the next interest/profit fixing occurs after 9 months, residual life of the swap 8 years;

(iv) a MGS/GII of USD60 million market value with residual maturity of 3.5 years, sold under SBBA for six months; and

(v) a Malaysian fixed rate trading book corporate bond/*Sukuk*, USD50 million market value, residual maturity of 5 years, sold under repo/SBBA for 3 months.

2. Table A shows how these positions are slotted into the time bands and are weighted according to the weights given in column 5 of Table 3 (Risk weight for Non-G10 countries currency) of Part D.2.1 Interest/Benchmark Rate Risk. After weighting the positions, the calculation should proceed as follows:

(i) The overall net position is -2.12 million (0.05-0.30+1.20+1.62+1.60-6.29 million) leading to capital charge of USD2.12 million.

(ii) The vertical disallowance in time bands 1-3 months and 7-10 years has to be calculated and the matched position in these time-bands (the lesser of the absolute values of the added weighted long and added weighted short positions in the same time-band) are 0.10 and 0.61 million respectively resulting in a capital charge of 10% of 0.71 million = USD0.07 million.

(iii) The horizontal disallowances within the zones have to be calculated. As there are more than one position in zones 1 and 3, a horizontal disallowance need only be calculated in these zones. In doing this, the matched position is calculated as the lesser of the absolute values of the added long and short positions in the same zone and is 0.30 and 1.60 million in zones 1 and 3

[16] The position should be reported as the market value of the notional underlying. Depending on the current interest/profit rate, the market value of each leg of the swap (that is the 8 year bond/*Sukuk* and the 9 month floater) can be either higher or lower than the notional amount. For simplicity, the example assumes that the current interest/profit rate is identical with the one the swap is based on, hence, the market value for both legs are identical.

respectively. The capital charge for the horizontal disallowance within zone 1 is 40% of 0.30 million = USD0.12 million and 30% of 1.60 million = USD0.48 million in zone 3. The remaining net weighted positions in zones 1 and 3 are +0.95 and -4.69 million respectively.

(iv) The horizontal disallowances between adjacent zones have to be calculated. After calculating the net position within each zones the following positions remain: zone 1: +0.95 million; zone 2: +1.62 million and zone 3: -4.69 million. The matched position between zones 2 and 3 is 1.62 million (the lesser of the absolute values of the long and short positions between adjacent zones). The capital charge in this case is 40% of 1.62 million = USD0.65 million.

(v) The horizontal disallowance between zones 1 and 3 has to be calculated. The matched position between zones 1 and 3 is 0.95 million (the lesser of the absolute values of the long and short positions between zones 1 and 3). The horizontal disallowance between the two zones is 100% of the lower of the matched position which leads to a capital charge of 100% of 0.95 million = USD0.95 million.

3. The total capital charge (USD million) in this example is:

- overall net open position	2.12
- vertical disallowance	0.07
- horizontal disallowance in zone 1	0.12
- horizontal disallowance in zone 3	0.48
- horizontal disallowance between adjacent zones	0.65
- horizontal disallowance between zones 1 and 3	0.95
Total	**4.39**

Table A: Maturity Method of Calculating General Risk of Interest/Profit Rate Related Financial Instruments (USD'million)

Time Bands	Zone 1				Zone 2			Zone 3							Total Charge
	Months				Years										
(Coupon 3% or more)	up to 1	> 1 - 3	> 3 - 6	> 6 - 12	> 1 - 2	> 2 - 3	> 3 - 4	> 4 - 5	> 5 - 7	> 7 - 10	> 10 - 15	> 15 - 20	over 20		
(Coupon less than 3%)					> 1 - 1.9	> 1.9 - 2.8	> 2.8 - 3.6	> 3.6 - 4.3	> 4.3 - 5.7	> 5.7 - 7.3	> 7.3 - 9.3	> 9.3 - 10.6	> 10.6 - 12	> 12 - 20	over 20	
Long Position		75 Govt Bond (ii)		150 Swap (iii)			60 Futures (iv)	50 PDS* (v)		13.33 PDS (i)					
Short Position		50 Repo (Cash) (v)	60 Futures (iv)							150 Swap (iii)					
Assigned Weights (%)	0.00	0.20	0.50	0.80	1.30	1.90	2.70	3.20	4.10	4.60	6.00	7.00	8.00	10.40	16.40	
Overall Net Open Position		+0.05	-0.30	+1.20			+1.62	+1.60		-6.29						**2.12**
Vertical Disallow.		0.10 x 10% = 0.01								0.61 x 10% = 0.06						**0.07**
Horizontal Disallow. 1	0.30 x 40% = 0.12							1.60 x 30% = 0.48								**0.60**
Horizontal Disallow. 2					1.62 x 40% = 0.65											**0.65**
Horizontal Disallow. 3	0.95 x 100% = 0.95															**0.95**
Total General Risk Charge																**4.39**

* General market risk for the underlying PDS remains in the trading book.

D.2.2 EQUITY POSITION RISK

4.70 This part sets out the minimum capital standard to cover the risk of equity[17] positions in the trading book. It applies to long and short positions in all instruments that exhibit market behavior similar to equities. The instruments covered include ordinary shares, whether voting or non-voting, convertible securities that behave like equities, and commitments to buy or sell equity securities. Non-convertible preference shares are to be excluded from these calculations as they are covered under the interest/profit rate risk requirements described in Part D.2.1 Interest/Profit Rate Risks. Equity derivatives and off-balance sheet positions such as futures, swaps and options on individual equity or stock indices are also included. Underwriting of equities[18] should be included and regarded as an option instrument.

Specific and General Risk

4.71 The minimum capital standard for equities is expressed in terms of two separately calculated charges for the specific risk of holding a long or short position in an individual equity and for the general risk of holding a long or short position in the market as a whole. The long or short position in the market must be calculated on a market-by-market basis. Hence, a separate calculation has to be carried out for each national market in which the Labuan bank holds equities.

Specific Risk

4.72 Specific risk is defined as a proportion of the Labuan bank's sum of the absolute value of all net positions in each individual equity[19] regardless of whether it is net long or net short. Matching opposite position for the same equity issuer may be

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[17] Includes private commercial enterprise's equity trading activities where the Islamic banking operation has *mushārakah* and/or *muḍārabah* financing.

[18] The underwriter is obliged to purchase equities at the issue price for unsubscribed equities which in effect is equivalent to writing a put option and the issuer as the holder of the put option has the right but not the obligation to sell the equities to the underwriter at the issue price.

[19] Net position in each individual equity refers to the net of short and long exposure to an individual company.

netted-off. The charge for specific risk is listed in Table 7[20]. Labuan FSA however, reserves the right to assign different risk weights to specific exposure in order to better reflect the risk characteristics of the exposure.

General Risk

4.73 General risk will be assessed on the difference between the sum of the longs and the sum of the shorts of all equity positions (that is the overall net position) in an equity market. The general risk charge is as provided in Table 7.

Table 7: Specific Risk and General Risk Charges for Equities and Equity Derivatives

Instrument	Specific risk	General risk
Equity and/or Equity Derivative (except Options) Positions with the following as Underlying:		
• KLCI equities	8%	8%
• Equities of G10 countries market indices	4%	8%
• Non-index equities of G10 stock exchanges	8%	8%
• All other equities	14%	8%
• Trust funds and Exchange Traded Funds	8%	8%
• KLCI and all market indices	2%	8%
• G10 countries market indices	2%	8%
• Other market indices	2%	8%
• Arbitrage** (Execution Risk)	2%	
Underwriting of Equity Underlying Position Approach: General and specific risk for underwriting IPO and rights issue is calculated by carving out the positions and reporting them based on the underlying position approach under Part D.2.6 Treatment of Options		

[20] If the Delta-plus method or the Scenario approach is selected to estimate the general risk of equity options, the specific risk of these positions will be calculated within this part as the multiplication of the delta weighted option underlying position and the risk weight for specific risk as provided in Table 7. However, if the Underlying Position approach is adopted, both specific risk and general risk of the equity option will be carved out and provided under Part D.2.6 Treatment of Option**s** of paragraphs 4.116 and 4.117.

Instrument	Specific risk	General risk
Equity Options 1. Simplified Approach: This approach applies to limited range of purchase options only. Equity options and associated underlying cash positions are 'carved-out' and subject to separately calculated capital charges that incorporate both general market risk and specific risk under Part D.2.6 Treatment of Options; or 2. Delta-Plus Method: i. For both specific risk and general risk charge, the delta weighted option position is multiplied with the relevant specific risk and general risk charge as provided above. ii. Gamma and Vega risk should each receive a separate capital charge calculated as per Part D.2.6 Treatment of Options; or 3. Scenario Approach: i. Specific risk is calculated by multiplying the delta weighted position of the option's underlying by the specific risk charge as provided above. ii. General risk is calculated by carving out the options position together with its associated hedging positions and reflected under Part D.2.6 Treatment of Options.		

Treatment of Equity Derivatives

4.74 Equity derivatives and off-balance sheet positions which are affected by changes in equity and equity index prices should be included in the measurement system[21]. The equity derivatives are to be converted into positions in the relevant underlying and subjected to the following requirements:

(i) futures and forward contracts relating to individual equities are reported at current market prices;

(ii) futures relating to equity indices are reported either as the current index value times the monetary value of one index point set by the futures exchange or market value of the notional underlying equity portfolio;

[21] Where equities are part of a forward contract, a future or an option (quantity of equities to be received or to be delivered), any interest/profit rate or foreign currency exposure from the other leg of the contract should be reported as set out in Part D.2.1 Interest/Profit Rate Risk and Part D.2.3 Foreign Exchange Risk.

(iii) equity swaps are treated as two notional positions[22];

(iv) underwriting of equity IPO position is carved out where capital charge for both specific risk and general risk are provided as described in Part D.2.6 Treatment of Options - Underlying Position Approach; and

(v) equity options and stock index options are treated under one of the four proposed methods in Part D.2.6 Treatment of Options that is simplified approach, scenario approach, delta-plus approach or internal models.

The treatment for equity derivatives is summarised in Table 7.

Offsetting of Matched Equity Derivative Positions

4.75 Matching equity derivative positions with identical equity underlying position and matching positions in equity derivative contracts of identical underlying in each market may be fully offset, resulting in a single net short or long position to which the specific and general risk charges will apply. For example, a future in a given equity may be offset against an opposite physical position in the same equity[23]203. Similarly, a long and short position of identical equity futures for a particular contract month can be netted off.

Arbitrage

4.76 In the case of the futures-related arbitrage strategies described below, the additional 2% capital charge to reflect divergence and execution risks as described in Table 7 may be applied to only one index with the opposite position exempt from a capital charge. To qualify, banking institutions must clearly identify

[22] For example, an equity swap in which a banking institution is receiving an amount based on the change in value of one particular equity or stock index and paying a different index will be treated as a long position in the former and a short position in the latter. Where one of the legs involves receiving/paying a fixed or floating interest/profit rate, that exposure should be slotted into the appropriate repricing time band for interest/profit rate related instruments as set out in Part D.2.1 Interest/Profit Rate Risk. The stock index should be covered by the equity treatment.

[23] The interest/profit rate risk arising out of futures contract, however, should be reported as set out in Part D.2.1 Interest/Profit Rate Risk.

that the trade has been deliberately entered into and separately controlled. The strategies may be in the form of:

(i) banking institution taking an opposite position in exactly the same index at different dates or in different market centres; and/or

(ii) banking institution having an opposite position in contracts at the same date in different but similar indices, subject to supervisory oversight that the two indices contain sufficient common components to justify offsetting.

4.77 Where a banking institution engages in a deliberate arbitrage strategy, in which a futures contract on a broadly-based index matches a basket of stocks, it will be allowed to carve out both positions from the standardised methodology on condition that:

(i) the trade has been deliberately entered into and separately controlled;

(ii) the weighted composition of the basket of stocks represents at least 90% of the index when broken down into its notional components.

However, in such cases, capital charge of 2% is applied on matching gross value of each side of the two positions. This applies even if all of the stocks comprising the index are held in identical proportions. Any excess value of the stocks comprising the basket over the value of the futures contract or excess value of the futures contract over the value of the basket is treated as an open long or short position. An example of how the equity arbitrage works is set out in Example 2.

4.78 If a banking institution takes a position in depository receipts against an opposite position in the underlying equity or identical equities in different markets, it may offset the position (that is bear no capital charge) but only on condition that any costs on conversion are fully taken into account.[24]

[24] Any foreign exchange risk arising out of these positions has to be reported as set out in Part D.2.3 Foreign Exchange Risk.

Example 2: Calculation of Equity Risk for Equity Arbitrage Strategies

Assume that a banking institution has the following equity arbitrage positions in its trading book:

1. Long five March 2008 Nikkei 225 Index Futures contracts at 16,000 traded at SGX (Singapore Exchange) and short five March 2008 Nikkei 225 Index Futures contracts at 16,500 traded at OSE (Osaka Securities Exchange). The positions are deliberately entered into and managed separately.

Capital charge	=	Risk Charge for Arbitrage Strategies x Number of Contracts x ¥500 (per index point) x Index of March 08 Nikkei 225 contract
	=	2.0% x 5 x ¥500 x 16,500
	=	¥825,000
	=	USD7,260 (RM/¥: USD0.88 per ¥100)

Note: The foreign exchange rate risk is dealt with in accordance with the part on Foreign Exchange Rate Risk

2. Long five June 07 Kuala Lumpur Composite Index Futures (FKLI) contracts with index at 1000, and short five September 07 FKLI contracts. The positions are deliberately entered into and managed separately.

Capital charge	=	Risk Charge for Arbitrage Strategies x Number of Contracts x USD50 (per index point) x Index of June 07contract
	=	2.0% x 5 x USD50 x 1000
	=	USD5,000

3. Long a basket of KLCI equity worth USD1.1 million with weighted composition of 90% of the index broken down into notional components; and short ten June 07 FKLI contracts worth USD1.0 million. The transactions are deliberate entered into and separately controlled.

Under this arbitrage strategy, there is an excess value (unmatched position) of USD100,000 over the value of the contracts. The excess value would be subjected to capital charge for both general and specific risks.

Capital charge	=	[(2% of the gross value of basket of stocks and futures contract] + [Unmatched Position x (Specific + General Risk Charge)]
	=	[(2.0% x USD2.1million)] + [(USD100,000) x (8%+8%)]
	=	USD42,000 + USD16,000
	=	USD58,000

D.2.3 FOREIGN EXCHANGE RISK (INCLUDING GOLD AND SILVER POSITIONS)

4.79 This part sets out the minimum capital standard to cover the risk of holding or taking positions in foreign currencies[25] including gold and silver. Taking on foreign exchange positions may also expose Labuan bank to interest/benchmark rate risk (for example, in forward foreign exchange contracts). In this regard, the relevant interest/benchmark rate positions should be included in the calculation of interest/benchmark rate risk described in Part D.2.1 Interest/Benchmark Rate Risks**.**

4.80 Under the standardised approach, two steps are needed to calculate the capital requirement for foreign exchange risk. The first is to measure the exposure in a single currency position (that is the net open position of a single currency). The second is to measure the risks inherent in a Labuan bank's mix of net long and short positions in different currencies (that is the total net long and total net short position in foreign currencies).

[25] Includes private commercial enterprise's FX trading activities where the Islamic banking operation has *mushārakah* and/or *muḍārabah* asset exposure.

4.81 The capital charge will be 8% of the higher of the total net long or total net short foreign currency position. The respective net position in gold and silver is treated on a standalone basis and applied a capital charge of 8%.

4.82 An additional capital charge of 3% will be applied on the total gross long and short position to account for execution risk, in the event that gold and/or silver are physically traded.

The Treatment of Structural Positions

4.83 While matched foreign currency asset and liability positions will protect Labuan bank against loss from movements in exchange rates, this will not necessarily protect its capital adequacy ratios. This is due to higher RWA for its foreign assets arising from appreciation of foreign exchange rate. By maintaining a structural net long position in the foreign currency, the gain arising from revaluation of the net long position will buffer the increase in RWA resulting from the rise in the value of foreign currency assets.

4.84 Any structural foreign currency positions which was deliberately undertaken by Labuan bank to hedge partially or totally the adverse effect of the exchange rate on its capital adequacy ratios may be excluded from the calculation of net open currency positions, provided that the following conditions are satisfied:

(i) the 'structural positions' must be of non-dealing nature;

(ii) the 'structural positions' do no more than protect the Islamic banking institution's capital adequacy ratio; and

(iii) the exclusion of the positions are approved by ALCO/Risk Committee, or other approving authority delegated by the board, and must be applied consistently throughout the life of the assets.

Measuring the Exposure in a Single Currency

4.85 Labuan bank's net open position in each currency (excluding gold and silver) should be calculated by aggregating the following positions:

(i) net on-balance sheet position[26] (that is all foreign currency asset items less all foreign currency liability items, for example currency and notes, trade bills, government and private debt papers, loans/financing and deposits, foreign currency accounts and accrued interest/income, denominated in the foreign currency in question)[27];

(ii) net forward position (that is present value of all amounts to be received less present value of all amounts to be paid under unsettled spot transactions, forward foreign exchange transactions, including currency futures, the principal on currency swaps position and interest/profit rate transactions such as futures, swaps etc. denominated in a foreign currency)[28];

(iii) guarantees and contingencies (exclude underwriting of equity IPOs which are captured as options and treated under Part D.2.6 Treatment of Options) that are certain to be called and are likely to be irrecoverable;

(iv) any other item representing a profit or loss in foreign currencies; and

(v) the net delta-based equivalent of the total book of foreign currency options[29].

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[26] Structural positions which fulfil conditions set out in Part D.2.3 Foreign Exchange Risk would be excluded from the computation.

[27] Profit and other income accrued (that is earned but not yet received) should be included as a position. Accrued expenses should also be included.

[28] Forward currency positions could be valued in the following ways:
(a) Present values of each forward foreign currency position using the interest/profit rate of the foreign currency and translated at current spot exchange rate; or
(b) Use forward exchange rates to translate the forward foreign currency leg; or
(c) Multiply the foreign currency forward leg by current spot exchange rate without present valuing. Treatments (a) and (b) are preferred. Nevertheless, treatment (c) which is a simplified but relatively inaccurate method may be used by banking institutions with small foreign exchange positions and do not possess the systems to conduct present value calculations.

