



RESERVE BANK OF MALAWI

MARKET RISK GUIDELINES

Bank Supervision Department

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PART I- PRELIMINARY

1 MANDATE

These guidelines are issued pursuant to Section 96 of the Financial Services Act 2010 and implement Part III of the Financial Services (Capital Adequacy) Directive, 2012.

2 OBJECTIVE

The objectives of these guidelines are to:

- (a) ensure that banks with significant exposure to market risk maintain adequate capital to support that exposure; and
- (b) set out the Registrar's approach in determining the capital charge for market risk.

3 SCOPE

These guidelines address risks pertaining to interest rate related instruments and equities in the trading book and foreign exchange risk throughout the banks.

4 APPLICABILITY OF MARKET RISK CAPITAL REQUIREMENTS

The market risk capital requirement applies to all banks licensed under the Financial Services Act, 2010.

5 ELIGIBILITY

The financial instruments eligible for market risk include:

- (a) transferable securities;
- (a) units in collective investment undertakings;

- (b) certificates of deposit and other similar capital market instruments;
- (c) financial futures contracts;
- (d) forward contracts including forward rate agreements;
- (e) swaps, and
- (f) options

6 DEFINITIONS

‘Market risk’ means the risk of losses in on and off balance sheet positions arising from movements in market prices.

‘Trading book’ means positions in financial instruments held either with trading intent or in order to hedge other elements of the trading book.

‘Financial instrument’ means any 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 (and cash instruments) and derivative financial instruments.

‘Financial asset’ means 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.

‘Financial liability’ means the contractual obligation to deliver cash or another financial asset or to exchange financial liabilities under conditions that are potentially unfavourable.

‘Specific risk component’ means the risk of a price change in the underlying instrument owing to factors related to the instrument itself, the issuer of the instrument, or, in the case of a derivative, the issuer of the underlying instrument.

‘General risk component’ means the risk of a price change in the underlying instrument owing to a change in the level of interest rates or to a broad market movement.

‘Interest rate related instruments’ means all fixed-rate and floating-rate debt securities, interest rate derivatives and instruments that behave like them, including non-convertible preference shares and traded mortgage securities.

‘Interest rate derivatives’ means all derivatives contracts and off-balance-sheet instruments which react to changes in interest rates, e.g. interest rate

futures, forward rate agreements (FRAs), interest rate and cross currency swaps, interest rate options, forward foreign exchange positions, and mortgage derivative products.

‘Standardised approach’ is a methodology for measuring market risk, in which the risk weights assigned to positions are based on the positions and maturity of financial instruments held by banks. Details of the method of measurement are set out in Part A of this guideline.

‘Internal models approach’ is a methodology of measuring market risk that allows banks with the necessary systems to use their own internal risk management models to calculate market risk.

PART II - GOVERNANCE AND ELIGIBILITY OF TRADING BOOK

7 RISK MEASUREMENT FRAMEWORK

The Board and management of a bank shall ensure that it has in place adequate systems to identify, measure and manage market risks incurred in its trading book and to hold appropriate capital against those risks.

8 REPORTING FRAMEWORK

8.1 All banks must report their market risk exposures on a quarterly basis using the Market Risk Returns Schedule MWMKT 1 to 4.

8.2 A bank is required to complete the returns on both:

- (a) a solo basis, covering the positions of the banking institution's local branches; and
- (b) consolidated basis, covering the positions of the banking institution and its associates.

9 ELIGIBILITY FOR TRADING BOOK

9.1 To be eligible for trading book capital treatment, financial instruments must be free of any restrictive covenants on their tradability or be able to be hedged completely. In addition, positions should be frequently and accurately valued, and the portfolio should be actively managed.

9.2 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, and may include for example proprietary positions, positions arising from client servicing (e.g. matched principal broking) and market making.

9.3 In relation to positions eligible to receive trading book capital treatment, a bank should ensure that the following are in place:

- (a) well documented trading strategy for the position/instrument or portfolios, approved by senior management (which would include expected holding horizon);
- (b) clearly defined policies and procedures for the active management of the position, which must require that:
 - (i) positions be managed on a trading desk;
 - (ii) position limits are set and monitored for appropriateness;
 - (iii) dealers have the autonomy to enter into/manage the position within agreed limits and according to the agreed strategy;
 - (iv) positions are marked to market at least daily and when marking to model the parameters must be assessed on a daily basis;
 - (v) positions are reported to senior management as an integral part of the institution's risk management process; and
 - (vi) positions are actively monitored with reference to market information (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, sizes of positions traded in the market, etc.

- (c) clearly defined policy and procedures to monitor the positions against the bank's trading strategy (including the monitoring of turnover and stale positions (up to one year) in the bank's trading book).

9.4 A bank must have an established policy for allocating transactions (including internal deals) to the trading or non-trading (i.e. banking) book, as well as procedures to ensure compliance with such policy. There must be a clear audit trail at the time each transaction is entered into.

9.5 The Registrar will examine the adequacy of such policy and procedures and their consistent implementation. For this purpose, a bank which engage in trading activities should annually submit to the Registrar a policy statement covering:

- (a) the definition of trading activities;
- (b) the financial instruments which can be traded or used for hedging the trading book portfolios; and
- (c) the principles for transferring positions between the trading and the banking books.

9.6 A bank must ensure that there is no abusive switching between books.

9.7 The Registrar shall deem transactions to carry a trading intent on the part of the bank if:

- (a) the positions arising therefrom are marked to market on a daily basis as part of the internal risk management process;
- (b) the positions are not, or not intended to be, held to maturity; and

(c) the positions satisfy other criteria the banking institution applies on its trading portfolio.

10 MARKET RISK MEASUREMENT METHODS

10.1 There are generally two approaches to the measurement of market risk namely the Standardised Approach and the Internal Models Based Approach.

10.2 However, all banks are required to use the Standardised Approach until the Registrar advises otherwise.

PART III- MEASURING MARKET RISK

11 STANDARDISED MEASUREMENT METHOD

The standardized methodology uses a “building-block” approach in which specific risk and the general risk arising from positions in financial instruments are calculated separately.

12 INTEREST RATE RISK

12.1 The capital charges for interest rate related instruments shall apply to the current market value of items in the trading book.

12.2 The trading portfolio attracts two types of risk capital charges: specific risk and general risk charges (adjusted by horizontal and vertical disallowances).

12.3 The Market Risk Return Schedules MWMKT- Sch02, MWMKT- Sch02b in the new return provides the framework for calculating capital charge for interest rate risk.

12. SPECIFIC RISK CHARGES

12.4 Specific risk charges are designed to provide capital to cushion shocks in interest rate related instrument prices arising from factors specific to the issuer of the instrument. Such factors may undermine the liquidity of the market in the debt instrument and/or the ability of the issuer to make timely payment of interest and principal.

12.5 The specific risk charge is calculated with respect to the absolute value of a trading position. The specific risk on a long position is the risk that the price will deteriorate because of credit and/or liquidity considerations. The specific risk on a short position is the risk that the market price will appreciate because of improved credit quality of the issuer and/or liquidity of the issue.

13 TIME BANDS

13.1 A bank should allocate its trading positions into appropriate time bands in column 2, Part 1 of Market Risk Schedule 2: Interest Rate Risk according to the residual maturities of the debt securities (or the underlying securities in case of debt derivatives).

13.2 Fixed rate instruments should be allocated according to the residual term to maturity and floating-rate instruments according to the residual term to the next re-pricing date.

14 REPORTING OF LONG AND SHORT POSITIONS

14.1 A bank must report both long and short positions in debt securities and debt derivatives (e.g. bond futures and bond options) in the trading

book by category of the issuer in Market Risk Schedule 2 b: Interest Rate Risk under Part 2.