[29] Applicable to institutions which uses the Delta-plus method of treating options position. Subject to separately calculated capital charges for Gamma and Vega as described in Part D.2.6 Treatment Of Options; alternatively, options and their associated underlying may be subject to one of the other methods described in Part D.2.6 Treatment of Options.

4.86 Currency pairs subject to a binding inter-governmental agreement linking the two currencies may be treated as one currency[30].

4.87 Positions in gold and silver are measured in terms of the standard unit of measurement which is then converted at reporting date spot exchange rate into USD[31] based on spot exchange rate at reporting date.

The Treatment of Profit, Other Income and Expenses in Foreign Currency

4.88 Accrued interest/profit and accrued expenses should be included as a position. Unearned but expected future profit and anticipated expenses may be excluded unless the amounts are certain and Labuan banks have taken the opportunity to hedge them. Any inclusion of future income/expenses should be treated consistently, and should not be restricted to select only those expected future flows that would reduce their position.

Measuring the Foreign Exchange Risk in a Portfolio of Foreign Currency Positions

4.89 The net position of the combined trading and banking book in each foreign currency is converted at spot rates (as at date of reporting) into the reporting currency. The overall net open position is measured by aggregating:

(i) the sum of the net short positions or the sum of the net long positions, whichever is the greater; with

(ii) the net position (short or long) in gold and silver, regardless of whether it is positive or negative.

4.90 The capital charge will be 8% of the overall net open position (refer to the example below).

[30] For example, inter-governmental agreements apply to Singapore and Brunei dollars.

[31] Where gold/silver is part of a forward contract (the quantity of gold/silver to be received or to be delivered), any interest/profit rate or foreign currency exposure from the other leg of the contract should be reported as set out in Part D.2.1 Interest/Profit Rate Risks.

Example of the Standard Measure of Foreign Exchange Risk

	JPY	HKD	GBP	SGD	USD	GOLD
Step 1	+50	+100	+150	-20	-180	-35
Step 2	+300			-200		-35

The capital charge for foreign exchange risk would be 8 per cent of the higher of either the net long currency positions or the net short currency positions (300) and of the net position in gold (35) = 335 x 8% = 26.8.

D.2.4 COMMODITIES RISK

4.91 This part establishes a minimum capital standard to cover the price risk of taking exposure in commodities[32], including precious metals, but excluding gold and silver (which are treated as a foreign currency according to the methodology set out in Part D.2.3 Foreign Exchange Risk**.** A commodity is defined as a physical product which is or traded on a secondary market, for example agricultural products, minerals (including oil) and precious metals.

4.92 The price risk in commodities is often more complex and volatile than that associated with currencies and interest/profit rates. Commodity markets may also be less liquid than those of interest/profit rates and currencies. Hence, changes in supply and demand may have a significant effect on price and volatility.[33] These market characteristics signify the challenges to enable price transparency and to effectively hedge the commodities risk.

4.93 Labuan banks involved in commodity derivatives are exposed to the following risks:

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[32] All commodity derivatives and off-balance-sheet positions which are affected by changes in commodity prices should be included. This includes commodity risk arising from *Salam* contracts and private commercial enterprise's commodity trading activities where the Islamic banking operation has *mushārakah* and/or *muḍārabah* exposure.

[33] Labuan banks need also to guard against the risk that arises when the short position falls due before the long position. Owing to a shortage of liquidity in some markets it might be difficult to close the short position and the banking institution might be squeezed by the market.

(i) directional risk (the risk arising from a change in the spot price);

(ii) basis risk (the risk that the relationship between the prices of similar commodities alters through time);

(iii) interest/profit rate risk (the risk of a change in the cost of carry for forward positions and options); and

(iv) forward gap risk (the risk that the forward price may change for reasons other than a change in interest/profit rates).

4.94 In addition Labuan banks are exposed to counterparty credit risk on over-the-counter derivatives, but this is captured by the credit risk component of this Guidelines. The funding of commodities positions may well expose a Labuan bank to interest/profit rate or foreign exchange risk and the relevant positions should be included in the measurement of interest/profit rate and foreign exchange risk as stipulated under Part D.2.1 Interest/Profit Rate Risk and D.2.3 Foreign Exchange Risk.[34]

4.95 Under the standardised approach, commodities risk is measured using either Simplified Approach or Maturity Ladder Approach. Both the Simplified Approach and the Maturity Ladder Approach are appropriate only for Labuan banks which, in relative terms, conduct only a limited amount of commodities business.

4.96 Under the Simplified Approach and the Maturity Ladder Approach, long and short positions in each commodity may be reported on a net basis where the long and short positions in identical underlying commodity may be excluded for the purpose of calculating the open positions. However, positions in different types of

[34] Where a commodity is part of a forward contract (quantity of commodities to be received or to be delivered), any interest/profit rate or foreign currency exposure from the other leg of the contract should be reported as set out in Part D.2.1 Interest/Profit Rate Risk and Part D.2.3 Foreign Exchange Risk (Including Gold and Silver Positions). Positions which are purely stock financing (that is a physical stock has been sold forward and the cost of funding has been locked in until the date of the forward sale) may be omitted from the commodities risk calculation although they will be subject to interest/profit rate and counterparty risk requirements.

commodities shall not be offset against each other with the exception if that commodities:

(i) similar[35] in nature; and

(ii) have exhibit minimum correlation of 0.9 between price movements over a minimum period of one year.

Simplified Approach

4.97 For the purpose of calculating the capital charges for directional risk, Labuan banks are required to measure each commodity position (spot plus forward) in terms of the standard unit of measurement (barrels, kilos, grams etc.). The net position in each commodity will then be converted at the current spot rates into USD. The capital charge of 15% is imposed on net commodity position that is long or short in each commodity.

4.98 The Labuan bank will also be subject to additional capital charge of 3% of the gross commodity positions, long plus short in each commodity, to cover the exposures against basis risk, interest/profit rate risk and forward gap risk for each type of commodity. The current spot price should be used for the purpose of valuing the gross positions in commodity derivatives.

Maturity Ladder Approach

4.99 Labuan banks are required to measure each commodity position (spot plus forward) in terms of the standard unit of measurement (barrels, kilos, grams etc.) for the purpose of calculating the capital charges for directional risk under this approach. The net position in each commodity will then be converted at the current spot rates into USD.

4.100 Subsequently for the purpose of capturing the forward gap and interest/profit rate risk within a time-band, (which together, are sometimes referred to as curvature/ spread risk) the matched long and short positions in each time-band will carry a

[35] For example, CBOT Mini-sized *Gold* vs. 100oz *Gold*; but not Mini-sized *Silver* vs. Mini-sized *Gold.*

capital charge. The methodology will be similar to that used for interest/profit rate related instruments as set out in Part D.2.1 Interest/Profit Rate Risk.

4.101 The calculation of the capital charge under the maturity ladder approach is undertaken based on the following sequence:

(i) Firstly, the position in the separate commodities shall be measured based on the standard unit of measurement and will be entered into a maturity ladder while physical transactions should be allocated to the first time-band. A separate maturity ladder will be used for each type of commodity as defined in paragraph 4.96.[36] For each time-band, the sum of short and long total positions which are matched will be multiplied by the appropriate spread rate (as set out in Table 8);

Table 8: Time-Bands and Spread Rates

Time-Band	Spread Rate
0-1 month	1.5%
> 1-3 months	1.5%
> 3-6 months	1.5%
> 6-12 months	1.5%
> 1-2 years	1.5%
> 2-3 years	1.5%
> 3 years	1.5%

(ii) The residual net positions from nearer time-bands may then be carried forward to offset exposures in time-bands that are further out. However, recognising that such hedging of positions among different time-bands is imperfect, a surcharge equal to 0.6% of the net position carried forward will be added in respect of each time-band that the net position is carried

[36] For markets which have daily delivery dates, any contracts maturing within ten days of one another may be offset.

forward. The capital charge for each matched amount created by carrying forward net positions is calculated in accordance with sub paragraph 4.101; and

(iii) Finally, Labuan bank will have either a residual long or short position only, to which a capital charge of 15% will apply.

4.102 All commodity derivatives and off-balance-sheet positions which are affected by changes in commodity prices fall under this measurement framework. This includes commodity futures, commodity swaps, and options where the 'delta plus' method[37] is used (see Part D.2.6 Treatment of Options). To calculate the risk, commodity derivatives should be converted into notional commodities positions and assigned to maturities as follows:

(i) futures and forward contracts relating to individual commodities should be incorporated in the measurement system as notional amounts of barrels, kilos etc. and should be assigned a maturity with reference to expiry date;

(ii) commodity swaps where one leg is a fixed price and the other the current market price should be incorporated as a series of positions equal to the notional amount of the contract, with one position corresponding with each payment on the swap and slotted into the maturity ladder accordingly. The positions would be long positions if the Labuan bank is paying fixed and receiving floating, and short positions if the Labuan bank is receiving fixed and paying floating;[38] and

(iii) commodity swaps where the legs are in different commodities are incorporated in the relevant maturity ladder.

4.103 An example on the application of maturity ladder approach for commodity risk is provided in Example 3.

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[37] For banks using other approaches to measure options risk, all options and the associated underlyings should be excluded from both the maturity ladder approach and the simplified approach.

[38] If one of the legs involves receiving/paying a fixed or variable interest/profit rate, that exposure should be slotted into the appropriate repricing maturity band in the maturity ladder covering interest/profit rate related instruments.

Models for Measuring Commodities Risk

4.104 Under the models approach Labuan banks may offset long and short positions in different commodities to a degree which is determined by empirical correlations, in the same way as a limited degree of offsetting is allowed, for instance, between interest/profit rates in different currencies.

Example 3: Maturity Ladder Approach for Commodities Risk

1. Assume all positions are in the same commodity as defined in paragraph 4.82 and converted at current spot rates into USD.

Table B

Time Band	Position (USD)	Spread Rate	Capital Calculation	USD
0-1 month		1.5%		
> 1-3 months		1.5%		
> 3-6 months	Long 800 Short 1000	1.5%	800 long + 800 short (matched) x 1.5% = 200 short carried forward to 1-2 years, capital charge: 200 x 2 x 0.6% =	24 2.4
> 6-12 months		1.5%	*	
> 1-2 years	Long 600	1.5%	200 long + 200 short (matched) x 1.5% = 400 long carried forward to over 3 years, capital charge: 400 x 2 x 0.6% =	6 4.8
> 2-3 years		1.5%	*	
> 3 years	Short 600	1.5%	400 long + 400 short (matched) x 1.5% =	12

Time Band	Position (USD)	Spread Rate	Capital Calculation	USD
			Net position: 200, Capital charge: 200 x 15% =	30
			Total Capital Charge	79.2

- The net position in the previous bucket is carried forward to the next bucket since no offset could be done in this bucket.

2. Assume all positions are in crude palm oil (CPO):

(i) A short position in forward contract of 15,000 tonne of CPO maturing in six months' time.

(ii) Swap position on 10,000 tonne notional amount of CPO, the Labuan bank receives spot price and pays fixed price. The next payment date occurs in 2 months' time (quarterly settlement) with residual life of 11 months.

First Step

Convert the positions at current spot rates (assuming current spot rate is USD2,500 per tonne).

(a) 15,000 tonne X USD2,500 = USD37.5 million

(b) 10,000 tonne X USD2,500 = USD25.0 million

Second Step

Slot the position in USD into the maturity ladder accordingly:

(a) Forward contract in "3-6 months" time-band as short position.

(b) Swap position in several time-bands reflecting series of positions equal to notional amount of the contract. Since the Labuan bank is paying fixed and receiving spot, the position would be reported as a long position. The payments occur (and is slotted accordingly in the respective time-bands) as follows:

- First Payment : month 2 (next payment date)
- Second Payment : month 5
- Third Payment : month 8
- Final payment : month 11 (end of life of the swap)

Table C

Time Band	Position (USD '000)	Spread Rate	Capital Calculation	USD '000
0-1 month		1.5%		
1-3 months	Long 25,000	1.5%	25,000 long carried forward to '1-3 months', capital charge: 25,000 x 0.6% =	1,500
3-6 months	Long 25,000 Short 37,500	1.5%	37,500 long + 37,500 short (matched) x 1.5% = Balance of 12,500, capital charge: 12,500 x 15% =	1,125 1,875
6-12 months	Long 25,000 Long 25,000	1.5%	Capital charge: 50,000 x 15% =	7,500
			Total Capital Charge	12,000

D.2.5 INVENTORY RISK

4.105 This part sets out the inventory risk capital charge arising from the exposure associated with the holding of the assets as inventories that are held for resale under the *Murabahah* contract, unbilled work-in-progress under *Istisna`* contract or leases under the Ijarah contract.

***Murabahah* and *Murabahah* for Purchase Order (MPO)**

4.106 A *Murabahah* contract refers to an agreement where Labuan bank sells a specified asset that is in its possession to the obligor at a mark-up price that represent the acquisition cost (purchase price plus other direct costs) plus an agreed profit margin.

4.107 A *Murabahah* for Purchase Order (MPO) contract refers to an agreement where the Labuan bank sells a specified asset that has been purchased or acquired based on an agreement to purchase (AP) by the obligor at a mark-up price. The AP can be structured based on a binding or non-binding agreement. Under the MPO transaction, Labuan bank anticipates that the orderer/obligor will subsequently purchase the acquired asset.

4.108 An asset shall be treated as an inventory of the Labuan bank in the event that it is acquired under a non-binding MPO transaction and held for resale to the obligor. Therefore, Labuan bank is exposed to the risk of changes in asset price. In terms of risk measurement, the capital charge for a market risk exposure arising from the holding of the inventory shall be 15% of the carrying value.

4.109 Assets in possession on a 'sale or return' basis are treated as accounts receivable from the vendor and as such shall be offset against the related accounts payable to the vendor. If these accounts payable have been settled, the assets shall attract a capital charge of 8%, subject to:

(i) the availability of documentation evidencing such an arrangement with the vendor; and

(ii) the period for returning the assets to the vendor have not been exceeded.

4.110 The obligor is obliged to undertake the delivery of an asset sold under the binding MPO contract. Therefore, Labuan bank is not exposed to price risk and is not subject to market risk capital charge.

4.111 The following table set out the capital charges arising from the holding of asset as inventory under the *Murabahah* contract:

Islamic Contract	Applicable Stage of the Contract	Market Risk Capital Charge
Murabahah and Non-binding MPO	Asset held for sale (asset on balance sheet)*	15% capital charge
Binding MPO	All stages	Not applicable

* Includes asset that is held arising from the cancellation of AP by an obligor

Istisna'

4.112 An *Istisna`* contract refers to an agreement to sell to or buy from an obligor a non-existent asset which is to be manufactured or built based on the specifications outlined by the ultimate buyer's at an agreed predetermined selling price and to be delivered on a specified future date. Labuan bank that is the seller of the asset under an *Istisna`* contract has the option to manufacture or build the asset on its own or to engage the services of another supplier or subcontractor that is other than the *Istisna`* ultimate buyer, by entering into a Parallel *Istisna`* contract.

4.113 In terms of exposure to market risk, Labuan bank that undertakes to sell the underlying asset under an *Istisna`* contract is expose to the price risk of the unbilled work-in-progress. Hence, Labuan bank is required to set aside a capital charge of 1.6% to cater for the market risk that it incurs from the date that the *Istisna`* contract is entered. The market risk capital charge on the unbilled work-in-progress is applicable throughout the period of the *Istisna`* contract.

4.114 Labuan bank may enter into a Parallel *Istisna`* with another party to mitigate the exposure to price risk, particularly in respect of input material or manufacturing costs. Hence, *Istisna`* with Parallel *Istisna`* contract is not subject to a market risk capital charge. Any variation in a Parallel *Istisna`* contract, which effectively transfer the whole price risk to *Istisna`* obligor, is also eligible for this treatment.

4.115 The following table sets out the applicable type and stages of the contract that attract market risk capital charges.

Islamic Contract	Applicable Stage of the Contract	Market Risk Capital Charge
Istisna` *	Unbilled work-in-progress	1.6% capital charge on work-in-progress inventory

* There is no market risk capital charge for Istisna` with Parallel Istisna`, provided that there is no provision under the Parallel Istisna` contract that allows the seller to increase or vary the selling price.

***Ijarah and Ijarah Muntahia Bittamleek* (IMB)**

4.116 Labuan bank that is the lessor under the *Ijarah* contract (either operating *Ijarah* or IMB) maintains the ownership on the leased asset. As an owner of the asset, the lessor assumes the liabilities and risks pertaining to the leased asset. The lessor is exposed to the price risk of the asset held under its possession prior entering into the lease contract, except where the asset is acquired based on a binding agreement to lease as described in paragraph (ii). In the case of IMB, the lessee however bears the residual value risk of the leased assets at the term of the contract.

4.117 Under an IMB contract, the lessor promises to transfer its ownership in the leased asset to the lessee at the end of the contract as a gift or at a specified consideration as stipulated under the contract.

4.118 Labuan bank that undertake to acquire or held an asset based on the agreement to lease (AL) under the operating *Ijarah* and IMB, may be considered to have entered into a binding AL provided that the terms are clearly stipulated under the AL. Hence, an asset that is acquired and held for the purpose of either operating *Ijarah* or IMB may be categorised as follows:

(i) Non-binding AL

The asset acquired and held for the purpose of leasing will be treated as inventory of the Labuan bank and therefore is exposed to market risk. In this regard, the market risk exposure shall be measured based on the simplified approach where the capital charge of 15% is imposed on the market value of the asset.

(ii) Binding A

Labuan bank that is the lessor under a binding AL is exposed to risk that the lease orderer's may default on its obligation to lease the asset from the lessor. In the event that the lease orderer defaulted on its AL, the lessor may either lease or dispose the asset to a third party. In this regard the

Labuan bank may have recourse to the security deposit or collateral provided by the obligor, and:

(a) may have the right to recoup any losses arising from the AL or disposal of the asset after taking into account the security deposit or collateral provided by the obligor; or

(b) may not have such right, depending on the agreed terms under the AL.

4.119 In view of that the Labuan bank that is a lessor may have the right to recoup any losses from the obligor as provided under paragraph 4.118 (ii)(a), thus Labuan bank would not have the exposure to price risk. On the contrary, Labuan bank that is the lessor will have an exposure to market risk under the second case as stipulated under 4.118 paragraph (ii)(b) where the market risk exposure (similar to the case on a non-binding AL) shall be calculated based on the cost of the asset to the Labuan bank. However, this risk exposure may be reduced by the amount of security deposit or collateral provided by the obligor to the Labuan bank.

Operating Ijarah

4.120 The leased asset held under the operating Ijarah is also exposed to market risk and therefore be subject to capital charges in accordance to the stages of the contract as follows:

(i) The capital charge of 8% of the residual value[39] of the asset is imposed during the lease period; and

(ii) Upon expiry of the lease contract, the carrying value of the leased assets attracts a capital charge of 15% until the asset is leased or disposed.

***Ijarah Muntahia Bittamleek* (IMB)**

4.121 The lessor will be exposed to the price risk in terms residual value of the leased asset after taking into consideration the refund of payments due to the lessee in

[39] Residual value of the leased asset under operating *Ijarah* is as per used for accounting purposes.

the event where the lessee exercises its right to cancel the lease. However, the price risk shall have been reflected as a 'haircut' that is to be applied to the leased asset as the collateral value for the credit risk. Therefore, the price risk, if any, is not applicable in the context of the IMB.

4.122 The following tables set out the applicable period of the contract that attracts market capital charges.

Islamic Contract	Applicable Stage of the Contract	Market Risk Capital Charge
Operating Ijarah *	Asset available for lease (prior to signing a lease contact)	15% capital charge until lessee undertake their right under the leasing contract
	Upon consigning a leasing contract and the lease rental payments are due from the lessee	8% capital charge based on the residual value of the leased asset
	Maturity of contract term and the leased asset is returned to the Labuan bank	15% capital charge of the carrying value of the asset
IMB*	Asset available for lease (prior to signing a lease contract)	15% capital charge until lessee undertakes their right under the IMB contract
	Upon consigning a leasing contract and subsequent transfer of ownership of the leased assets or sale to lessee	Not applicable
* Binding AL where Labuan banks have the right to recoup any losses from the obligor will not attract any capital charge		

D.2.6 TREATMENT OF OPTIONS

4.123 Options risks derived from Labuan bank's underwriting business shall be subjected to options treatment under the Underlying Positions Approach as detailed in this Part. Under this approach, underwriting of equity and debt activities are subjected to separate capital charges that incorporate both specific and general risk. The capital charge numbers are then added to the capital charges of other risk categories.

4.124 For activities involving options other than underwriting, there are four approaches available for measuring options related risks as follows:

(i) simplified approach;
(ii) delta-plus approach;
(iii) scenario approach; and
(iv) Internal model approach.

4.125 Labuan banks which are exposed to a limited range of purchased options are allowed to use the simplified approach. Labuan banking institutions which also write options will be expected to use either the delta-plus approach or scenario approach. The use of internal model approaches would require Labuan banks to obtain prior approval from Labuan FSA. Labuan banks with significant options trading activities will be expected to use a more sophisticated approach.

Underlying Position Approach

4.126 Labuan banks whose option risk is from underwriting of equity IPO, rights issues and debt securities/*sukūk*, may use the underlying position approach to estimate the required capital charge for these transactions on a trade-by-trade basis, as described below:

Table 9: Underlying Position Approach: Capital Charges

Position	Treatment
Underwriting of equity type instrument; IPO and rights issue	The capital charge will be the amount of equity in the underwriting agreement which the Labuan bank is committed to underwrite[40] multiplied by the sum of specific risk and general risk weights as defined in Table 7 of Part D.2.2 Equity Position Risk. The resultant amount is then multiplied by 50%, the conversion factor which estimates the pick-up probability. The recognition period for the underwriting equity risk begins from the date when the underwriting agreement is signed until the date of issuance. Equity positions held post-issuance date would be treated as per Part D.2.2 Equity Position Risk.
Underwriting of debt instruments/ *sukūk*	The amount of debt/*sukūk* to be raised in the underwriting agreement in which the Labuan bank is committed to underwrite[103], multiplied by 50%, the conversion factor which estimates the pick-up probability. The resultant figure will be incorporated into Part D.2.1 Interest/Profit Rate Risk to calculate the capital charge for general risk. For specific risk charge, the same resultant figure is multiplied by the specific risk charge stipulated in Table 2 in Part D.2.1 Interest/Profit Rate Risk of the Guidelines. The recognition period for the underwriting of debt instruments/*sukūk* begins from the date when the underwriting agreement is signed until the date of issuance[41]. Debt/*sukūk* positions held post-issuance date would be treated as per Interest/Profit Rate Risk described in Part D.2.1

[40] Underwriting commitments can be netted off against sell down (back-to-back) arrangements established with unrelated parties, where the arrangement is unconditional, legally binding and irrevocable, and where the banking institution has no residual obligation to pick up the purported sell down portion.

[41] In most cases of underwriting of short-term debt/*sukūk* such as commercial papers, given that the returns are usually based on cost of funds/expected returns to investors plus a spread, where the cost of funds/expected returns to investors is determined one or two days before issuance, the real exposure to the institutions arising from the underwriting agreement is more of the credit risk of the issuer rather than on the fluctuation of the interest/profit rate. As such, for specific risk, the recognition period for underwriting of commercial papers/short term debts papers/*sukūk* begins from the date when the underwriting agreement is signed until the date of issuance whilst for general risk, the recognition period for underwriting of commercial papers/short term debts/*sukūk* begins from the date a rate is fixed (for example, *sukūk murabahah)* until the date of issuance. In the event that market practice changes or in the case of underwriting of debt instruments which assumes characteristics of interest/profit rate options, these positions should be reflected accordingly. An illustration on the treatment for such underwriting exposures is provided in **Appendix VII**.

4.127 To illustrate how the calculation would work in the case of underwriting equities, assume an institution underwrites USD2 million in shares of a non KLCI equity at issue price of USD2.00 each. The capital charge for a non KLCI equity is 22% (that is 14% for specific risk and 8% for general risk). The capital charge would amount to USD220,000 (USD2 million x 22% x 50%).

Simplified Approach

4.128 Only Labuan banks which handle a limited range of purchased options are allowed to use the simplified approach set out in Table 10 for particular trades. As an example of how the calculation would work, if a holder of 100 KLCI shares currently valued at USD10 each holds an equivalent put option with a strike price of USD11, the capital charge would be: USD1,000 x 16% (that is 8% specific plus 8% general market risk) = USD160, less the amount the option is in the money (USD11 - USD10) x 100 = USD100, that is the capital charge would be USD60. A similar methodology applies for options whose underlying is a foreign currency, an interest/profit rate related instrument or a commodity.

Table 10: Simplified Approach: Capital Charges

Position	Treatment
Long cash and Long put Or Short cash and Long call	The capital charge will be the market value of the underlying security[42] multiplied by the sum of specific and general market risk charges[43] for the underlying less the amount the option is in the money (if any) bounded at zero[44]
Long call Or Long put	The capital charges will be the lesser of: (i) The market value of the underlying security multiplied by the sum of specific and general market risk charges[96] for the underlying; or (ii) The market value of the option[45]

Delta-Plus Method

4.129 Labuan banks which write options may be allowed to include delta-weighted option positions within the standard method set out in Part D.2[46]. Such options should be reported as a position equal to the sum of the market values of the underlying multiplied by the sum of the values of the deltas. However, since delta does not cover all risks associated with option positions, Labuan banks are also required to measure Gamma (which measures the rate of change of delta) and Vega (which measures the sensitivity of the value of an option with respect to a change in volatility) in order to calculate the total capital charge.

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42 In some cases such as foreign exchange, it may be unclear which side is the 'underlying security'; this should be taken to be the asset which would be received if the option were exercised. In addition the nominal value should be used for items where the market value of the underlying instrument could be zero, for example, caps and floors, swaptions etc.

43 Some options (for example, where the underlying is an interest/profit rate, a currency or a commodity) bear no specific risk but specific risk will be present in the case of options on certain interest/profit rate related instruments (e.g. options on a corporate debt security/*Sukuk* or corporate bond index; see Table 2, Part D.2.1 Interest/Profit Rate Risk for the relevant capital charges) and for options on equities and stock indices (see Table 7, Part D 2.2 Equity Position Risk). The capital charge for currency options will be 8% and for options on commodities will be 15%.

44 For options with a residual maturity of more than six months the strike price should be compared with the forward, not current, price. A bank unable to do this must take the in the money amount to be zero.

45 Where the position does not fall within the trading book (that is options on certain foreign exchange or commodities positions not belonging to the trading book), it may be acceptable to use the book value instead.

46 Delta measures the sensitivity of an option's value to a change in the price of the underlying asset.

4.130 Delta-weighted positions with debt securities/*sukūk* or interest/profit rates as the underlying will be slotted into the interest/profit rate time bands, as set out in Part D.2.1 Interest/Profit Rate Risk. Similar to other derivative transactions, a two-legged approach is used, which requires one entry at the time the underlying contract takes effect and a second entry, at the time the underlying contract matures. For instance, a bought call option on a June three month interest/profit rate future will in April be considered, on the basis of its delta-equivalent value, a long position with a maturity of five months and a short position with a maturity of two months[47]. The written option will be similarly slotted as a long position with a maturity of two months and a short position with a maturity of five months. Floating-rate instruments with caps or floors will be treated as a combination of floating- rate securities and a series of European-style options. For example, the holder of a three-year variable rate *Sukuks* indexed to 6-month KLIBOR with a cap of 15% will be treated as:

(i) *Sukuk* that reprices in six months; and

(ii) a series of five written call options on a FRA with a reference rate of 15%, each with a negative sign at the time the underlying FRA takes effect and a positive sign at the time the underlying FRA matures.

4.131 The capital charge for options with equities as the underlying assets are based on the delta-weighted positions which will incorporate the measure of market risk described in Part D.2.2 Equity Position Risk**.**

4.132 The capital charge for options on foreign exchange is based on the delta-weighted position which will incorporate measurement of the exposure for the respective currency position as described in Part D.2.3 Foreign Exchange Risk.

[47] A two month call option on a bond future where delivery of the bond takes place in September would be considered in April as being a long position in the bond and a short position in the five months deposit, both positions being delta-weighted.

4.133 The capital charge for options on commodities is based on simplified or the maturity ladder approach set out in D.2.4 Commodities Risk. The delta-weighted positions will be incorporated in one of the measures described under that part.

4.134 In addition to the above capital charge arising from delta risk, there will be further capital charges for Gamma and for Vega risk. Labuan banks using the delta-plus method will be required to calculate the Gamma and Vega for each option position separately.

4.135 The capital charges for Gamma risk should be calculated in the following way:

$$\textit{Gamma impact} = 1/2 \times \text{Gamma} \times (\text{VU})^2$$

where VU denotes the variation in the price of the underlying of the option.

VU will be calculated as follows:

(i) for interest/profit rate options, the market value of the underlying should be multiplied by the risk weights set out in Table 3 of D.2.1 Interest/Profit Rate Risk;

(ii) for options on equities and equity indices, the market value of the underlying should be multiplied by the equity general risk charge set out in Table 7 of Part D.2.2 Equity Position Risk;

(iii) for options on foreign exchange, the market value of the underlying multiplied by 8%; and

(iv) for options on commodities, the market value of the underlying should be multiplied by 15%.

4.136 For the purpose of calculating the Gamma impact the following should be treated as the same underlying:

(i) for interest/profit rates[48], each time band as set out in Table 3 of Part

[48] Positions have to be slotted into separate maturity ladders by currency.

D.2.1 Interest/Profit Rate Risk;

(ii) for equities and stock indices, each national market;

(iii) for foreign currencies, each currency pair; and

(iv) for commodities, each individual commodities.

4.137 Each option on the same underlying will have a Gamma impact that is either positive or negative. These individual Gamma impacts are aggregated, resulting in a net Gamma impact for each underlying which is either positive or negative. Only net Gamma impacts that are negative will be included in the capital calculation.

4.138 The total Gamma capital charge will be the sum of the absolute value of the net negative Gamma impacts as calculated above.

4.139 To calculate *Vega risk,* Labuan banks must multiply the Vega for each option by a 25% proportional shift of the option's current volatility. The results are then summed across each underlying. The total capital charge for Vega risk is calculated as the sum of the absolute value of Vega across each underlying.

4.140 An illustration of the use of the Delta-plus method is provided in Example 4.

Scenario Approach

4.141 Labuan banks will also have the right to base the market risk capital charge for options portfolios and associated hedging positions using the *scenario matrix analysis*. This will be accomplished by specifying a fixed range of changes in the option portfolio's risk factors (that is underlying price/rate and volatility) and calculating changes in the value of the option portfolio and its associated hedging positions at various points along this matrix. To calculate the capital charge, Labuan bank has to revalue the option portfolio using matrices for simultaneous changes in the option's underlying rate or price and in the volatility of that rate or price. A different matrix will be set up for each individual underlying position. In the case of interest/profit rate options, an alternative method is permitted for

Labuan banks to base the calculation on a minimum of six sets of time bands. When using this method, not more than three of the time bands (as defined in Table 5, Part D.2.1 Interest/Profit Rate Risk) should be combined into any one set.

4.142 The options and related hedging positions will be evaluated over a specified range above and below the current value of the underlying – this defines the first dimension of the matrix. The range for changes in interest/profit rate is consistent with the assumed changes in yield in Table 5 of Part D.2.1 Interest/Profit Rate Risk. Labuan banks that use the alternative method for interest/profit rate options set out in the previous paragraph should use the highest of the assumed changes in yield for each set of the time bands that is applicable to the group to which the time bands belong[49]. The other ranges are the equity general risk charge stipulated in Table 7 for equities, and ± 8% for foreign exchange, gold and silver, and ± 15% for commodities. For all risk categories, at least seven price shifts (including the current observation) should be used to divide the range into equally spaced intervals.

4.143 The second dimension of the matrix entails a change in the volatility of the underlying rate or price. A single change in the volatility of the underlying rate or price equal to a proportional shift in volatility of ±25% is expected to be sufficient in most cases. As circumstances warrant, however, Labuan FSA may require that a different change in volatility be used and/or that intermediate points on the matrix be calculated.

4.144 After calculating the matrix, each cell should contain the net profit or loss of the option and the underlying hedge instrument. The capital charge for each underlying will then be calculated as the largest loss contained in the matrix.

[49] If, for example, in the case of options involving G10 currency interest/profit rate risk, where the time bands "> 3 to 4" years, "> 4 to 5" years and "> 5 to 7" years are combined, the highest assumed change in yield of these three bands would be 0.75 percentage point.

4.145 The application of the scenario method by any specific Labuan bank will be subjected to supervisory consent, particularly with regard to the precise way that the analysis is constructed.

4.146 An illustration of the use of the Scenario Approach is provided in Example 5.

Example 4: Delta-Plus Methods for Options

A. A Single Stock Option

1. Assume Labuan bank has a European short call option to sell 1000 units of a KLCI stock with an exercise price of USD45 and a market value (spot price) of the underlying 12 months from the expiration of the option at USD50; a risk-free interest/profit rate at 8% per annum, and volatility at 20%. The current unit delta for this position is according to the Black-Scholes formula - 0.848 (that is the price of the option changes by -0.848 if the price of the underlying moves by USD1). The unit Gamma is -0.0235 (that is the delta changes by -0.0235, from -0.848 to -0.872, if the price of the underlying moves by USD1). The Gamma is (-0.0235 × 1,000) = -23.55. The current value of the option is USD9.328 × 1,000 = USD9,328.

2. The market risk capital charge for the single stock option is the summation of:

   (i) Specific Risk and General Risk on delta-weighted position incorporated in Part D.2.2 Equity Position Risk; and

   (ii) Gamma and Vega risks charge provided under Part D.2.6 Treatment of Options.

Specific Risk and General Risk on delta-weighted position of equity options which will be incorporated in Part D.2.2 Equity Position Risk

3. To compute the specific risk and general risk on delta-weighted position of the stock option position, the following steps should be taken:

(a) The first step under the delta-plus method is to calculate the delta- weighted option position. This is accomplished by multiplying the market value of 1 unit of underlying or spot price, the number of units to be sold and the value of the delta

$$50 \times 1{,}000 \times (-0.848) = -\text{USD}42{,}400.$$

The delta-weighted position then has to be incorporated into the Guidelines described in Part D.2.2 Equity Position Risk.

(b) The specific risk for the stock option will be the multiplication of the delta-weighted position and the specific risk weight of the underlying equity (KLCI stock specific risk weight = 8%, refer to Table 7 of Part D.2.2 Equity Position Risk). Hence, the capital charge for specific risk will be:

$$-\text{USD}42{,}400 \times 0.08 = \text{USD}3{,}392$$

(c) The delta risk charge will be calculated by incorporating the delta-weighted option position together with the other net equity positions generated in Part D.2.2 Equity Position Risk. Assuming that no other positions exist, the delta risk of the stock option is calculated as the multiplication of the delta-weighted position and the 8% general risk weight accorded to equities. Hence, the capital charge for general risk is calculated as:

$$-\text{USD}42{,}400 \times 0.08 = \text{USD}3{,}392$$

The total capital charge for specific risk and general risk on delta-weighted position which should be reflected in Part D.2.2 Equity Position Risk will be: USD6,784 (that is 3,392 + 3,392).

Gamma and Vega Risks carved out to be provided under Part D.2.6 Treatment of Options

4. Under the delta-plus method, the capital charges for Gamma and Vega risk will be calculated as follows:

(a) The capital charge for Gamma, only negative gamma impact should be included and has to be calculated according to the formula set out in paragraph 4.121 in Part D.2.6 Treatment of Options:

1/2 × Gamma × (market value of 1 unit of the underlying or spot price × 0.08)^2

1/2 × (23.55) × (50 × 0.08) 2 = **USD188**

(b) The capital charge for Vega has to be calculated separately. The assumed current (implied) volatility is 20%. As an increase in volatility carries a risk of loss for a short call option, the volatility has to be increased by a relative shift of 25%. This means that the Vega capital charge has to be calculated on the basis of a change in volatility of 5 percentage points from 20% to 25% in this example. According to the Black-Scholes formula used here, the unit Vega equals 11.77. Thus a 1% or 0.01 increase in volatility increases the value of the option by 0.1177 Accordingly, a change in volatility of 5 percentage points would increase the value by:

5 × 0.1177 × 1,000 = **USD589**

which is the capital charge for Vega risk.