14.2 Offsetting will only be allowed between long and short positions in identical issues (including positions in derivatives) with exactly the same issuer, coupon, currency and maturity; in other words, opposite positions of the same amount in the same issues (but not different issues by the same issuer), whether actual or notional, can be offset in the interest rate maturity framework, as well as closely matched swaps, forwards, futures and Forward Rate Agreements (FRAs).

15 TREATMENT OF SECURITY

15.1 A bank must allocate the security type held in the trading book in Market Risk Schedule 2 b: Interest Rate Risk under Part 2.

15.2 A security which is the subject of a repurchase or securities lending agreement will be treated as if it were still owned by the lender of the security. Commitments to buy and sell securities should be reported as a long and a short position respectively.

16 RISK CHARGES

16.1 The risk charge applied to the trading portfolio is graduated in three broad categories as shown below:

Specific Risk Charges

Issuer/Counterparty Risk Charge

Category	Risk Charge
Malawi Government	0.00%

Qualifying category (Refer 15.3 below)	0.25% (residual term to maturity six months or less) 1.00% (residual term to maturity six – 24 months) 1.60% (residual term to maturity more than 24 months)
Other	8%

16.2 The government category, which includes all forms of government paper (including bonds, Treasury bills and other short-term instruments), has a zero risk weight. However, the Registrar of Financial Institutions reserves the right to apply a specific risk weight to securities issued by certain foreign governments, especially securities denominated in a currency other than that of the issuing government. Unrated government securities receive a specific risk capital charge of 8.0 percent.

16.3 The "qualifying" category attracts risk charges between 0.25% and 1.6% depending on the residual term to maturity. This category includes:

- (a) securities issued by public sector entities and multilateral development banks and other securities, subject to supervisory authority, that are deemed to be of comparable investment quality by the reporting banking institution;
- (b) at the discretion of the Registrar, debt securities issued by banks in countries which have implemented the present Capital Accord. This will be subject to the express understanding that

supervisory authorities in such countries undertake prompt remedial action if a bank fails to meet the capital standards set forth in the Accord.

(c) debt securities issued by corporate entities that are internally classified as pass or special mention.

16.4 The "other" category will receive a specific risk charge of 8%. Both a short position and a long position in these securities are given the same 8 percent charge. This category will include "non-qualifying" corporate debt (i.e. debt issued by corporate entities that are internally classified substandard, doubtful or loss) and any other interest rate related securities not covered in other securities described above.

17 CALCULATION OF GENERAL RISK CHARGES.

17.1 General risk charges are designed to capture the market risk on the entire trading book arising from a change in interest rates i.e. a general risk charge should be applied on all the instruments on which specific risk charge would have been applied as described above.

17.2 All banks are required to use the maturity methodology to calculate the general risk charges.

17.3 In the maturity method, long or short positions in debt securities and other sources of interest rate exposures including derivative instruments are allocated into a maturity ladder comprising thirteen time-bands as shown in Market Risk Schedule 2: Interest Rate Risk.

17.4 General risk charges are calculated using the information in columns 7 to 8 on the Market Risk Schedule 2: Interest Rate Risk.

17.5 Firstly, weigh the positions (column 4) in each time-band (column 1) by a factor- risk weight (column 7) designed to reflect the price sensitivity of those positions to assumed changes in interest rates.

17.6 The factors (weights) for each time-band are set out in Table 1 below.

17.7 Trading book instruments with a coupon of more than 3% should be allocated according to time bands in column 1 of Table 1

Table 1: Maturity method time bands and weights duration Method

Coupon 3% or more	Coupon less than 3%	Risk weight	Assumed changes in yield
1 month or less	1 month or less	0.00%	1.00
1 to 3 months	1 to 3 months	0.20%	1.00
3 to 6 months	3 to 6 months	0.40%	1.00
6 to 12 months	6 to 12 months	0.70%	1.00
1 to 2 years	1.0 to 1.9 years	1.25%	0.90
2 to 3 years	1.9 to 2.8 years	1.75%	0.80
3 to 4 years	2.8 to 3.6 years	2.25%	0.75
4 to 5 years	3.6 to 4.3 years	2.75%	0.75
5 to 7 years	4.3 to 5.7 years	3.25%	0.70
7 to 10 years	5.7 to 7.3 years	3.75%	0.65

10 to 15 years	7.3 to 9.3 years	4.50%	0.60
15 to 20 years	9.3 to 10.6 years	5.25%	0.60
Over 20 years	10.6 to 12 years	6.00%	0.60
	12 to 20 years	8.00%	0.60
	Over 20 years	12.50%	0.60

17.8 Finally, the general risk charge for the net short or net long position (i.e. column 8) in each time band is obtained by multiplying column 4 and column 7. The result is a weighted net long or net short position in each time band.

17.9 The positions for all time bands are then aggregated to get the residual general risk.

18 VERTICAL DISALLOWANCES WITHIN SAME TIME BANDS

18.1 In calculating the general risk charges, short positions are given negative signs and long positions positive signs. This means that the general risk charge of a short position in any security would completely offset an equivalent principal amount of the general risk charge of a long position in any security, regardless of instrument or maturity. For this reason, disallowances of offsets are introduced.

18.2 These computations result in two sets of weighted positions; the net long and short positions in the same time-bands.

18.3 Offset the matched positions in each time-band, resulting in a net short or long position for each band.

18.4 To determine the vertical disallowances within the same time-bands allocate the long positions from column 3 of Market Risk Schedule 2b: Interest Rate Risk, for the matched time- bands, under column 3 of Part 2 (vertical offsets within same time-bands).

18.5 Allocate in the short positions for the matched time-bands, available in column 4 of Market Risk Schedule 2b: Interest Rate Risk (a), in column 4 of Part 2 (vertical offsets within same time bands).

18.6 Subtracting the weighted short position(s) in column 6 from the weighted long position(s) in column 5 gives the residual net position to be reported in column 7 of Part 2. The smaller of the short and long positions, disregarding the sign, is the offsetting amount, which is put in column 8 for each time band.

18.7 Since, however, 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, be it long or short.

18.8 The result of the above calculations is to produce weighted positions called the vertical disallowances, which have no sign and are aggregated to give the total vertical disallowance.

19 HORIZONTAL DISALLOWANCES

A bank is allowed to conduct two rounds of "horizontal offsetting":

- (a) first between the net positions in each of three zones (zero to one year, one year to four years and four years and over), and

(b) subsequently between the net positions in the three different zones.

The zones for coupons more than 3% are 0 to 1 year, 1 to 4 years and 4 years and over. The offsetting will be subject to a scale of disallowances expressed as a fraction of the matched positions, as set out in Table 2 below.

Table 2: Horizontal Disallowances

Zone	Time-band	Within the zone	Between the zone	Between zones 1 and 3
	0 to 1 month		40%	100%
Zone 1	1 to 3 months	40%		
	3 to 6 months			
	6 to 12 months			
			40%	
	1 to 2 years			
Zone 2	2 to 3 years	30%		
	3 to 4 years			
	4 to 5 years			
	5 to 7 years			
Zone 3	7 to 10 years	30%		
	10 to 15 years			
	15 to 20 years			
	Over 20 years			

19.1 Horizontal disallowances within same time zones (Market Risk Schedule 2b: Interest Rate Risk, Part 3).

19.1.1 The first step is to take the weighted long and short positions for general market risk in Part 2 of Market Risk Schedule 2b: Interest Rate Risk for each of time bands of the three zones and allocate them in the appropriate columns (i.e. column 3 or 4 of Market Risk Schedule 2b: Interest Rate Risk Part 3.

19.1.2 Subtracting the weighted short position(s) in column 6 from the weighted long position(s) in column 5 will give the residual position to be reported in column 7. The smaller of the weighted short and weighted long positions, disregarding the sign, is the offsetting amount, which should be put in column 8 for each time band.

19.1.3 The offsetting position in each of three zones attracts a disallowance factor that is part of the capital charge (i.e. 40% for Zone 1, 30% for Zone 2 and 30% for Zone 3), as shown in Table 2 above. The total of the weighted horizontal offsets gives total offsets with all the time zones.