The total capital charge for Gamma and Vega risk which should be disclosed **in** Part D.2.6 Treatment of Options under the Delta-plus method will be **USD777** (that is 188 + 589).

5. The total market risk capital charge for 1,000 units of a single stock call option sold, with the stock price of USD50, is USD7,561 (that is 6,784 + 777).

B. A portfolio of Foreign Exchange Options

6. Assume Labuan bank has a portfolio of options with the following characteristics:

Option	Currency Pair	Nominal amount	Market Value of 1 unit of Underlying (Spot Price)	Market Value of 1 unit of Underlying (RM)	Market Value of Underlying (RM)
1	USD/RM	USD100,000	3.132	RM3.132	313,200
2	USD/RM	USD600,000	3.132	RM3.132	1,879,200
3	USD/RM	USD200,000	3.132	RM3.132	626,400
4	USD/RM	USD300,000	3.132	RM3.132	939,600
5	GBP/JPY	GBP100,000	131.806	GBP1 = JPY131.806 * 0.0374586968 = RM4.937	493,700
6	GBP/JPY	GBP50,000	131.806	RM4.937	246,850
7	GBP/JPY	GBP75,000	131.806	RM4.937	370,275

Option	Currency Pair	Market Value of Underlying (RM)	Unit Delta	Unit Gamma	Gamma (RM)	Unit Vega	Assumed Volatility (%)
1	USD/RM	313,200	-0.803	0.0018	564	1.84	5
2	USD/RM	1,879,200	-0.519	-0.0045	-8,456	-3.87	20
3	USD/RM	626,400	0.182	-0.0049	-3,069	-0.31	20
4	USD/RM	939,600	0.375	0.0061	5,732	-4.97	10
5	GBP/JPY	493,700	-0.425	0.0065	3,209	5.21	10
6	GBP/JPY	246,850	0.639	-0.0016	-395	-4.16	7
7	GBP/JPY	370,275	0.912	0.0068	2,518	3.15	5

7. The market risk capital charge for the portfolio of foreign exchange options is the summation of:

(i) General Risk on delta-weighted position incorporated in Part D.2.3 Foreign Exchange Risk; and

(ii) Gamma and Vega risks charge provided under Part D.2.6 Treatment of Options.

General Risk on delta-weighted position of currency options which will be incorporated in Part D.2.3 Foreign Exchange Risk

8. To compute the general risk on delta-weighted position of the foreign exchange option portfolio, the following steps should be taken:

(a) The first step under the delta-plus method is to calculate the delta-weighted option position. This is accomplished by multiplying the value of each option's delta by the market value of the underlying currency position (see Table C, column 3). This leads to the following net delta- weighted position in each currency:

Table C

Option	Currency Pair	Delta × Market Value of Underlying
1	USD/RM	-251,500
2	USD/RM	-975,305
3	USD/RM	114,005
4	USD/RM	352,350
5	GBP/JPY	-209,823
6	GBP/JPY	157,737
7	GBP/JPY	337,691

(b) Assuming that Labuan bank holds no other foreign currency positions, inclusion of these positions into the Guidelines set out in Part A.3 Foreign

Exchange Risk yields a net open delta-weighted position of 1,046,055 (the larger of either the sum of the net short positions or the sum of the net long positions across currency pairs) and a capital charge of **USD83,684** (1,046,055 × 0.08).

GBP	USD	JPY
+ 285,605	- 760,450	- 285,605
+ 285,605.45	- 1,046,055	

Hence, the capital charge for general risk on delta-weighted position of the foreign exchange option which should be reflected in Part D.2.3 Foreign Exchange Risk will be **USD83,684.**

Gamma and Vega Risks carved out to be provided under Part D.2.6 Treatment of Options

9. Under the delta-plus method, the capital charges for Gamma and Vega risk will be calculated as follows:

(a) The Gamma impact (see Table D, column 3) for each option is calculated as:

1/2 × Gamma (RM) × (market value of 1 unit of underlying (RM) × 0.08)^2

For each underlying, in this case currency pair, a net Gamma impact is obtained:

USD/RM	-164.18
GBP/JPY	+415.92

Only the negative Gamma impacts are included in the capital calculation, hence the Gamma charge here is **USD164**.

Table D

Option	Currency Pair	Gamma Impact (RM)	Net Gamma Impact (RM)
1	USD/RM	17.70	-164.18
2	USD/RM	-265.45	
3	USD/RM	-96.35	
4	USD/RM	179.91	
5	GBP/JPY	250.32	+4 15.92
6	GBP/JPY	-30.81	
7	GBP/JPY	196.41	

(b) The Vega capital charge is based on the assumed implied volatilities for each option which are shown in Table E column 3. The 25 per cent volatility shifts are shown in Table E column 5. Multiplying these shifts with each option's Vega and the market value of underlying, yields the assumed price changes (shown in Table E column 6). These are then summed up for each currency pair. The net Vega impact for each currency pair is:

USD/RM	-27,757.35
GBP/JPY	+33,895.59

Since no netting of Vegas is permitted across currency pairs, the capital charge is calculated as the sum of the absolute values obtained for each currency pair: 27,757 + 33,896 = **USD61,653**

Table E

Option	Currency Pair	Assumed Volatility (%)	Vega	Volatility Shift (Percentage Points)	Change in Value (RM)	Net Vega Impact (RM)
1	USD/RM	5	1.84	1.25	7,203.60	-27,757.35
2	USD/RM	20	-3.87	5.00	-90,906.30	
3	USD/RM	20	-0.31	5.00	-2,427.30	

4	USD/RM	10	4.97	2.50	58,372.65	
5	GBP/JPY	10	5.21	2.50	32,152.21	+33,895.59
6	GBP/JPY	7	-4.16	1.75	-12,836.20	
7	GBP/JPY	5	3.15	1.75	14,579.58	

The total capital charge for Gamma and Vega risk arising from the options portfolio which should be disclosed in Part D.2.6 Treatment of Options under the Delta-plus method is USD61,817 (that is 164 + 61,653).

10. The total market risk capital charge for the portfolio of foreign currency options is USD145,501 (that is 83,684 + 61,817).

Example 5: The Scenario Approach for Options

1. Consider a Labuan bank holding a portfolio of two KLCI equities and two options on the same equities as set out below:

Equity

		No of Shares	Current Price (USD)
Long	ABC	100	19.09
Short	XYZ	-50	1.79

Option

	No. of Shares	Option Type	Delta	Time to Expiry (yrs)	Strike Price (RM)	Current Volatility (%)
Long ABC	50	Call	0.43	0.45	20.00	15.0
Short XYZ	20	Put	-0.76	0.36	2.25	42.0

(Assumed risk free rate: 5%)

2. The market risk capital charge for the portfolio is the summation of the:

(i) Specific Risk of the equities and delta-weighted positions of underlying

equities. This specific risk is incorporated in Part D.2.2 Equity Position Risk of the Guidelines; and

(ii) General Risk of the portfolio, which is carved out and subjected to Scenario Approach in Part D.2.6 Treatment of Options of the Guidelines.

Specific Risk of the equities and delta-weighted positions of the underlying equities to be incorporated in Part D.2.2 Equity Position Risk

3. To compute the specific risk for the equities and equity options, the following steps should be taken:

(a) Calculate the delta-weighted positions of the underlying equities – the delta weighted option is calculated by multiplying the value of each option's delta by the market value of the underlying equity (see Table F, column 2). This leads to the following net delta-weighted position in each equity:

Table F

Options Position	Delta × Market Value of Underlying (USD)	Number of Shares	Total Position (USD)
Option on ABC	8.115	50	405.75
Option on XYZ	-1.363	20	-27.25

Equity Position	Market Value (USD)	Number of Shares	Total Position (USD)
ABC	19.09	100	1,909.00
XYZ	1.79	- 50	-89.50

Assuming that Labuan bank does not hold other equity positions, the delta weighted positions of the options will be added to the respective value of equities (ABC and XYZ) held. The net position for each equity will be

incorporated in Part D.2.2 Equity Position Risk of this Guidelines and the values are as follows:

ABC = + 2,314.75 [405.75 + 1,909.00]

XYZ = - 116.75 [-27.25 - 89.50]

(b) Calculate the specific risk charge by multiplying the specific risk weight of the equities as listed in Table 7 of Part D.2.2 Equity Position Risk. In this example, the specific risk weight is 8% for KLCI equities. Hence, the total capital charge for specific risk to be reflected in Part D.2.2 Equity Position Risk will be USD194.52 [(2,314.75 x 0.08) + (116.75 x 0.08)].

General Risk is carved out and be subjected to the Scenario Approach in Part D.2.6 Treatment of Options

4. To compute the general risk under the Scenario Approach, the following procedures are taken:

(a) Apply the price movements over the range ±8% to the equity positions. The change in portfolio values is shown below:

Change in Value of Equity Positions

	Assumed Price Change (%)						
	-8.00	**-5.33**	**-2.67**	**0.00**	**2.67**	**5.33**	**8.00**
ABC	-152.72	-101.81	-50.91	0.00	50.97	101.74	152.72
XYZ	7.16	4.77	2.39	0.00	-2.39	-4.77	-7.16

(b) Apply the matrix of price and volatility movements to the ABC call options and the changes in the value of the options are shown below:

ABC Options - Change in Value

Assumed Volatility Change (%)	Assumed Price Change (%)						
	-8.00	**-5.33**	**-2.67**	**0.00**	**2.67**	**5.33**	**8.00**
+25	-15.57	-9.21	-0.92	9.46	21.98	36.58	53.15
0	-21.46	-16.58	-9.53	0.00	12.17	26.95	44.15
-25	-25.82	-22.84	-17.58	-9.32	2.36	17.51	35.78

(c) Holding of XYZ put options will be subjected to the same treatment as per (b) above and the changes in the value of the options are shown below.

XYZ Options - Change in Value

Assumed Volatility Change (%)	Assumed Price Change (%)						
	-8.00	**-5.33**	**-2.67**	**0.00**	**2.67**	**5.33**	**8.00**
+25	+2.82	+2.20	+1.46	+0.75	+0.07	-0.58	-1.08
0	+2.26	+1.59	+0.78	0.00	-0.74	-1.45	-1.99
-25	+1.87	+1.13	+0.24	-0.63	-1.45	-2.24	-2.84

(d) Summing the changes in the value for ABC and XYZ equities and the equity options to arrive at the contingent loss matrix for the total portfolio as shown below:

Total Portfolio - Change in Value

Assumed Volatility Change (%)	Assumed Price Change (%)						
	-8.00	**-5.33**	**-2.67**	**0.00**	**2.67**	**5.33**	**8.00**
+25	-158.31	-104.05	-47.98	10.21	70.56	133.04	197.63
0	-164.76	-112.03	-57.27	0.00	59.95	122.54	187.72
-25	-169.52	-118.75	-65.86	-9.95	49.43	112.30	178.50

The general risk capital charge for the portfolio will be the largest loss arising from changes in the price of the equities and volatility of the options as shown in the matrix above - in this case is 169.52. This capital charge will be reflected in Part D.2.6 Treatment of Option under the Scenario approach.

5. The total market risk capital charge for the portfolio is 364.04 (that is 169.52+194.52).

PART E LARGE EXPOSURE RISK REQUIREMENTS

E.1 LERR FOR LABUAN BANKS

5.1 Labuan bank shall compute its Large Exposure Risk Requirement (LERR) in relation to its holding of equities (excluding the holdings of units of unit trust funds).

5.2 The LERR for a single equity capital charge shall be applied at all times on an exposure to a single equity that is greater than either the lower of 15% of the Labuan bank's Total Capital or 10% of the issuer's paid-up capital. For equity positions held in the trading book, the capital charge is determined by multiplying the market value of the equity position in excess of the threshold, with the sum of the corresponding general and specific risk weights outlined in the market risk component of the Guidelines. For positions held in the banking book, the capital charge is determined by multiplying the value in excess of the threshold with the corresponding risk weight (i.e. 100%). For trading book exposures, the LERR capital charge shall be multiplied by a factor of 12.5 to arrive at a risk- weighted asset equivalent. An illustration for the calculation of LERR is given in **Appendix III**.

5.3 Shares and interest-in-shares that are acquired as a result of underwriting commitments, debt satisfaction and debt-equity conversions shall be subject to the LERR capital charge only if the shares and interest-in-shares remain with the Labuan bank after 12 months from the date of acquisition or conversion.

PART F SECURITISATION FRAMEWORK

F.1 INTRODUCTION

6.1 The Securitisation Framework outlines:

(i) the approaches in determining regulatory capital requirements on exposures arising from traditional and synthetic securitisations[50] held in the banking book; and

(ii) the operational requirements for allowing regulatory capital relief for originating banking institutions.

6.2 Under the Securitisation Framework, all Labuan banks, whether acting as originators or as third-party investors, must hold regulatory capital against all securitisation exposures (on- or off-balance sheet) in the banking book[51] arising from traditional and synthetic securitisations or structures that contain features similar to both[52], hereinafter referred to as 'securitisation exposures'. Such securitisation exposures may arise from a Labuan bank's:

(i) investments in any securitisation issue, including retention or repurchase of one or more securitisation positions;

(ii) provision of credit risk mitigants or credit enhancement to parties to securitisation transactions;

(iii) provision of liquidity facilities or other similar facilities;

(iv) obligations due to early amortisation features in a securitisation; or

(v) entitlements to future income generated by a securitisation through various

[50] Or similar structures that contain features common to both, including Islamic securitisations. Pending the development of a framework for Islamic securitisation transactions, this Securitisation Framework will similarly apply to Shariah-compliant securitisation exposures, where applicable.

[51] Securitisation exposures held in the trading book are subject to interest/profit rate risk charges (specific and general risks) as outlined in the market risk component of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Risk-Weighted Assets)*.

[52] For example, a collateralised debt obligation (CDO) that includes a credit-linked note issued out of another synthetic securitisation transaction is considered a structure which contains features of both traditional and synthetic securitisations.

forms of arrangements such as deferred purchase price, excess servicing income, gain-on-sale, future margin income, cash collateral accounts or other similar arrangements.

6.3 General descriptions of terms used in the Securitisation Framework are provided in **Appendix V**.

F.2 OPERATIONAL REQUIREMENTS FOR CAPITAL RELIEF

6.4 Regulatory capital relief is granted based on the assessment of whether risks under a securitisation transaction have been effectively and significantly transferred. The extent to which securitisation exposures are retained through arrangements during the life of the transaction such as the provision of unconditional liquidity facilities will also be considered. The operational requirements for such capital relief are detailed in paragraphs 6.7. An originating banking institution may, upon receiving written approval for capital relief from Labuan FSA, exclude the underlying assets that have been securitised (securitised exposures), whether from the banking book or trading book, from the calculation of risk-weighted assets or reduce the capital requirement using credit risk mitigation (CRM) techniques in accordance with the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*. Originating banking institutions must still hold regulatory capital for any securitisation exposures retained.

6.5 Originating banking institutions must hold regulatory capital for all of the underlying securitised exposures in the case of failure to meet any of the operational requirements referred to in paragraph 6.7, as if the underlying exposures had not been securitised. In this case, originating banking institutions need not hold additional regulatory capital for the securitisation exposures retained.

6.6 Notwithstanding any capital relief granted, an originating banking institution is expected to monitor and control risks arising from the continued retention of the securitised exposures (e.g. as provider of liquidity facility). This should include the continuing assessment of any change in the risk profile of the transaction and the

resulting impact on capital arising from the Labuan bank's role in the transaction. Corresponding contingency plans to deal with the risk and capital impact must be put in place.

6.7 An originating banking institution may exclude an underlying pool of exposures from the calculation of capital requirements, if all of the following requirements are met on an ongoing basis:

(i) significant credit risk associated with the securitised exposures has been transferred to third parties[53];

(ii) the originating banking institution does not maintain effective or indirect control over the transferred exposures. The assets are legally isolated[54] from the originating banking institution in a manner (e.g. through the sale of assets or through sub-participation) that the exposures are beyond the reach of the originating banking institution and its creditors, even in bankruptcy or receivership. These conditions must be supported by an opinion provided by a qualified legal counsel[55]. The originating banking institution is deemed to have maintained effective or indirect control over the transferred credit risk exposures if it is:

(a) able to repurchase from the transferee (i.e. SPV) the previously transferred exposures in order to realise their benefits; or

(b) obligated to retain the risk of the transferred exposures. The originating banking institution's retention of servicing rights to the exposures will not necessarily constitute indirect control of the exposures;

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[53] For the purpose of the Securitisation Framework, with the exception of SPVs, entities in which the consolidated treatment is applied for capital adequacy purposes, as outlined in Capital Adequacy Framework for Labuan banks (General Capital Components) are not included within the definition of a third-party.

[54] Examples of methods of legal transfer normally adopted in traditional securitisation transaction are provided in Appendix III.

[55] For this purpose, both internal and external legal counsels are acceptable. Nevertheless, Labuan FSA may, at its discretion require an additional legal opinion from an independent counsel where a second opinion is appropriate.

(iii) the *sukuk* issued are not obligations of the originating banking institution. Thus, investors who purchase the securities have recourse only to the underlying pool of exposures;

(iv) the transferee is a special purpose vehicle (SPV) and the holders of the beneficial interests in that entity have the right to pledge or exchange the interests without restriction;

(v) the securitisation does not contain clauses that;

(a) require the originating Labuan banking institutions to alter systematically the underlying exposures to improve the credit quality of the pool;

(b) allow for increases in a retained first loss position or credit enhancement provided by the originating banking institution after the inception of the transaction; or

(c) increase the yield payable to parties other than the originating banking institution, such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the underlying pool; and

(vi) clean-up calls, if any, satisfy the conditions set out in Part F.4.1.