19.2 Horizontal disallowances between time zones (Market Risk Schedule 2b: Interest Rate Risk, Part 4).

19.2.1 The residual net position in each zone as reported in column 8 of Part 4 Market Risk Schedule 2b: Interest Rate Risk, may be carried over and offset against opposite positions in other zones, subject to a second set of disallowance factors.

19.2.2 The first step is to take the total residual net position in each time zone from Part 3 and slot into either column 3 or 4 depending whether the position is long or short.

19.2.3 Subtracting the weighted short position (s) in column 6 from long positions in column 5 will give the residual position to be reported in column 7. The smaller of the weighted short and weighted long positions, disregarding the sign, is the off-setting amount which should be put in column 8 for each time band.

19.2.4 The matched positions between zones 1 and 2, zones 2 and 3, zones 1 and 3 should be weighted with the following factors:40%, 40% and 100% respectively.

The aggregate of the vertical and horizontal offsets between time zones in Market Risk Schedule 2b: Interest Rate Risk, Part 5 gives the market risk charge.

20 INTEREST RATE DERIVATIVES

20.1 The measurement system should include all interest rate derivatives and off balance sheet instruments in the trading book which react to changes in interest rates (e.g. forward rate agreements (FRAs), other forward contracts, bond futures, interest rate and cross-currency swaps and forward foreign exchange positions).

20.2 Derivatives should be converted into positions in the relevant underlying and become subject to specific and general market risk

charges. In order to determine the capital charge under the standard method described above, the amounts reported should be the market value of the principal amount of the underlying or of the notional underlying.

20.3 Futures and forward contracts, including forward rate agreements (with the exception of futures or forwards on corporate bonds, corporate bond indices or other corporate securities) are treated as a combination of a long and a short position in a notional government security.

20.3.1 The maturity of a future or a FRA will be the period until delivery or exercise of the contract, plus – where applicable – the life of the underlying instrument. For example, a long position in a June three month interest rate future (taken in April) is to be reported as a long position in a government security with a maturity of five months and a short position in a government security with a maturity of two months.

20.4 Where a range of deliverable instruments may be delivered to fulfil the contract, a bank has flexibility to elect which deliverable security goes into the maturity or duration ladder but should take account of any conversion factor defined by the exchange. In the case of a future or forward on a corporate bond or corporate bond index, positions will be included at the market value of the notional underlying portfolio of securities.

20.5 Swaps shall be treated as two notional positions in government securities with relevant maturities. For example, an interest rate swap

under which a banking institution is receiving floating-rate interest and paying fixed rate interest will be treated as a long position in a floating-rate instrument of maturity equivalent to the period until the next interest fixing and a short position in a fixed-rate instrument of maturity equivalent to the residual life of the swap.

20.6 For swaps that pay or receive a fixed or floating interest rate against some other reference price, e.g. a stock index, the interest rate component should be allocated into the appropriate re-pricing maturity category, with the equity component being included in the equity framework. The separate legs of cross-currency swaps are to be reported in the relevant maturity ladders for the currencies concerned.

21 CALCULATION OF CAPITAL CHARGE FOR DERIVATIVE

21.1 Specific risk

21.1.1 Interest rate and currency swaps, Forward Rate Agreements (FRA), forward foreign exchange contracts and interest rate futures will not be subject to a specific risk charge (they are, however, subject to the credit risk provisions). This exemption also applies to futures on an interest rate index. However, in the case of contracts where the underlying is a specific debt security, or an index representing a basket of debt securities, a specific risk charge will apply as set out under specific risk above.

21.1.2 When a future or forward comprises a range of deliverable instruments with different issuers then a specific risk charge will only apply to long positions in the future or forward, not short positions. The reason for this is that a holder of a short futures position will be able to select the most favourable

security to deliver against the futures contract, and thereby avoid issuer specific price risk. A bank holding a long position is not able to dictate which security it will receive and therefore remains exposed to that issuer specific risk.