F.3 STANDARDISED APPROACH FOR SECURITISATION EXPOSURES

F.3.1 REQUIREMENTS OF USE OF EXTERNAL RATINGS

6.8 For risk-weighting of rated securitisation exposures, Labuan banks are only allowed to use external ratings provided by External Credit Assessment Institutions (ECAI) recognised by Labuan FSA. In addition, Labuan banks must ensure that the use of external ratings for risk-weighted capital adequacy purposes meets the following conditions:

(i) the external rating shall incorporate features of underlying Shariah contract that give rise to different risk profile in its credit assessment;

(ii) the external rating is made publicly available i.e. a rating must be published in an accessible form. Credit ratings that are made available only to the parties to a securitisation transaction (e.g. rating on a particular securitisation exposure made available upon request by parties to the transaction) are not considered as a public rating for purposes of the Securitisation Framework;

(iii) the external rating is reflective of the entire amount of the Labuan banking's credit risk exposure with regard to all payments owed to it. For example, if Labuan Islamic banking institution is owed both principal and profit, the assessment must fully take into account and reflect the credit risk associated with timely repayment of both principal and profit;

(iv) external ratings provided by the ECAIs are applied consistently across a given type of securitisation exposure. In particular, Labuan banking is not allowed to use an ECAI's credit rating for one or more tranches and another ECAI's rating for other tranches within the same securitisation structure that may or may not be rated by the first ECAI. In cases where a securitisation exposure is rated by more than one ECAI, the requirements in paragraphs 8.2 and 8.3 of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)* shall apply;

(v) if credit risk mitigation (CRM) is provided directly to an SPV by an eligible guarantor (i.e. eligible credit protection) and is reflected in the external rating assigned to a securitisation exposure, the risk weight associated with that external rating should be used. However, if the CRM provider is not an eligible guarantor, the rating for the 'guaranteed' securitisation exposure should not be recognised and the exposure should be treated as unrated (except for securitisation exposures mentioned in paragraph 6.12); and

(vi) in the situation where CRM is applied to a specific securitisation exposure within a given structure (e.g. hedging a senior tranche exposure), Labuan bank shall disregard the rating attached to the exposure and use the CRM treatment instead, as outlined in *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)* in order to recognise the hedge. However,

if the CRM becomes ineligible, the rating attached to the securitisation exposure should be used for risk-weighting purposes[56].

6.9 While BCAF primarily relies on external credit assessments, Labuan bankings must exercise prudence to ensure that the external credit assessments do not substitute for the Labuan bank's own due diligence in the credit assessment process. In order to use external ratings under the Securitisation Framework, a Labuan bank must have the following:

(i) a comprehensive understanding of the risk characteristics of its individual securitisation exposures, whether on balance sheet or off-balance sheet, as well as the risk characteristics of the pools underlying the securitisation exposures. As part of their investment due diligence process, Labuan bank should also consider the extent to which the originator or sponsor of the securitisation shares a similar economic interest as that of investors (for example, as indicated by the proportion of underlying exposures retained by the originator);

(ii) a thorough understanding of all structural features of a securitisation transaction that would materially impact the nature of the Labuan bank's exposures to the transaction, such as the contractual waterfall and waterfall-related triggers, credit enhancements, the Shariah contract applied, liquidity enhancements, market value triggers, and deal-specific definitions of default; and

(iii) access to performance information on the underlying pools on an ongoing basis in a timely manner. Such information may include, as appropriate: exposure type; percentage of financing 30, 60 and 90 days past due; default rates; prepayment rates; financings in foreclosure; property type; occupancy; average credit score or other measures of credit worthiness; progress of

[56] For example, when a Labuan bank is investing in a BBB- rated securitisation tranche and subsequently hedges the investment using a guarantee with an eligible guarantor under the framework, the rating-based risk weight for the securitisation tranche shall be disapplied and the CRM treatment shall be used instead. However, if the CRM provider is ineligible under the framework, the Islamic bank shall fall back to the rating-based capital treatment.

underlying project, average financing-to-value ratio; and industry and geographic diversification. For re-securitisations, Labuan banks should have information not only on the underlying securitisation tranches, such as the issuer name and credit quality, but also on the characteristics and performance of the pools underlying the securitisation tranches.

F.3.2 TREATMENT OF ON-BALANCE SHEET SECURITISATION EXPOSURES

6.10 The risk-weighted asset amount of an on-balance sheet securitisation exposure is computed by multiplying the amount of the securitisation exposure by the appropriate risk weight provided in the tables "Securitisations" and "Securitisations (Short term ratings)" in **Appendix I**.

6.11 Originating banking institutions that retain their own-originated securitisation positions rated below investment grade must apply a 1250% risk weight on all of such exposures. Holdings of non-investment grade securitisation exposures, however, will not be subject to the 1250% risk weight if the originating banking institution does not also retain the first loss position (in whole or in part) of its own securitisation. In this case, the corresponding risk weight as provided in the tables mentioned in paragraph 6.10 shall be used.

6.12 The 1250% risk weighting imposed on unrated securitisation exposures, as indicated in **Appendix I** will not apply in the following circumstances:

A. Unrated most senior securitisation exposures

Where a Labuan bank that holds or guarantees the most senior exposure in a traditional or synthetic securitisation applies the 'look-through' approach in determining the average risk weight of the underlying exposure, the unrated exposures should be subject to the average risk weight[57]. However, if the

[57] Labuan banks must be able to demonstrate that the composition of the underlying pool and the relevant risk weight of each individual exposure within the pool are quantifiable at all times.

resulting weighted average risk weight is higher than the risk weight of the securitisation exposure below it, then the risk weight of the latter shall apply.

B. Unrated securitisation exposures in a second loss or better position under an ABCP programme

Unrated securitisation exposures held by a Labuan bank to an ABCP programme will be subject to a risk weight which is the higher of 100% or the highest risk weight assigned to any of the underlying individual exposures covered by the facility, subject to the following requirements:

(i) the exposure is economically in a second loss position or better and the first loss position provides significant credit protection[58] to the second loss position;

(ii) the associated credit risk is the equivalent of investment grade or better[59]; and

(iii) the Labuan bank holding such unrated securitisation exposure does not also retain the first loss position in the ABCP program.

F.3.3 TREATMENT OF OFF-BALANCE SHEET SECURITISATION EXPOSURES

6.13 Off-balance sheet securitisation exposures must be translated into an on-balance sheet exposure equivalent amount by multiplying the exposure with a credit conversion factor (CCF). The resulting amount is then weighted according to the relevant risk weights.

6.14 The CCFs, which are determined based on whether the off-balance sheet securitisation exposure qualifies as an 'eligible liquidity facility', an 'eligible servicer cash advance facility' or 'eligible underwriting facility' according to the eligibility criteria specified in Part F.4.3, are as follows:

[58] As may be demonstrated by models and simulation techniques.
[59] As may be evidenced by an indicative rating provided by an internal model.

	CCF	Risk Weight
Treatment of eligible liquidity facilities		
(a) Externally rated eligible liquidity facility that meets the operational requirements in paragraph 6.9 and the requirements for use of external rating in Part F.3.1.	100%	Rating-based risk weight in **Appendix I**.
(b) Non-externally rated eligible liquidity facility with an original maturity of more than 1 year.	50%	Highest risk weight assigned to any of the underlying individual exposures covered by the facility.
(c) Non-externally rated eligible liquidity facility with an original maturity of 1 year or less.	20%	
Treatment of eligible servicer cash advance facilities		
(a) Eligible servicer cash advance facility that meets the operational requirements in paragraph 6.48.	0%	Not applicable
Treatment of eligible underwriting facility		
(a) Eligible underwriting facility that meets the operational requirements in paragraph 6.49.	50%	Highest risk weight assigned to any tranche of the securitization exposure underwritten
Others		
(a) All other off-balance sheet securitisation exposures (including ineligible facilities), unless otherwise specified by Labuan FSA.	100%	Highest risk weight assigned to any tranche of the securitization exposure

F.3.4 TREATMENT OF OVERLAPPING EXPOSURES

6.15 A Labuan bank may provide several types of facilities (e.g. provision of a liquidity facility and a credit enhancement) in a securitisation transaction that can be drawn under various terms and conditions which may overlap with each other. Under circumstances where there is an explicit limit on the draw of more than one facility at a time for the overlapping exposure, capital should be provided as though the

institution had only provided one facility for the overlapping exposures[60]. If the overlapping facilities are subject to different capital treatments, the treatment that results in the highest capital charge should be applied on the overlapping portion.

6.16 The treatment above does not apply in cases where the overlapping facilities are provided by two different Labuan banks and capital is allocated by each individual institution.

F.3.5 TREATMENT OF COUNTERPARTY CREDIT RISK FOR SECURITISATION EXPOSURES

6.17 When an interest/profit rate or currency swap is provided to a securitisation transaction and where the counterparty is an SPV, the credit equivalent amount is computed based on the current exposure method specified in **Appendix VIII**. The highest risk weight of the underlying assets in the pool shall be applied to the resultant exposure amount in determining the counterparty credit risk.

F.3.6 TREATMENT OF SECURITISATION OF REVOLVING UNDERLYING EXPOSURES WITH EARLY AMORTISATION PROVISIONS

6.18 Early amortisation provisions are mechanisms that, once triggered, allow investors to be paid out prior to the maturity of the securities subject to the terms of the securitisation transaction. Generally, early amortisations are triggered based upon the performance or selected risk indicators of the underlying exposures, such as the excess spread level. The existence of an early amortisation feature[61] in a securitisation transaction exposes an originating banking institution to liquidity risk

[60] For example, if a Labuan bank provides a credit enhancement covering 10% of the underlying asset pool in an ABCP programme and a liquidity facility covering 100% of the same underlying asset pool, the Labuan bank would be required to hold capital against 10% of the underlying asset pool for the credit enhancement it is providing and 90% of the liquidity facility provided to the underlying asset pool. Effectively, the overlapping portion between the credit enhancement portion and the liquidity facility portion would be subject to a capital treatment which results in the highest capital charges.

[61] A clean-up call feature is distinguished from an early amortisation feature in the Guidelines, where a clean-up call is exercised only under the conditions specified in paragraph 6.41. This supports the differentiated capital treatment for early amortisation and clean-up call features.

if the securities issued are required to be prepaid early, for example where there is a significant reliance on securitisation to meet funding requirements.

6.19 Accordingly, originating banking institutions must hold capital against the risk exposure arising from the securitisation of revolving underlying exposures that contains an early amortisation feature. The specific capital treatment varies according to the type of early amortisation provision (i.e. controlled or non-controlled early amortisation) and type of underlying securitised exposures (i.e. committed or non-committed and retail or non- retail) as detailed below.

6.20 An originating banking institution is required to hold capital against all or a portion of the investors' interest (i.e. against both the drawn and undrawn balances related to the securitised exposures) when it sells revolving exposures into a structure that contains an early amortisation feature in the following manner:

Capital requirement for originating banking institutions
= (Investors' interest) x CCF x (Risk weight of underlying exposures)

6.21 The total capital charge for all of its positions will be subject to a maximum capital requirement equal to the greater of:

(a) the capital required for retained securitisation exposures; or

(b) the capital requirement that would apply had the exposures not been securitised.

6.22 The specific credit conversion factors (CCFs) to be applied depend upon whether the early amortisation repays investors through a controlled or non-controlled mechanism.

6.23 For the purpose of the Securitisation Framework, a controlled early amortisation provision must meet all of the following conditions:

(a) an appropriate capital or liquidity plan is in place to ensure that sufficient capital and liquidity is available in the event of an early amortisation;

(b) interest, principal, expenses, losses and recoveries are shared on a pro-rata basis according to the Labuan bank's and investors' relative shares of the receivables outstanding at the beginning of each month. The same pro-rata share should be applied throughout the duration of the transaction, including the amortisation period;

(c) a period for amortisation has been set, which should be sufficient for at least 90% of the total debt outstanding at the beginning of the early amortisation period to have been repaid or recognised as in default; and

(d) the pace of repayment should not be any more rapid than would be allowed by straight-line amortisation over the period set out in criterion (c).

6.24 An early amortisation provision that does not satisfy the conditions above will be treated as a non-controlled early amortisation.

6.25 The CCFs to be applied depends on whether the securitised exposures are uncommitted retail credit lines (e.g. credit card receivables) or other credit lines (e.g. revolving corporate facilities). A credit line is considered uncommitted if it is unconditionally cancellable without prior notice.

6.26 The capital requirement outlined in Part F.3.6 does not apply under the following circumstances:

(a) where the securitisation transaction includes a replenishment structure under which the replenished exposures are not revolving in nature and the early amortisation ends the ability of the originating banking institution to add new exposures;

(b) where the transaction has features that mirror a term structure (i.e. where the risk on the underlying exposures does not return to the originating bank);

(c) a structure where investors remain fully exposed to future drawings by borrowers in respect of the revolving underlying exposures even after an early amortisation event has occurred; and

(d) the early amortisation clause is solely triggered by events not related to the performance of the securitised assets or the originating banking institution, such as material changes in tax laws or regulations.

Determination of CCFs for controlled early amortisation features

Uncommitted retail exposures

6.27 For uncommitted retail credit lines (e.g. credit card receivables) in securitisations containing controlled early amortisation features, Labuan banks must compare the three-month average excess spread to the point at which the originating banking institution is required to trap excess spread as stipulated under the terms of the securitisation structure (i.e. excess spread trapping point).

6.28 In cases where such a transaction does not require excess spread to be trapped, the trapping point is deemed to be 4.5 percentage points.

6.29 Labuan banks must divide the excess spread level by the transaction's excess spread trapping point, to determine the appropriate segments and apply the corresponding CCF, as outlined in the following table.

Controlled early amortisation features

	Uncommitted		Committed
Retail credit lines	**3-month average excess spread Credit Conversion Factor (CCF)**		90% CCF
	133.33% of trapping point or more	0% CCF	
	less than 133.33% to 100% of trapping point	1% CCF	
	less than 100% to 75% of trapping point	2% CCF	
	less than 75% to 50% of trapping point	10% CCF	
	less than 50% to 25% of trapping point	20% CCF	
	less than 25% of trapping point	40% CCF	
Non-retail credit lines	90% CCF		90% CCF

Other exposures

6.30 All other securitised revolving exposures (i.e. those that are committed and all non-retail exposures) with controlled early amortisation features will be subject to a CCF of 90% against the off-balance sheet exposures.

Determination of CCFs for non-controlled early amortisation features

6.31 Early amortisation features that do not satisfy the definition of a controlled early amortisation will be considered non-controlled and treated as follows:

Uncommitted retail exposures

6.32 For uncommitted retail credit lines (e.g. credit card receivables) in securitisations containing non-controlled early amortisation features, Labuan banks must compare the three-month average excess spread to the point at which the Labuan bank is required to trap excess spread under the terms of the securitisation structure (i.e. excess spread trapping point). In cases where such a transaction does not require excess spread to be trapped, the trapping point is deemed to be 4.5 percentage points. The excess spread level shall be divided by the transaction's excess spread

trapping point to determine the appropriate segments and apply the corresponding credit conversion factors, as outlined in the following table.

Non-controlled early amortisation features

<table>
<tr><th></th><th colspan="2">Uncommitted</th><th>Committed</th></tr>
<tr><td rowspan="6">Retail credit lines</td><td colspan="2">3-month average excess spread Credit Conversion Factor (CCF)</td><td rowspan="5">100% CCF</td></tr>
<tr><td>133.33% of trapping point or more</td><td>0% CCF</td></tr>
<tr><td>less than 133.33% to 100% of trapping point</td><td>5% CCF</td></tr>
<tr><td>less than 100% to 75% of trapping point</td><td>15% CCF</td></tr>
<tr><td>less than 75% to 50% of trapping point</td><td>50% CCF</td></tr>
<tr><td>less than 50% of trapping point</td><td>100% CCF</td></tr>
<tr><td>Non-retail credit lines</td><td colspan="2">100% CCF</td><td>100% CCF</td></tr>
</table>

Other exposures

6.33 All other securitised revolving exposures (i.e. those that are committed and all non-retail exposures) with non-controlled early amortisation features will be subject to a CCF of 100% against the off-balance sheet exposures.

Pools comprising both revolving and term exposures

6.34 For securitisation structures wherein the underlying pool comprises both revolving and term exposures, the originating banking institution must apply the relevant early amortisation treatment to that portion of the underlying pool containing revolving exposures.

F.3.7 TREATMENT OF CREDIT RISK MITIGATION FOR SECURITISATION EXPOSURES

6.35 The requirements outlined in this section provide the treatment for Labuan banks that:

(a) obtain credit risk mitigants such as guarantees, credit derivatives, collateral and on-balance sheet netting to cover the credit risk of a securitisation exposure (e.g. an asset-backed securities tranche); and

(b) provide such credit risk mitigation to a securitisation exposure.

6.36 When a Labuan bank other than an originating banking institution provides credit protection to a securitisation exposure, it must calculate the capital requirement on the covered exposure as if it were an investor in that securitisation. For example, if protection is provided to an unrated first loss position, a risk weight of 1250% shall be applied accordingly to such credit protection.

Guarantees

6.37 Where guarantees are provided by eligible entities[62], Labuan banks may take into account such credit protection in calculating capital requirements for their securitisation exposures in accordance to CRM treatments specified in paragraphs 50.1 to 50.18 of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*.

Eligible collateral

6.38 Eligible collateral is limited to those recognised under paragraphs 48.1 to 48.12 of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*, including collateral that may be pledged by an SPV.

[62] Eligible guarantors are defined in paragraph 50.6 of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*. Labuan banks may not recognise SPVs as eligible guarantors in the securitisation framework.

Maturity mismatches

6.39 Where a maturity mismatch exists in any credit risk mitigation for securitisation exposures, the capital requirement for the maturity mismatch as outlined in paragraphs 47.1 to 47.5 of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)* shall be applied. When the exposures being hedged have different maturities, the longest maturity must be used.

F.4 OTHER OPERATIONAL REQUIREMENTS

F.4.1 OPERATIONAL REQUIREMENTS AND TREATMENT OF CLEAN-UP CALLS

6.40 Certain securitisation transactions may incorporate a clean-up call feature. A clean-up call is an option that permits the securitisation exposures to be called before all of the underlying exposures or securitisation exposures have been repaid. In the case of traditional securitisation, this is generally accomplished by repurchasing the remaining securitisation exposures once the pool balance or outstanding *sukuk* have fallen below some specified level that renders the securitisation uneconomical to continue.

6.41 In general, originating banking institutions are not required to set aside regulatory capital for the existence of a clean-up call, provided that all the following conditions are fully met:

(i) the exercise of the clean-up call is not mandatory, in form or in substance, but rather is at the sole discretion of the originating banking institution;

(ii) the clean-up call is not structured to avoid allocating losses to credit enhancements or positions held by investors, or otherwise structured to provide a credit enhancement; and

(iii) the clean-up call is only exercisable when 10% or less of the original underlying portfolio or securities issued remains.