21.2 General market risk

General market risk applies to positions in all derivative products in the same manner as for cash positions, subject only to an exemption for fully or very closely matched positions in identical instruments as defined below. The various categories of instruments should be allocated into the maturity ladder and treated according to the rules identified earlier.

21.3 Allowable offsetting of matched positions

21.3.1 A bank may exclude from the interest rate maturity framework altogether (for both specific and general market risk) long and short positions (both actual and notional) in identical instruments with exactly the same issuer, coupon, currency and maturity. A matched position in a future or forward and its corresponding underlying may also be fully offset and thus excluded from the calculation.

21.3.2 When the future or the forward comprises a range of deliverable instruments, offsetting of positions in the future or forward contract and its underlying is only permissible in cases where there is a readily identifiable underlying security which is most profitable for the bank with a short position to deliver. The price of this security, sometimes called the "cheapest-to-

deliver", and the price of the future or forward contract should in such cases move in close alignment.

21.3.3 No offsetting will be allowed between positions in different currencies; the separate legs of cross-currency swaps or forward foreign exchange deals are to be treated as notional positions in the relevant instruments and included in the appropriate calculation for each currency.

21.3.4 Opposite positions within and across product groups can in certain circumstances also be regarded as matched and allowed to offset fully. To qualify for this treatment the positions must relate to the same underlying instruments, be of the same nominal value and be denominated in the same currency.

21.3.5 In addition:

(a) for futures: offsetting positions in the notional or underlying instruments to which the futures contract relates must be for identical products and mature within seven days of each other;

(b) for swaps, FRAs and forwards: the reference rate (for floating-rate positions) must be identical and the coupon closely matched (i.e. within 15 basis points). Also, the next interest fixing date or, for fixed coupon positions or forwards, the residual maturity must correspond within the following limits:

(i) if either of the instruments which are candidates for offsetting have an interest fixing date or residual maturity up to and including one month then those dates or residual maturities must be the same for both instruments;

- (ii) if either of the instruments which are candidates for offsetting have an interest fixing date or residual maturity greater than one month and up to and including one year then those dates or residual maturities must be within seven days of each other; or if either of the instruments which are candidates for offsetting have an interest fixing date or residual maturity over one year then those dates or residual maturities must be within thirty days of each other.

Table 4: Summary of treatment of interest rate derivatives under the standard methodology

Instrument	Specific risk charge	General market risk charge
Exchange-traded future		
- Government debt security	No	Yes, as two positions
- Corporate debt security	Yes	Yes, as two positions
- Index on interest rates (e.g. MIBOR)	No	Yes, as two positions
OTC forward		
- Government debt security	No	Yes, as two positions
- Corporate debt security	Yes	Yes, as two positions
- Index on interest rates	No	Yes, as two positions
FRAs, Swaps	No	Yes, as two positions
Forward foreign exchange	No	Yes, as one position in

		each currency
Options		Either
- Government debt security	No	a) Carry out together with the associated hedging positions: - Simplified approach - Scenario analysis
- Corporate debt security - Index on interest rates - FRAs, Swaps	Yes No No	b) General market risk charge according to the delta-plus method (gamma and vega should receive separate capital charges)

22 EQUITY POSITION RISK

22.1 This section sets out a minimum capital standard to cover the risk of positions in equities in the trading book. It applies to both long and short positions in equities and equity derivatives, including instruments that exhibit market behaviour similar to equities.

22.2 The instruments covered include common stock (whether voting or non-voting), convertible bonds (i.e. debt issues or preference shares that are convertible, at a stated price, into common shares of the issuer) which trade like equities and commitments to buy or sell equity securities. Non-convertible preference shares and convertible

bonds which trade like debt securities are to be excluded from these calculations (they are covered by the interest rate risk requirements).