6.42 For clean-up call that does not meet all of the requirements above, hereinafter referred to as 'non-eligible clean-up call', the underlying exposures must be treated as if the exposures were not securitised. Labuan Islamic banking institutions must not recognise any gain-on-sale as regulatory capital.

F.4.2 TREATMENT FOR IMPLICIT SUPPORT

6.43 Implicit support arises when a Labuan bank provides support to a securitisation beyond its predetermined contractual obligations. This implicit support increases market expectations that the Labuan banking institution might continue to provide future support to the securitisation, thereby understating the degree of risk transfer and the required level of regulatory capital by the Labuan banking institution.

6.44 Examples of implicit support include the purchase of deteriorating credit risk exposures from the underlying pool, the sale of discounted credit risk exposures into the pool of securitised credit risk exposures, the purchase of underlying exposures at above market price or an increase in the first loss position according to the deterioration of the underlying exposures.

6.45 Banking institutions should disclose to Labuan FSA the nature of implicit support extended to a securitisation transaction. Where such implicit support is extended, the banking institution would be required to:

(i) hold capital against all of the exposures associated with the securitisation transaction as if the exposures had not been securitised or as if the transaction did not benefit from any credit protection (in the case of synthetic securitisation);

(ii) deduct in the calculation of CET1 Capital any income in equity capital resulting from a securitisation transaction, such as that associated with expected future margin income resulting in a gain-on-sale; and

(iii) disclose in the financial statement the details of the implicit support and its capital impact.

6.46 Banking institutions should disclose to Labuan FSA the nature of implicit support extended to a securitisation transaction. Where such implicit support is extended, the banking institution would be required to:

F.4.3 ELIGIBLE OFF-BALANCE SHEET SECURITISATION EXPOSURES

Eligible Liquidity Facilities

6.47 An off-balance sheet securitisation exposure can be classified as an eligible liquidity facility, if the following conditions are met:

(i) The facility documentation must clearly identify and limit the circumstances under which it may be drawn. Draws under the facility must be limited to the amount that is likely to be repaid fully from the liquidation of the underlying exposures and any credit enhancements provided by parties other than the banking institution providing the liquidity facility. In addition, the facility must not cover any losses incurred in the underlying pool of exposures prior to a draw, or be structured such that draw-down is certain (as indicated by regular or continuous draws);

(ii) The facility must be subject to an asset quality test that precludes it from being drawn to cover credit risk exposures that are in default as defined in **Appendix V**. In addition, if the exposures that a liquidity facility is required to fund are externally rated securities, the facility can only be used to fund such securities that are rated at least investment grade at the time of funding;

(iii) The facility cannot be drawn after all applicable (e.g. transaction-specific and programme-wide) credit enhancements from which the liquidity would benefit have been exhausted; and

(iv) Repayment of draws on the facility (e.g. cash flow generated from underlying assets acquired by the SPV) must not be subordinated to any interests of any note holder in the programme (e.g. ABCP programme) or subject to any deferral or waiver.

Eligible Servicer Cash Advance Facilities

6.48 Undrawn cash advances extended by a banking institution acting as a servicer of a securitisation, to facilitate an uninterrupted flow of payments to investors, can be classified as an eligible servicer cash advance facility, if the following conditions are met:

(i) the provision of such facilities must be contracted;

(ii) the undrawn cash advances or facilities must be unconditionally cancellable at the discretion of the servicer banking institution without prior notice;

(iii) the servicer is entitled to full reimbursement and this right is senior to other claims on cash flows from the underlying pool of exposures; and

(iv) such cash advances should not act as a credit enhancement to the securitisation.

Eligible Underwriting Facilities

6.49 An off-balance sheet securitisation exposure can be classified as an eligible underwriting facility, if the following conditions are met:

(i) the underwriting facility must be clearly documented with the specified amount and time period of the facility stipulated. The facility should be separated from any other facility provided by the banking institution;

(ii) the facility is cancellable at the discretion of the banking institution within a reasonable period of notice; and

(iii) a market exists for the type of underwritten securities.

Labuan Financial Services Authority
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APPENDICES

Appendix I Risk Weights and Rating Categories

Securitisations

Rating Category	S&P	Moody's	Fitch	R&I	RAM	MARC	Risk weight
1	AAA to AA-	Aaa to Aa3	AAA to AA-	AAA to AA-	AAA to AA3	AAA to AA-	20%
2	A+ to A-	A1 to A3	A+ to A-	A+ to A-	A1 to A3	A+ to A-	50%
3	BBB+ to BBB-	Baa1 to Baa3	BBB+ to BBB-	BBB+ to BBB-	BBB1 to BBB3	BBB+ to BBB-	100%
4	BB+ to BB-	Ba1 to Ba3	BB+ to BB-	BB+ to BB-	BB1 to BB3	BB+ to BB-	350%
5	B+ and below	B1 and below	B+ and below	B+ and below	B1 and below	B+ and below	1250%
Unrated							1250%

Securitisations (Short term ratings)

Rating Category	S&P	Moody's	Fitch	R&I	RAM	MARC	Risk weight
1	A-1	P-1	F1+, F1	a-1+, a-1	P-1	MARC-1	20%
2	A-2	P-2	F2	a-2	P-2	MARC-2	50%
3	A-3	P-3	F3	a-3	P-3	MARC-3	100%
4	Others or unrated	Others or unrated	Others or unrated	b, c	NP	MARC-4	1250%

For the risk weights in the tables "Securitisations" and "Securitisations (Short term ratings)" to be eligible for use under this Guidelines, Labuan banks should ensure that external ratings produced by external credit assessment institutions (ECAIs) meet the operational requirements outlined in Part F.3.1.

Appendix II Counterparty Credit Risk and Current Exposure Method

Counterparty Credit Risk

1. Counterparty Credit Risk (CCR) is the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. An economic loss would occur if the transactions or portfolio of transactions with the counterparty has a positive economic value at the time of default. Unlike a firm's exposure to credit risk through a financing, where the exposure to credit risk is unilateral and only the financier faces the risk of loss, CCR creates a bilateral risk of loss: the market value of the transaction can be positive or negative to either counterparty to the transaction. The market value is uncertain and can vary over time with the movement of underlying market factors.

2. The method for computing the exposure amount under the standardised approach for credit risk described in this appendix is applicable to over-the-counter (OTC) derivatives as well as to the securities financing transactions (SFTs). Such positions or transactions would generally exhibit the following characteristics:

   (i) Undertaken with an identified counterparty against which a unique probability of default can be determined.

   (ii) Generate an exchange of payments or an exchange of a financial instrument (including commodities) against payment.

   (iii) Generate a current exposure or market value.

   (iv) Have an associated random future market value based on market variables.

3. Other common characteristics of these transactions may include the following:

   (i) Short-term financing may be a primary objective in that the transactions mostly consist of an exchange of one asset for another (cash or securities) for a relatively short period of time, usually for the business purpose of financing. The two sides of the transactions are not the result of separate decisions but form an invisible whole to accomplish a defined objective.

(ii) Positions are frequently valued (most commonly on a daily basis), according to market variables.

(iii) Uses of credit risk mitigant such as collateralisation[63], netting and re-margining to mitigate risk.

4. An exposure value (or EAD) of zero for counterparty credit risk can be attributed to derivative contracts or SFTs that are outstanding with a central counterparty (for example a clearing house). This does not apply to counterparty credit risk exposures from derivative transactions and SFTs that have been rejected by the central counterparty. Furthermore, an exposure value (EAD) of zero can be attributed to Labuan banks' credit risk exposures[64] to central counterparties that result from the derivative transactions, SFTs or spot transactions that the bank has outstanding with the central counterparty. Assets held by a central counterparty as a custodian on the Labuan bank's behalf would not be subject to a capital requirement for counterparty credit risk exposures.

5. A central counterparty is 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. In order to qualify for the above exemptions, the central counterparty CCR exposures with all participants in its arrangements must be fully collateralised on a daily basis, thereby providing protection for the central counterparty's CCR exposures.

6. When a Labuan bank purchases credit derivative protection against a banking book exposure, or against a counterparty credit risk exposure, it will determine its capital requirement for the hedged exposure subject to the criteria and general rules for the recognition of credit derivatives as per the substitution rules in *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*. Where this rule applies, the exposure amount for counterparty credit risk from such transactions is zero.

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[63] Collateralisation may be inherent in the nature of some transactions.
[64] Example, from clearing deposits and collateral posted with the central counterparty.

7. The exposure amount for counterparty credit risk is zero for sold credit default swaps in the banking book where the exposures are treated in the guidelines as a guarantee provided by the Labuan bank and subject to a credit risk charge based on the full notional amount.

8. Under the current exposure method, the exposure amount for a given counterparty is equal to the sum of the exposure amounts calculated for each netting set[65] with that counterparty.

The Current Exposure Method

9. The current exposure method is to be applied to OTC derivative positions only, to determine the credit equivalent amount (or EAD) for these transactions for purposes of the capital adequacy calculation. SFTs (which include transactions such as security financing and borrowing and margin financing transactions, where the value of the transactions depends on market valuations and the transactions are often subject to margin agreements), shall be subject to the treatment set out under *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*;

10. For the OTC derivatives contracts Labuan banks are not exposed to credit risk for the full face value of the derivatives contracts, but only to the potential cost of replacing the cash-flow if the counterparty defaults. As such, the credit equivalent amount will depend, inter alia, on the maturity of the contract and on the volatility of the rates underlying that type of instrument.

11. Under the current exposure method, the computation of the credit equivalent

[65] A netting set is a group of transactions with a single counterparty that are subject to a legally enforceable bilateral netting arrangement and for which netting is recognised for regulatory capital purposes under the provisions of paragraphs 19 to 24 of this appendix and Part F of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*. Each transaction not subject to a legally enforceable bilateral netting arrangement that is recognised for regulatory capital purposes should be treated as its own netting set (separate from those whose bilateral netting arrangement is recognised for regulatory capital purposes).

exposure for derivatives contracts is based on the summation of the following two elements :

(i) The replacement costs (obtained by marking-to-market) of all contracts with positive value (zero for contracts with negative replacement costs); and

(ii) The amount of potential future exposure is calculated by multiplying the notional value of each contract by an "add-on" factor.

Credit exposure = positive MTM + (NP x "add-on" factor (%))

Where:

MTM = Mark-to-Market

NP = Notional principal

Add-on factor = As per **Appendix IIb**

(An illustration of the calculation under the current exposure method is given in **Appendix IIa**)

12. The "add-on" factors in computing the potential future exposure is determined based on the type of exposure and the residual maturity of each contracts. The "add-on" factors for derivatives contracts are listed in **Appendix IIb**.

13. The credit equivalent amounts of exchange rate and interest/profit rate contracts are to be risk-weighted according to the category of the counterparty, including the use of concessionary weightings in respect of exposures backed by eligible guarantees and collateral. Nevertheless, Labuan FSA reserves the right to raise the risk weights if the average credit quality deteriorates or if loss experience increases.

14. Labuan banks can obtain capital relief for collateral eligible as defined under the comprehensive approach of the *Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)* subject to the same operational requirements.

15. The calculation of the exposure for an individual contract for a collateralised OTC derivatives transaction[66] will be as follows:

Credit exposure= positive MTM + (NP x "add-on factor"(%))- CA

Where:

MTM	= Mark-to-Market
NP	= Notional principal
Add-on factor	= As per **Appendix IIb**
CA	= Volatility-adjusted collateral amount under the comprehensive approach

16. When effective bilateral netting contracts are in place in a collateralised OTC derivative transaction, MTM will be the net replacement cost and the add-on will be A_{Net} as calculated above. The haircut for currency risk (H_{FX}) should be applied when there is a mismatch between the collateral currency and the settlement currency. Even in the case where there are more than two currencies involved in the exposure, collateral and settlement currency, a single haircut assuming a 10-business day holding period scaled up as necessary depending on the frequency of mark-to-market will be applied.

17. Counterparty credit risk exposure amount for single name credit derivative transactions in the trading book will be calculated using the potential future exposure "add-on" factors set out in the market risk component of this Guidelines.

18. Where a credit derivative is an N^{th} to default transaction (such as a first to default transaction) the treatment specified in market risk component of this Guidelines applies.

[66] For example, collateralised interest/profit rate swap transactions.

Bilateral Netting

19. Bilateral netting involves weighting of the net rather than the gross claims with the same counterparties arising out of the full range of forwards, swaps, options and similar derivative contracts. Careful consideration needs to be given to ensure that there is no reduction in counterparty risk, especially in cases if a liquidator of a failed counterparty has (or may have) the right to unbundle netted contracts, demanding performance on those contracts favourable to the failed counterparty and defaulting on unfavourable contracts.

20. Therefore, for capital adequacy purposes, bilateral netting[67] may be conducted only under the following circumstances:

    (i) Labuan banks may net transactions subject to novation under which any obligation between a Labuan bank and its counterparty to deliver a given currency on a given value date is automatically amalgamated with all other obligations for the same currency and value date, legally substituting one single amount for the previous gross obligations; or

    (ii) Labuan bank may also net transactions subject to any legally valid form of bilateral netting not covered above, including other forms of novation.

21. In both cases above, a Labuan bank will need to satisfy Labuan FSA that it has:

    (i) A netting contract or agreement with the counterparty which creates a single legal obligation, covering all included transactions, such that the bank would have either a claim to receive or obligation to pay only the net sum of the positive and negative mark to market values of included individual transactions in the event a counterparty fails to perform due to any of the following: default, bankruptcy, liquidation or similar circumstances;

    (ii) Written and reasoned legal opinions that, in the event of a legal challenge, the relevant courts and administrative authorities would find the Labuan bank's

[67] Payments netting, which is designed to reduce the operational costs of daily settlements, will not be recognised in this Guidelines since the counterparty's gross obligations are not in any way affected.

exposure to be such a net amount under:

(a) The law of the jurisdiction in which the counterparty is chartered and, if the foreign branch of a counterparty is involved, then also under the law of the jurisdiction in which the branch is located;

(b) The law that governs the individual transactions; and

(c) The law that governs any contract or agreement necessary to effect the netting.

Labuan FSA will have to be satisfied that the netting is enforceable under the laws of each of the relevant jurisdictions[68],

(iii) Procedures in place to ensure that the legal characteristics of netting arrangements are kept under review in the light of possible changes in relevant law.

22. Contracts containing walkaway clauses will not be eligible for netting for the purpose of calculating capital requirements. A walkaway clause is a provision which permits a non defaulting counterparty to make only limited payments or no payment at all to the estate of a defaulter, even if the defaulter is a net creditor.

23. Credit exposure on bilaterally netted forward transactions will be calculated as the sum of the net mark to market replacement cost, if positive, plus an "add-on" based on the notional underlying principal. The "add-on" for netted transactions (ANet) will equal the weighted average of the gross "add-on" (AGross)[69] and the gross "add-on" adjusted by the ratio of net current replacement cost to gross current replacement cost (NGR). This is expressed through the following formula:

[68] If Labuan FSA and other national supervisors are dissatisfied about the enforceability under the laws, the netting contract or agreement will not meet this condition and neither counterparty could obtain supervisory benefit.

[69] A Gross equals the sum of individual add on amounts (calculated by multiplying the notional principal amount by the appropriate add on factors set out in paragraph 11 of this appendix) of all transactions subject to legally enforceable netting agreements with one counterparty.

$$ANet = 0.4*AGross+0.6*NGR*AGross$$

Where:

NGR = level of net replacement cost/level of gross replacement cost for transactions subject to legally enforceable netting agreements[70]

24. The scale of the gross "add-ons" to apply in this formula will be the same as those for non netted transactions as set out in paragraphs 9 to 18 of this appendix. Labuan FSA will continue to review the scale of "add-ons" to make sure they are appropriate. For purposes of calculating potential future credit exposure to a netting counterparty for forward foreign exchange contracts and other similar contracts in which notional principal is equivalent to cash flows, notional principal is defined as the net receipts falling due on each value date in each currency. The reason for this is that offsetting contracts in the same currency maturing on the same date will have lower potential future exposure as well as lower current exposure.

[70] A_{gross} equals the sum of individual add-on amounts (calculated by multiplying the notional principal amount by the appropriate add-on factors)

Appendix IIa Sample Computation of the Capital Requirement and Exposure at Default (EAD) for a portfolio of Derivative Contracts

Transaction I

Type of instrument	:	8 Year Fixed-to-floating Cross Currency Interest Rate Swap (CCIRS)
Notional principal amount	:	USD1,000,000
Current date of report	:	31 December 1997
Maturity date	:	31 December 2000
Remaining maturity	:	3 years
Replacement cost	:	USD350,000 (+ve)

Transaction II

Type of instrument	:	6 Year Fixed-to-floating Interest Rate Swap (IRS)
Notional principal amount	:	USD1,000,000
Current date of report	:	31 December 1997
Maturity date	:	31 December 2002
Remaining maturity	:	5 years
Replacement cost	:	USD200,000 (-ve)

Type of instrument	CCIRS	IRS	Total
Credit equivalent exposure (exposure at default) = positive replacement cost + potential future exposure	350,000 + {1 ,000,000 x (2% + 7%)} =350,000 + 90,000 =440,000	0 + {1 ,000,000 x (4%)} = 0 + 40,000 = 40,000	480,000
Risk-weighted asset (assume risk weight of 50%)	440,000 x 50% = 220,000	40,000 x 50% = 20,000	240,000
Capital requirement (8%)	220,000 x 8% =17,600	20,000 x 8% =1,600	19,200

Appendix IIb "Add-on" Factors for Derivatives Contracts

Schedule 1

"Add-on" factors for derivative contracts with interest/profit rate exposures

Residual maturity	Factor (%)
< 14 calendar days	Nil
> 14 calendar days and < 6 months	0.10%
>6 months and < 1 year	0.25%
> I year and < 2 years	1.0%
> 2 year and < 3 years	2.0%
> 3 year and < 4 years	3.0%
> 4 year and < 5 years	4.0%
> 5 year and < 6 years	5.0%
> 6 year and < 7 years	6.0%
for each additional year	add 1.0%

Schedule 2

"Add-on" factors for derivative contracts with foreign exchange exposures

Residual maturity	Factor (%)
< 14 calendar days	Nil
> 14 calendar days and < 6 months	1.5%
> 6 months and < 1 year	3.0%
> I year and < 2 years	5.0%
> 2 year and <3 years	7.0%
> 3 year and < 4 years	8.0%
> 4 year and < 5 years	9.0%
> 5 year and <6 years	10.0%
> 6 year and < 10 years	11.0%
> 10 years	12.0%

Schedule 3

"Add-on" factors for other types of contracts

	Gold	Equities	Precious Metals Except Gold	Other Commodities
One year or less	1.0%	6.0%	7.0%	10.0%
Over one year to five years	5.0%	8.0%	7.0%	12.0%
Over five years	7.5%	10.0%	8.0%	15.0%

Notes: Forwards, swaps, purchased options and similar derivative contracts not covered by any of the columns of this matrix are to be treated as 'other commodities'

Additional notes "add-on" factors:

(i) For derivative contracts which are sensitive to movements in more than one type of rates, the "add-on" factors used will be the summation of the "add-on" factors for the various types of exposures according to the relevant residual maturity bucket;

(ii) For contracts with multiple exchanges of principal, the notional principal amount is the sum of the remaining exchanges of principal. This shall represent the amount to be multiplied with the "add-on" factors;

(iii) For both forward rate agreements and over-the-counter interest/profit rate contracts of similar nature which are settled in cash on start date, residual maturity is measured as the sum of the remaining contract period and the underlying tenor of the contract (An illustration is provided in **Appendix IIc**). Institutions may choose to apply discounts to the "add-on" factors if the remaining contract period, as a fraction of residual maturity, falls within a certain range (please refer to **Appendix IId**) for the discount factor and range of residual maturity.

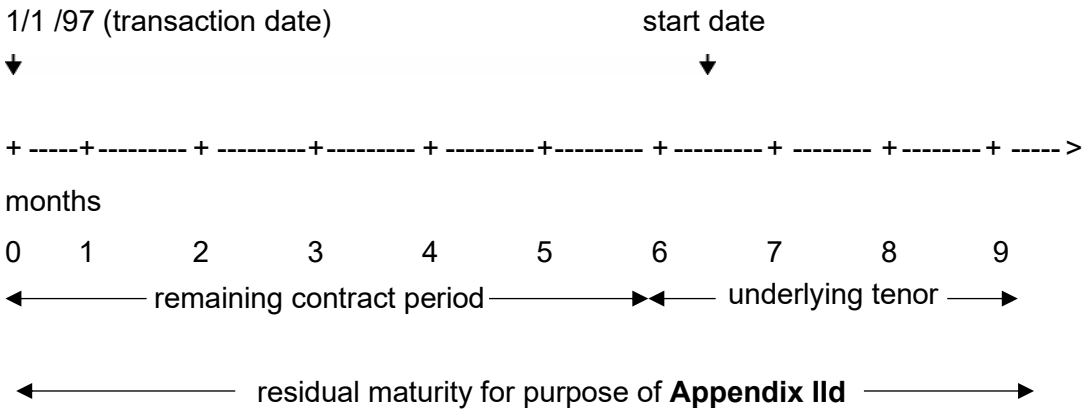
(iv) For single currency floating-to-floating interest/profit rate swaps, the "add-on" factor is zero. Thus, the credit exposure for such contracts will comprise only the positive mark-to-market value;

(v) For contracts that are structured to settle outstanding exposure following specified payment dates and where the terms are reset such that the market value of the contract is zero on these specified dates, the residual maturity would be set equal to the time until the next reset date. In the case of interest/profit rate contracts with remaining maturities of more than one year that meet the above criteria, the "add-on" factor is subject to a floor of 0.5%.

(vi) The "add-ons" should be based on effective rather than notional amounts. In the event that the stated notional amount is leveraged or enhanced by the structure of the transaction, Labuan banks must use the effective notional amount when determining potential future exposure.

Appendix IIc Example for Calculation of Residual Maturity (for Forward Rate Agreements and Over-The-Counter Interest/Profit Rate Contracts of Similar Nature which are Settled in Cash on Start Date)

A 3-month forward rate agreement for delivery in June 1997



Appendix IId Discount Factor and Range of Residual Maturity

t = Remaining contract period Residual maturity	Discount to "Add-on" Factor
t < 0.01	75%
0.01 < t < 0.05	50%
0.05 < t < 0.10	25%
0.10 < t < 0.65	no discount
0.65 < t < 0.80	25%
0.80 < t < 0.90	50%
t ≥ 0.90	75%

Appendix III Illustration of Computation of Large Exposure Risk Requirement

Scenario A

A Labuan bank holds exposures consisting of shares and in-the-money call warrants with market value amounting to USD20 million in a corporation listed on G10 stock exchange. The Labuan bank's Total Capital is currently USD500 million and the total issued paid-up capital of the corporation is USD100 million. All the exposures are held in the trading book.

Step 1

Determine the amount in excess of threshold. The LERR computation will be based on exposures to a single equity exceeding 15% of the Labuan bank's Total Capital or 10% of the issuer's paid-up capital, whichever is lower.

	LERR threshold (USD million)	**Amount within threshold (USD million)**	**Amount in excess of lowest threshold (USD million)**	**Total exposures (USD million)**
Based on Labuan bank's Total Capital	500 x 15% = 75		Not applicable.	
Based on issuer's paid-up capital	100 x 10% = 10	10	10	20

Step 2

Calculate the LERR capital charge by multiplying the market value of the equity position in excess of the threshold, with the sum of the corresponding general and specific risk weights as per the market risk component of the Guidelines. The LERR capital requirement is incurred in addition to the market risk capital charge for large exposures to a single equity.

Market risk capital charge	USD20 million x (8% + 8%)
	= USD3.2 million
LERR capital charge	USD10 million x (8% + 8%)
	= USD1.6 million

Step 3

Calculate the LERR risk-weighted asset.

LERR risk-weighted asset	USD1.6 million x 12.5
	= USD20 million

Scenario B

Labuan bank holds preference shares with market value amounting to USD80 million in an unlisted corporation. The Labuan bank's Total Capital is currently USD500 million and the total issued paid-up capital of the corporation is USD1 billion. All the exposures are held in the banking book.

Step 1

Determine the amount in excess of the lowest threshold.

	LERR threshold (USD million)	Amount within threshold (USD million)	Amount in excess of lowest threshold (USD million)	Total exposures (USD million)
Based on Labuan bank's Total Capital	500 x 15% = 75	75	5	80
Based on issuer's paid- up capital	1000 x 10% = 100	Not applicable		

Step 2

Calculate the LERR risk-weighted asset by multiplying the market value of the equity exposure (banking book position) in excess of the threshold with the corresponding risk weight, i.e.100%.

Credit risk-weighted asset	USD80 million x 100%
	=USD80 million
LERR risk-weighted asset	USD5 million x 100%
	=USD5 million

Appendix IV Capital Treatment for Sell and Buyback Agreement (SBBA)/Reverse SBBA Transactions

The capital treatment for exposures from SBBA and reverse SBBA transactions under the banking book and trading book is provided below:

SBBA	Reverse SBBA[71]
Trading book transaction	
1) Market risk in the forward purchase transaction • For cash position: a. General risk for the short cash position b. There is no specific risk charge for the cash position • For the underlying asset of the forward purchase transaction a. General risk for the underlying asset b. Specific risk for the underlying asset 2) Counterparty credit risk (as per the banking book treatment below).	1) Market risk in the forward sale transaction • General risk for the long cash position 2) Counterparty credit risk (as per the banking book treatment below)

[71] In addition to the capital charge applied here, if an arrangement that could effectively transfer the risk back to the SBBA seller is not legally binding, the SBBA buyer is required to provide for credit risk charge of the underlying asset.

SBBA	Reverse SBBA[154]
Banking book transactions	
Standardised Approach for Credit Risk	
1) Credit risk in the underlying asset in the forward purchase transaction 3) Credit RWA = Underlying asset value x CCF of forward asset purchase (i.e. 100%) x risk weight based on recognised issue / issuer rating of the asset. 2) Counterparty credit risk in the forward purchase transaction 4) Credit RWA = Credit equivalent amount (derived from the Current Exposure Method) x risk weight of counterparty. **Note:** The 'positive MTM' amount refers to the difference between the underlying asset market value and forward purchase transaction value, where the underlying asset market value **>** the forward purchase transaction value.	1) Counterparty credit risk in the forward purchase transaction 5) Credit RWA = Credit equivalent amount (derived from the Current Exposure Method) x risk weight of counterparty. **Note:** The 'positive MTM' amount refers to the difference between the underlying asset market value and forward sale transaction value, where the underlying asset market value **<** the forward sale transaction value.

The underpinning basis for the capital treatment for SBBA and reverse SBBA transactions is the risk profile of the underlying transactions i.e. outright sale/ buy contract as well as forward transactions as *waad* (promise) to buyback/ sellback. Hence, while SBBA and reverse SBBA are not securities financing transactions, the treatment prescribed for securities financing transactions (e.g. requirements on maturity and floor) is also applicable to SBBA and reverse SBBA except for treatment on credit risk mitigation [*Guidelines on Banking and Islamic Banking Capital Adequacy Framework (Credit Risk)*].

Appendix V Securitisation Framework – Definitions and General Terminology

Asset-backed commercial paper (ABCP) programme

An ABCP programme predominately issues commercial paper with an original maturity of one year or less that is backed by assets or other exposures held in a bankruptcy-remote SPV.

Asset-backed Sukūk

Risk and reward are dependent on the underlying asset.

Asset-based Sukūk

Risk and reward are dependent on the obligor that originates/issues the instrument.

Assignment

An assignment may also achieve an effective transfer of the seller's rights to the principal sum and interest, usually with the exclusion of certain obligations. However, there is potential risk that some rights may not be effectively assigned, thus resulting in the impairment of the buyer's entitlements to certain rights accrued between the borrower and the seller, such as the late payment fee, prepayment charges, late interest charges, repossession of collateral, and set-off arrangements (for example, netting of obligations). Another constraint is the restriction on the assignability of financing that may be imposed in financing agreements prohibiting any assignment to third parties without the consent of the parties to the agreement.

In the case of a legal assignment, the seller will notify the borrower that the rights to the assets are being assigned to the buyer. This notification will ensure that the buyer's rights are not impaired by other intervening rights, or at the minimum, the seller should provide a warranty that all rights to the principal sum and interest are being assigned and no other right exists.

In the case of an equitable assignment where notice of the transfer is not given to the borrowers (due to impracticality, etc), the SPV buyer and consequently the investors are exposed to potential legal risks (where the transfer is not perfected). For example, investors may lose priority to the holder of a legal assignment that may be created subsequently by the seller/originator. Another legal risk concerns the fact that the buyer or investor may not have direct rights against the borrower and needs to join the seller/originator in any legal action initiated against the borrower with respect to the receivables. Similarly, in cases where a borrower's obligation is offset with its deposit (that is, enforceable on-balance sheet netting), unless the SPV's claim is perfected, there is a risk that the SPV may not be entitled to the full amount due from the borrower.

Credit enhancement

A credit enhancement is a contractual arrangement in which Labuan bank retains or assumes a securitisation exposure and, in substance, provides some degree of added protection to other parties to the transaction.

Credit-enhancing interest-only strip

A credit-enhancing interest-only strip is an on-balance sheet asset that represents a valuation of cash flows related to future margin income and is subordinated.

Excess spread

Excess spread is generally defined as gross finance charge collections and other income received by the trust or SPV minus certificate interest, servicing fees, charge-offs, and other senior SPV expenses.

Future margin income (FMI)

The amount of income anticipated to be generated by the relevant exposures over a certain period of time that can reasonably be assumed to be available to cover potential credit losses on the exposures (i.e. after covering normal business expenses). FMI usually does not include income anticipated from new accounts.

Gain-on-sale

Gain-on-sale is any residual interest retained by the originating banking institution that is, an on-balance sheet asset that represents a retained beneficial interest in a securitisation accounted for as a sale, and that exposes the originating banking institution to any credit risk directly or indirectly associated with the transferred asset, that exceeds a pro rata share of that originating banking institution's claim on the asset.

Investment grade

A securitisation exposure is deemed to be of investment grade if an ECAI recognised by Labuan FSA has assigned it a rating within long-term rating categories 1 to 3, or short-term rating categories 1 to 3 (as defined in **Appendix I**).

Novation

The transfer involves a tripartite arrangement whereby the two parties to the original contract, the originator and the borrower, agree with the SPV that the SPV shall become a substitute for the originator thus assuming the originator's rights and obligations under the original contract. This method is considered the cleanest transfer. However, it may involve legal procedures and requirements such as obtaining the signature of borrowers as a party to the novation agreement effecting the transfer of assets and titles, legal fees, stamp duty, etc.

Originating Banking Institution

Labuan bank is considered to be an originator in a securitisation transaction if it meets either of the following conditions:

(i) The Labuan bank originates directly or indirectly (e.g. a Labuan bank purchases a third party financial instrument via its balance sheet or acquires credit risk through credit derivatives and subsequently sells or transfers to an SPV) the underlying exposures included in the securitisation; or

(ii) The Labuan bank serves as a sponsor of an ABCP conduit or similar programme that acquires exposures from third-party entities. In the context of such a program,

Labuan bank would generally be considered a sponsor and, in turn, an originator if it, in fact or in substance, manages or advises the programme, places securities into the market, or provides liquidity and/or credit enhancements.

Residual interest

Residual interest can take several forms such as credit-enhancing interest- only strips, spread accounts, cash collateral/reserve accounts, retained subordinated interests and other forms of over-collateralisation, accrued but uncollected interest on transferred assets (presumably in credit card securitisations) that when collected, will be available to serve in a credit-enhancing capacity. Residual interests generally do not include interests purchased from a third party other than the purchased credit-enhancing interest-only strips.

Revolving exposures

Credit exposures where the borrower is permitted to vary the drawn amount and repayments within an agreed limit under a line of credit (e.g. credit card receivables and corporate financing commitments).

Servicer

A servicer is one (typically the originating banking institution) that manages the underlying credit exposures of a securitisation on a day-to-day basis in terms of collection of principal and interest, which is then forwarded to investors in the securitisation transaction.

Special purpose vehicle (SPV)

An SPV is an entity set up for a specific purpose, the activities of which are limited to those necessary to accomplish the purpose of the SPV, and the structure of which is intended to isolate the SPV from the credit risk of an originator or seller of the exposures. SPVs are commonly used as financing vehicles in which exposures are sold to a SPV or similar entity in exchange for cash or other assets funded by debt issued by the SPV. Such SPVs are used as a conduit for risk transfer purposes in the case of synthetic securitisation.

Synthetic securitisation

A synthetic securitisation is a structure with at least two different stratified risk positions or tranches that reflect different degrees of credit risk. The structure involves the transfer of credit risk of an underlying pool of exposures by the originator, in whole or in part, using CRM tools such as credit-linked notes, credit default swaps or guarantees to hedge the credit risk of the underlying exposures. Accordingly, the investors are exposed to the risk and performance of the underlying exposures.

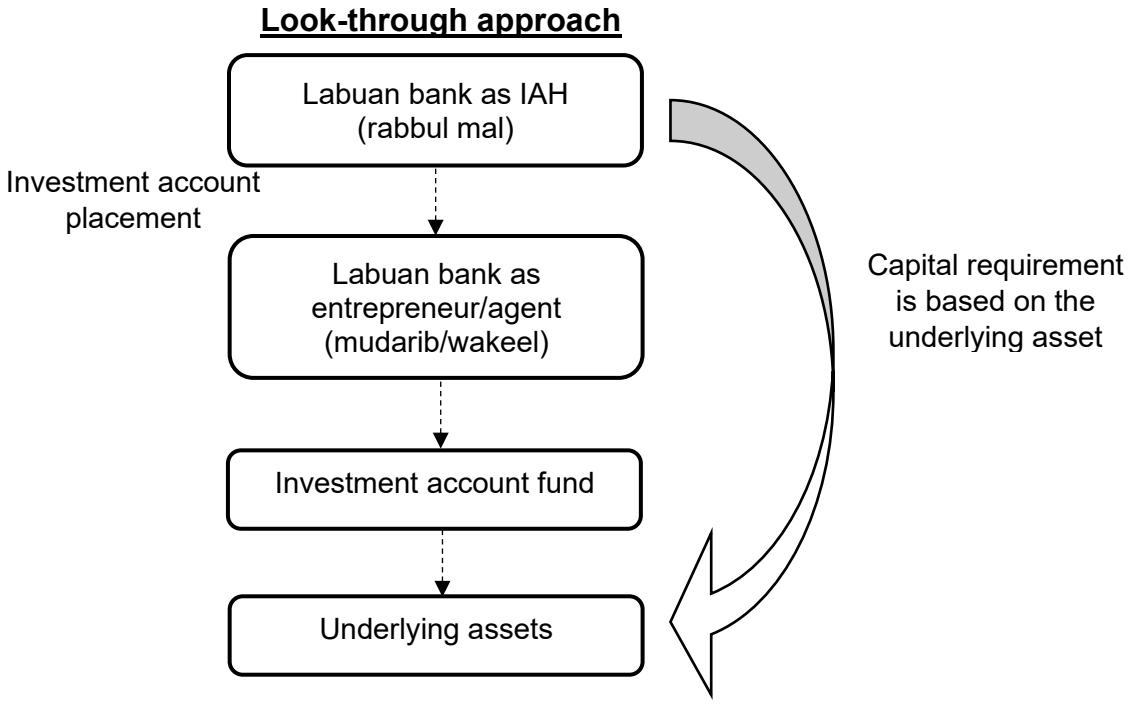
Traditional securitisation

A traditional securitisation involves a transfer of an underlying pool of exposures to a SPV which issues asset-backed securities to capital market investors. The cash flow generated from the underlying pool of exposures is used to service at least two different stratified risk positions or tranches reflecting different degrees of credit risk. Investors are exposed to the risk and performance of the specified underlying exposures rather than the performance of the originator of the underlying exposures.

Appendix VI Capital treatment for Investment Accounts

The "Look-Through" Approach (LTA)

1. The "look-through" approach refers to the calculation of credit and market risk capital requirements based on the underlying asset funded by an investment account, as illustrated below:



2. Where Labuan bank is an investment account holder (IAH), the Labuan bank shall apply the LTA only when the following conditions are met:

   (i) The financial information about the underlying asset is maintained at a sufficiently granular level to enable the calculation of the corresponding right weights[72], and

   (ii) The financial report of the investment account funds are prepared at least at the same reporting interval as that of the IAH[165].