22.3 Long and short positions in instruments relating to the same issuer may be reported on a net basis.

23 SPECIFIC AND GENERAL MARKET RISK

23.1 Specific risk is defined as a proportion of a financial institution's gross equity positions (i.e. the sum of the absolute value of all long equity positions and of all short equity positions reported in row 11). An "equity position" is the net short and long exposure to an individual company. Hence, specific risk is assessed on the gross position across companies rather than individual transactions.

23.2 As with debt securities, 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 market risk" of holding a long or short position in the market as a whole. The long and short position in the market must be calculated on a market-by-market basis.

23.3 A separate calculation has to be carried out for each national market in which the a bank or other subsidiary in the group holds equities. A bank should indicate the country and the market where the equities being reported and the amounts in columns 1 to 9 of schedule MWMKT-Sch03. Equities with listing in more than one market should be reported as positions in the market of their primary listing.

23.4 The capital charge for specific risk will be 8 per cent. General market risk will be assessed on the difference between the sum of the longs and the sum of the shorts (i.e. the overall net position in an equity market). The general market risk charge will be 8 per cent. Again, a separate capital charge calculation must be carried out for each national market in which a bank holds equities.

23.5 Net long and short positions in different markets cannot be offset for the purpose of calculating the general market risk charge.

24 FOREIGN EXCHANGE EXPOSURES (MWMKT Sch04)

This section sets out a minimum capital standard to cover the risk of holding or taking positions in foreign currencies, including gold. Taking on foreign exchange positions may expose a bank to interest rate exposure (for example, in forward foreign exchange contracts).

Two processes are needed to calculate the capital requirement for foreign exchange risk. The first is to measure the exposure in a single currency position. The second is to measure the risks inherent in a bank's mix of long and short positions in different currencies. The capital charge will be 8 per cent of the foreign exchange net open position plus 8 per cent of the net position in gold.

24.1 Measuring the exposure in a single currency

The bank's net open position in each currency should be calculated by summing:

- (a) the net spot position (i.e. all asset items less all liability items, including accrued interest, denominated in the currency in question);
- (b) the net forward position (i.e. all amounts to be received less all amounts to be paid under forward foreign exchange transactions, including currency futures, the principal on currency swaps not included in the spot position and interest rate transactions such as futures, swaps etc denominated in a foreign currency);
- (c) guarantees (and similar instruments) that are certain to be called and are likely to be irrecoverable;
- (d) net future income/expenses not yet accrued but already fully hedged (at the discretion of the reporting bank);
- (e) any other item representing a profit or loss in foreign currencies; and
- (f) the net delta-based equivalent of the total book of foreign currency options.

Positions in composite currencies need to be separately reported but, for measuring a bank's open positions, these may be either treated as a currency in their own right or split into their component parts on a consistent basis. Currency pairs subject to a binding inter-governmental agreement linking the two currencies may be treated as the one currency. Several aspects call for more specific comment: the treatment of interest and other income and expenses; the treatment of gold; the measurement of forward currency and gold positions; and the treatment of "structural" positions.

24.2 The treatment of gold positions

Since the interbank market price for gold is effectively denominated in US dollars, a bank with an open gold position takes on exposure to movements in both the gold price and the US dollar/ Malawi kwacha exchange rate. In recognition of this, banking institutions may double count gold (and other US dollar denominated commodities) in Malawi dollar equivalent amounts, firstly as a gold (commodity) exposure and secondly as a US dollar exposure. That is, a long position in gold may be recorded both as a long gold exposure and a long US dollar exposure. The US dollar exposure can then be netted against US dollar exposures arising from other activities.

24.3 The measurement of forward currency and gold positions

Forward currency and gold positions will normally be valued at current spot market exchange rates. A bank which base its normal management accounting on net present values are expected to use the net present values of each forward position, discounted using current interest rates and translated at current spot rates, for measuring their forward currency and gold positions. Using forward exchange rates would be inappropriate since it would result in the measured positions reflecting current interest rate differentials only and not the absolute level of interest rates in each currency.