[72] The IAH may specify the information required and time period for such disclosure in the investment account agreement with the mudarib/wakeel.

3. Under the LTA, the IAH shall calculate the credit and market risk capital requirements of the investment account as if it directly holds the underlying assets using similar approach applied by the IAH on its own assets.

Credit Risk

(i) Under the standardised approach, the IAH shall calculate the capital requirement based on the risk weight applicable to the obligor of the underlying assets.

(ii) The IAH may take into account the effect of any CRM only when the CRM used by the *mudarib/wakeel* fulfills the relevant CRM technique requirements and there is a clear and enforceable legal documentation that ensures the benefit of CRM can be effectively passed to the IAH.

Market Risk

(i) Under the standardised approach, the IAH shall apply the specific risk and general risk capital charges applicable to the underlying assets.

(ii) The IAH may offset its own position against positions arising from the underlying assets provided that the conditions specified in this Guidelines are met and that there are no obstacles to timely recoverability of funds from the *mudarib/wakeel*[73].

The alternative approach when the LTA's conditions are not met

4. When the conditions in paragraph 2 are not met, the IAH shall treat the investment account as exposure to equities.

Credit risk

For the standardised approach, apply a risk-weight of 150%.

Market risk

For the standardised approach, apply a specific risk charge of 14%, in addition to the general risk charge.

[73] Consequently the mudarib/wakeel is not allowed to recognise such position arising from the underlying assets to offset against its own positions.

Appendix VII Illustration on the treatment of underwriting exposures

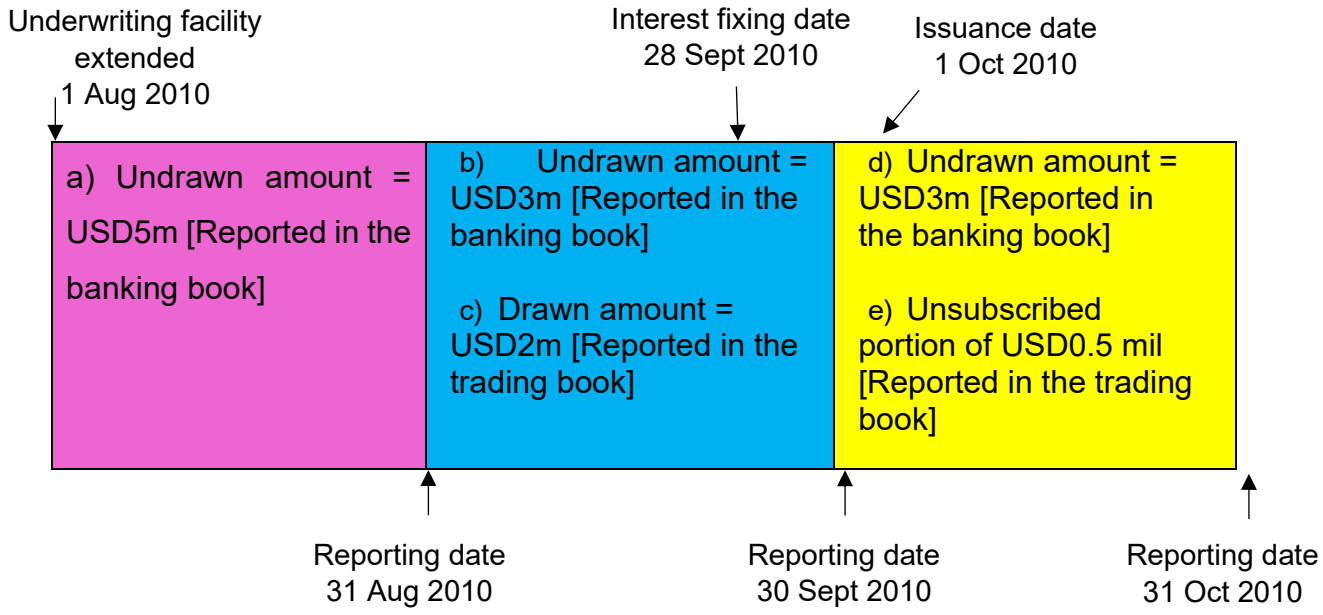
Example

Bank A (applying the Standardised Approach for Credit Risk) extends a 5-year underwriting Commercial Paper (CP) facility of USD5 million to Company ABC on 1 September 2010. On 28 September 2010, Company ABC decides to utilise the facility with a CP issuance of USD2 million.

Nominal amount of CP underwriting facility granted	USD5 million
Nominal amount of underwriting (drawn portion)	USD2 million
Rating and tenor	P1 rated CP, 3 months tenor
Date of fixing the rate (drawn portion)	28 September 2010
Date of issuance	1 October 2010

On 1 October 2010, the CP was issued where:

- USD1.5 million was subscribed; and
- USD0.5 million was unsubscribed, hence remained with Bank A.



At the reporting date 31 August 2010, where it falls between the interest fixing date and issue date:

(a) The undrawn amount is deemed as a banking book position and is subject to the credit risk capital charge

USD5m x 50% x 8%

At the reporting date 30 September 2010, where it falls between the interest fixing date and issue date:

(b) The undrawn amount is deemed as a banking book position and is subject to the credit risk capital charge

USD3m x 50% x 8%

(c) The drawn amount is deemed as a trading book position and is subject to the market risk capital charge based on the maturity and rating of the CP issued:

The general risk: USD2m x 50% x 0.2%

The specific risk: USD2m x 50% x 0.25%

At the reporting date 31 October 2010, where the CP has been issued and Bank A holds USD0.5m of the unsubscribed portion:

(d) The undrawn amount is deemed as a banking book position and is subject to the credit risk capital charge

USD3 mil x 50% x 8%

(e) The unsubscribed portion is deemed as a trading book position (with intention to sell down) and is subject to the market risk capital charge based on the maturity and rating of the CP purchased:

The general risk: USD0.5m x 0.2%

The specific risk: USD0.5m x 0.25%

Appendix VIII Treatment of Credit Derivatives in the Trading Book

The following table summarises the capital treatment for credit derivatives in the trading book[74]

Transaction	Risk Type	Protection seller	Protection buyer
Credit Default Swaps	General market risk	A long position in each premium or interest payment (each payment is treated as a zero coupon risk-free position) when there are any periodic premiums or interest payments to be received.	A short position in each premium or interest payment (each payment is treated as a zero coupon risk-free position) when there are any periodic premiums or interest payments to be paid.
	Specific risk	A position in the reference asset based on the notional amount with a maturity equal to the expiry date of the swap.	A position in the reference asset based on the notional amount with a maturity equal to the expiry date of the swap. An offset on the specific risk of the reference asset is allowed as prescribed in paragraphs 4.60 to 4.62.
First-to-Default	General market risk	A long position in each premium or interest payment (each payment is treated as a zero coupon risk-free position) when there are any	A short position in each premium or interest payment (each payment is treated as a zero coupon risk-free position) when there are any

[74] For the avoidance of doubt, banking institutions must also compute counterparty credit risk for these transactions.

		periodic premiums or interest payments to be received.	periodic premiums or interest payments to be paid
	Specific risk	A position in all the reference assets in the basket based on the notional amount with a maturity equal to the expiry date of the protection[75]. The total specific risk capital requirement is capped at the maximum payout possible under the derivative contract.	A position in all the reference assets based on the notional amount with a maturity equal to the expiry date of the protection. An offset on the specific risk of the reference asset with the lowest specific risk charge is allowed as prescribed in paragraphs 4.60 to 4.62.
Second-to-Default	General market risk	A long position in each premium or interest payment (each payment is treated as a zero coupon risk-free position) when there are any periodic premiums or interest payments to be received.	A short position in each premium or interest payment (each payment is treated as a zero coupon risk-free position) when there are any periodic premiums or interest payments to be paid.
	Specific risk	A position in all the reference assets in the basket based on the notional amount with a maturity equal to the expiry date of the protection[72], except	A position in all the reference assets based on the notional amount with a maturity equal to the expiry date of the protection.

[75] If the credit protection product has an external credit assessment from an eligible ECAI, the risk weight as specified for securitisation in Part F will be applied. If the product is not rated by an eligible ECAI, the risk weights of the assets included in the basket will be as prescribed in Appendix I.

		for the asset with the lowest specific risk charge, which can be excluded from the computation. The total specific risk capital requirement is capped at the maximum payout possible under the derivative contract.	An offset on the specific risk of the reference asset with the second lowest specific risk charge is allowed as prescribed in paragraphs 4.60 to 4.62. However, this is only recognised when first-to-default protection has also been obtained or when one of the assets within the basket has already defaulted.
Credit Linked Notes	General market risk	A long position in the note issued based on the notional amount with a maturity equal to the expiry date of the note or the date which the interest rate will be reset.	A short position in the note issued based on the notional amount with a maturity equal to the expiry date of the note or the date which the interest rate will be reset.
	Specific risk	A position in the reference asset based on the notional amount with a maturity equal to the expiry date of the note. Also, a position in the note issued based on the notional amount with a maturity equals to the expiry date of the note or the date which the	A position in the reference asset based on the notional amount with a maturity equal to expiry date of the note. An offset on the specific risk of the reference asset is allowed as prescribed in paragraphs 4.60 to 4.62.

		interest rate will be reset.	
Total Return Swaps	General market risk	A long position in the reference asset based on the notional amount with a maturity equal to the expiry date of the swap. Also, a short position in each premium or interest payment (each payment is treated as a zero coupon risk-free position) when there are any periodic premiums or interest payments to be paid.	A short position in the reference asset based on the notional amount with a maturity equal to the expiry date of the swap. Also, a long position in each premium or interest payment (each payment is treated as a zero coupon risk-free position) when there are any periodic premiums or interest payments to be received.
	Specific risk[76]	A position in the reference asset based on the notional amount with a maturity equal to the expiry date of the swap.	A position in the reference asset based on the notional amount with a maturity equal to the expiry date of the swap. An offset on the specific risk of the reference asset is allowed as prescribed in paragraphs 4.60 to 4.62.

[76] The long or short position is based on the reference asset if cash settled, or based on the deliverable asset if physical delivery.

Appendix IX Definition of Default

1. A default is considered to have occurred when:
   - The banking institution considers that an obligor is "unlikely to repay" in full its credit obligations to the banking group, without recourse by the banking institution to actions such as realising security; or
   - The obligor has breached its contractual repayment schedule and is past due for more than 90 days on any material credit obligation to the banking group.
     (i) Under national discretion, Labuan FSA has elected to apply the definition of default on obligors that are past due for more than 120 days under the Hire-Purchase Act 1967 and default for residential mortgages past due for more than 180 days.
     (ii) For securities, a default occurs immediately upon breach of contractual repayment schedule.
     (iii) For overdrafts, a default occurs when the obligor has breached the approved limits for more than 90 days.
     (iv) Where repayments are scheduled on three months or longer, a default occurs immediately upon breach of contractual repayment schedule. However, banking institutions which adopt a more stringent definition of default internally are required to apply such internal definition for regulatory capital purposes.
2. Elements to be taken as an indication of unlikeliness to repay:
   - The banking institution ceases to accrue all or partially, revenue due from a credit obligation in accordance with the terms of the contract.
   - The banking institution is uncertain about the collectability of a credit obligation which has already been recognised as revenue and then treats the uncollectible amount as an expense.
   - The banking institution makes a charge off or an account-specific provision or impairment resulting from a significant perceived decline in credit quality subsequent to the banking institution taking on the exposure. (Provisions on equity exposures set aside for price risk does not signal default).

- The banking institution sells the credit obligation at a material credit related economic loss. (For securities financing, when collateral is liquidated not due to the deterioration of an obligor's creditworthiness but due to a fall in the value of collateral to restore an agreed collateral coverage ratio and has been disclosed to the customer in writing at the inception of the facility should not be recorded as a default).
- The banking institution consents to a restructuring[77] of the credit obligation where this is likely to result in a diminished financial obligation caused by the material forgiveness, or postponement of principal, interest or (where relevant) fees. This constitutes a granting of a concession that the banking institution would not otherwise consider.
- The default of a related obligor. Banking institutions must review all related obligors in the same group to determine if that default is an indication of unlikeliness to repay by any other related obligor. Banking institutions must judge the degree of economic interdependence of the obligor towards its related entities.
- Acceleration of an obligation.
- An obligor is in significant financial difficulty. An indication could be a significant downgrade of an obligor's credit rating.
- Default by the obligor on credit obligations to other financial creditors, e.g., financial institutions or bondholders.
- The banking institution has filed for the obligor's bankruptcy or a similar order in respect of the obligor's credit obligation to the banking group.
- The obligor has sought or has been placed in bankruptcy or similar protection where this would avoid or delay repayment of the credit obligation to the banking group.

[77] Shall also include rescheduling of facilities.

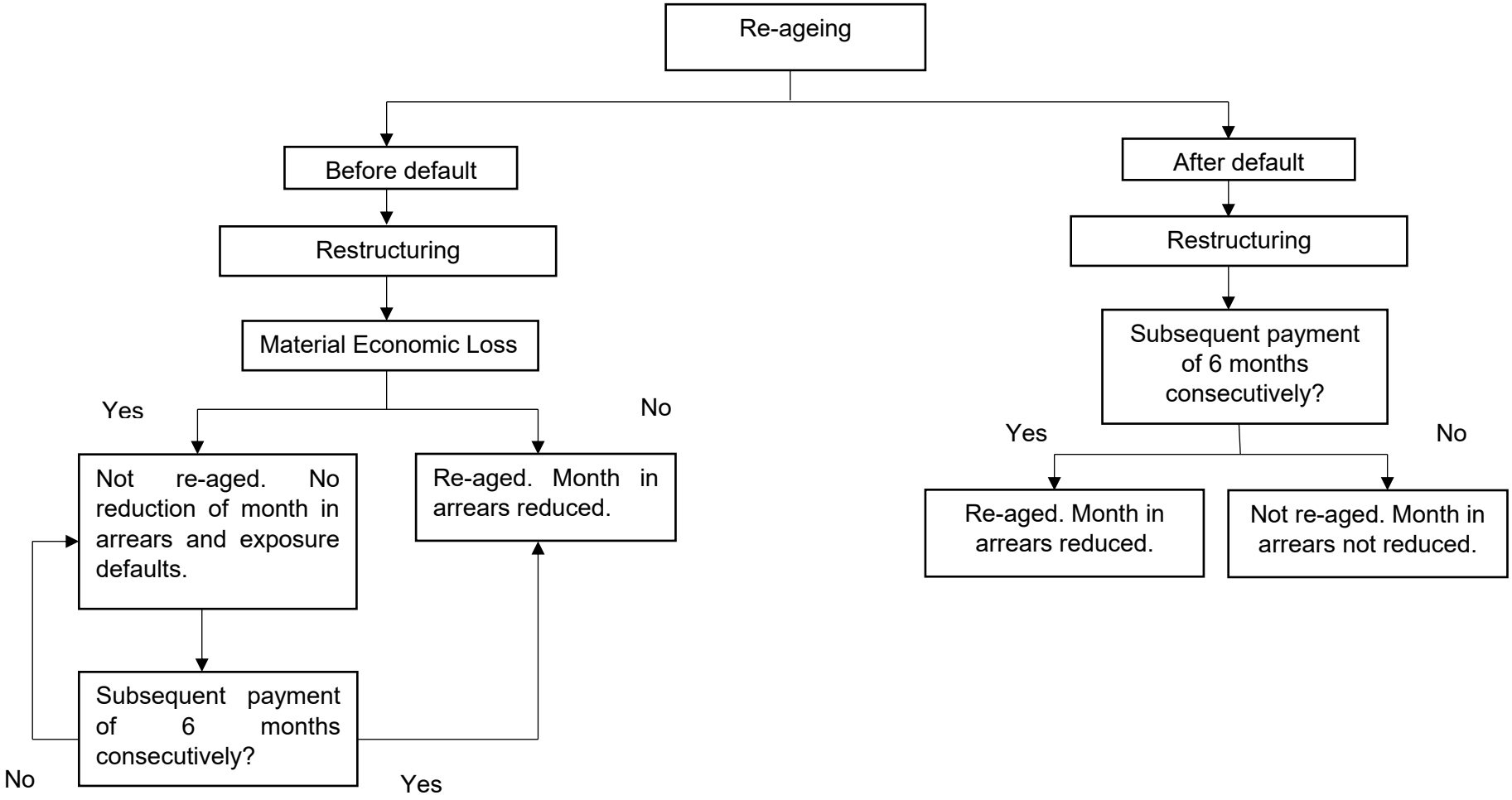
Default at Facility Level

3. For retail exposures, banking institutions are allowed to apply the definition of default at facility level, rather than at obligor level. For example, an obligor might default on a credit card obligation and not on other retail obligations. However, banking institutions should be vigilant and consider cross-default of facilities of an obligor if it is representative of his incapacity to fulfill other obligations.
4. A default by a corporate borrower shall trigger a default on all of its other exposures.

Default at Facility Level

5. Re-ageing is a process by which banking institutions adjust the delinquency status of exposures based on subsequent repayment of arrears or restructuring. This is done when all or some of the arrears under the original repayment schedule have been paid off or repackaged into a new repayment structure.
6. At a minimum, the re-ageing policy of banking institutions must include:
    - appropriate approving authority and reporting requirements;
    - minimum age of a facility before it is eligible for re-ageing;
    - delinquency levels of facilities that are eligible for re-ageing
    - maximum number of re-ageing per facility; and
    - re-assessment of the borrower's capacity to repay.
7. Re-ageing is allowed for both defaulted and delinquent exposures. However, the exposure shall not be immediately re-aged if the restructuring causes a diminished financial obligation or material economic loss or it is assessed that the borrower does not have the capacity to repay under the new repayment structure. For defaulted exposures, re-ageing is permitted after the obligation has been serviced promptly for 6 months consecutively. For exposures with repayments scheduled at three months or longer, re-ageing is only permitted after the obligation has been serviced promptly for two consecutive payments. A diagrammatic illustration of re-ageing is given in **Appendix X**.

Appendix X Diagrammatic Illustration of Re-ageing via Restructuring



Note: Loans are still subject to assessment based on these criteria even though there has been a reduction in the month in arrears or re-classification of loan from non-performing to performing under *Guidelines on the Classification and Impairments Provision for Loans/Financing for Labuan Bank*