24.4 The treatment of structural positions

24.4.1 A matched currency position will protect a banking institution against loss from movements in exchange rates, but will not necessarily protect its capital adequacy ratio. If a bank has its capital denominated in Malawi Kwacha and has a portfolio of foreign currency assets and liabilities that is completely

matched, its capital/asset ratio will fall if the domestic currency depreciates. By running a short position in the domestic currency the bank can protect its capital adequacy ratio, although the position would lead to a loss if the domestic currency were to appreciate.

24.4.2 Any positions which a bank has deliberately taken in order to hedge partially or totally against the adverse effect of the exchange rate on its capital ratio may be excluded from the calculation of net open currency positions, subject to each of the following conditions being met:

- (a) such positions need to be of a "structural", i.e. of a non-trading nature;
- (b) any exclusion of the position needs to be applied consistently, with the treatment of the hedge remaining the same for the life of the assets or other items.

24.4.3 Structural positions may be regarded as including:

- (a) any position arising from an instrument which qualifies to be included in a bank's capital base;
- (b) any position entered into in relation to the net investment in a self-sustaining subsidiary, the accounting consequence of which is to reduce or eliminate what would otherwise be a movement in the foreign currency translation reserve; or

(c) investments in overseas subsidiaries or associates which are fully deducted from an institution's capital for capital adequacy purposes.

24.4.4 A bank is required to submit their definition of structural positions, and policies concerning identification and management of those positions, to the Registrar for approval and inclusion in the bank' management systems descriptions.

24.5 Measuring the foreign exchange risk in a portfolio of foreign currency positions and gold under the standard method, the nominal amount (or net present value) of the net position in each foreign currency and in gold is converted at spot rates into the reporting currency. The overall net open position is measured by aggregating:

- (a) the sum of the net short positions or the sum of the net long positions, whichever is the greater; plus
- (b) the net position (short or long) in gold, regardless of sign.

24.5.1 The capital charge will be 8 per cent of the overall net open position (refer to the example below).

YEN	DM	GBP	FFR	USD	GOLD
+ 50	+ 100	+ 150	-20	-180	-35
+ 300			-200		35

24.5.2 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) = $335 \times 8\% = 26.8$.

24.6 Additional Instructions for Foreign Exchange Risk Table 3

24.6.1 For each foreign currency net open position, the bank should separately report the Malawi kwacha equivalent of the net open position in that currency. The net open position in a particular currency should be calculated in accordance with guidelines outlined under Section A.3. In calculating the net open position in each currency:

- (a) Include all transactions contracted as at the reporting date (i.e. both traded and non-traded positions) excluding any structural positions.
- (b) Forward positions should be valued at current spot market exchange rate or using net present values.

24.6.2 Report the larger of the sum of the net long positions or the sum of the net short positions (regardless of sign) in Column 3 row 16 to 20 for Balance sheet items and Column 4 row 16 to 20 for off-balance sheet items. This should be calculated the same way as for foreign currencies. Gold positions (in Malawi kwacha equivalent amounts) may be segmented into a gold exposure and a USD exposure as outlined under Section A.3

24.6.3 The total capital charge will be calculated as 8% of the sum of the absolute values of line items 18 and 19 (reported in (Row 20)). This will be reported in column 5 row number 27.

25 REFERENCE RATES FOR MARKING TO MARKET OF FINANCIAL INSTRUMENTS

25.1 The Registrar recognises that the secondary market for short term government instruments is still shallow and very inactive and for long term debt is still being developed with a prospect of the government listing all its bonds on the stock market.

25.2 For purposes of marking to market of government securities, the reference rates shall be those issued by the Reserve Bank of Malawi's Financial Market Department daily market report.

26 EXEMPTIONS

26.1 A bank may be exempted from allocating capital for market risk if its:

- (a) market risk positions do not exceed 3 percent of the total on and off balance sheet positions at any given time;
- (b) trading activities is less than K1.0 billion
- (c) calculated risk based capital ratio is less than 10 percent.

26.2 The application for exemption must be made in writing to the Registrar.

For further enquiries please contact:

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