CENTRAL BANK OF THE BAHAMAS

GUIDANCE NOTES FOR THE COMPLETION OF MARKET RISK REPORTING FORMS

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I. Introduction

Market risk is defined as the possibility of financial loss as a result of fluctuations in the market value of assets. Market risk comprises interest rate risk, exchange rate risk, and price fluctuation risk on equities and commodities. Licensees' trading book consists of positions in financial instruments and commodities held either with trading intent or in order to hedge other elements of the trading book. To be eligible for trading book capital treatment, financial instruments must either be free of any restrictive covenants on their tradability or able to be hedged completely. Further, the trading book must meet the de minimis threshold as follows:

i. The licensee's market risk positions should be ≥ to 5% of the total on- and off-balance sheet assets;

ii. The licensee's market risk positions should equal or exceed US$100 million, and

iii. If the licensee is jointly regulated by the Securities Commission of The Bahamas, the licensee's market risk positions should equal or exceed US$25 million.

Once the licensee has a trading book that is consistent with the above definition and it meets the de minimis threshold, the licensee will be required to report on their trading book activities using the reporting forms, which will be discussed in greater detail within this document. The suite of market risk reporting forms are comprised of nine additional Microsoft Excel-based templates that have been be added to The Excel Reporting System (ERS). These Guidance Notes serve as a companion tool, providing clarification on the data inputs for the various forms. The cells are locked and color-coded such that data should only be entered into white cells.

Licensees should refer to the comprehensive ERS Guidance Notes to complete the other forms within the ERS.

A copy of version__ of the ERS Excel file containing the market risk forms and the accompanying Guidance Notes are placed on Central Bank's website for ease of access and reference by licensees. These documents may be located on the website as follows:

Log onto: www.centralbankbahamas.com

- Click on Bank Supervision
- Select Regulatory Framework
- Then select **downloadable forms.**

II. Form 11: The "Trigger" Form

Form 11 is the "trigger form" which determines whether licensees have to complete the suite of market risk reporting forms. Row A asks the licensee to give its trading book value. Row B asks for the licensee's total assets. Row C calculates the ratio (percentage) of the firm's trading book to total asset value. The Central Bank's de minims clause is greater than or equal to 5% of total assets.[1]

- Central Bank licensees will apply the instructions for Row I. Row I asks firms whose trading book to total-asset ratio is less than 5% to not fill out any remaining forms. Firms whose trading book to total asset ratio is greater than or equal to 5% will be required to continue filling out the remaining forms i.e. Form 11 to 18c as applicable.
- Joint Licensees of the Central Bank and Securities Commission must apply the instructions of Row H. If a Joint Licensee has a trading book of $25 million or higher (The Securities Commission de minimis clause) it will be required to complete the remaining forms. If the firm's trading book value is less than $25 million, it will not be required to complete the market risk forms.

[1] For the purposes of calculating the 'trigger ratio,' The Central Bank will use the 5% of total assets in the formula as it represents the higher of the de minimus clause standards.

III. Form 12: Interest Rate Position Risk - General

Interest rate risk arises when movements in interest rates cause an adverse effect on the financial condition of the institution. This section describes the calculations for measuring the risk of holding or taking positions in debt securities and other marked to market interest rate related instruments. The instruments covered include all fixed-rate and floating-rate debt securities and instruments that behave like them, including non-convertible preference shares.

Convertible bonds (i.e. debt issues or preference shares that are convertible into common shares of the issuer) will be treated as debt securities if they trade like debt securities and as equities if they trade like equities. The minimum capital requirement is expressed in terms of two separately calculated charges:

(A) "Specific risk" of each security, whether it is a short or a long position, and

(B) "General market risk" where long and short positions in different securities or instruments can be offset.

A licensee's interest rate position risk requirement is the sum of the capital required for ***specific risk*** and ***general market risk*** for each currency in which the institution has an exposure.

General Market Risk

General market risk represents the risk of loss from a price change in the instrument due; in this case of traded debt instruments or debt derivatives, to a change in the level of market interest rates. Separate tables are to be done for each currency in which there are significant interest rate risk exposures. The first table is for US currency and other currency are below in the same worksheet.

Guidance on the Calculation of Interest Rate Position Risk – General

Description of Item	Guidance
Long and Short	For each source of Interest Rate Risk exposure, insert long or short position in the appropriate Time Band according to residual maturity.
Time Band	Multiply individual positions by the weight assigned to each time Band (To reflect price sensitivity to assumed changes in interest rates).
Matched/Unmatched	Determine matched (smaller of the weighted long or short position) and unmatched positions in each time band.
Capital Charge 1	Calculate 'Capital Charge 1': 10% of the matched position in each Time Band. Then determine matched and unmatched positions from the residual balances in each Time Zone.
Calculate 'Capital Charge 2	Calculate 'Capital Charge 2': 40% of matched position in Zone 1 plus 30% matched position in Zone 2 plus 30% matched position in Zone 3. Determine matched positions Zones 1 vs. Zone 2
Calculate 'Capital charge 3	40% matched position in Zones 1 & 2. Determine matched position Zones 1and 2 vs. Zone 3.
Calculate 'Capital Charge 4	Calculate 'Capital Charge 4': 40% of matched position in Zones 1 and 2 vs. Zone 3.
Calculate 'Capital Charge 5	100% of the remaining open (unmatched) position
Total Capital Charge	Sum all calculations (Rows 1.7 + 2.3+ 3.3 + 4.3 + 5.1) to determine the total capital charge.
Interest Rate Risk Equivalent Assets	Total Capital Charge x Reciprocal CAR (12.5%)

FORM 12: INTEREST RATE POSITION RISK – GENERAL

Form 12: **Interest Rate Position Risk - General**									
Licensee Name:									
Licensee Code:									
Reporting Date:									
	Time Band:	**ZONE 1**		**Zone 2**		**ZONE 3**			**Capital Charges**
	Coupon < 3%	**1 - 3 mths**	**6- 12 mths**	**1.9 - 2.8 yr**	**2.8 - 3.6 yr**	**3.6 - 4.3 yr**	**4.3 - 5.7 yr**	**over 20 yrs**	
	Coupon => 3%	**1 - 3 mths**	**6 - 12 mths**	**2 - 3 yrs**	**3 - 4 yrs**	**4 - 5 yrs**	**5 - 7 yrs**		
	Positions:								
1.1	Total Long								
1.2	Total Short								
1A	Weight (%)	0.20%	0.70%	1.75%	2.25%	2.75%	3.25%		
1.3	Weighted Long	0	0	0	0	0	0	0	
1.4	Weighted Short	0	0	0	0	0	0	0	
1.5	Matched	0	0	0	0	0	0	0	
1.6	Unmatched	0	0	0	0	0	0	0	
1C	Capital Required	10%	10%	10%	10%	10%	10%	10%	
1.7	**Capital Charge 1**	0	0	0	0	0	0	0	0
2.1	Resid. Matched				0			0	
2.2	Resid. Unmatched				0			0	
2C	Capital Required		40%		30%			30%	
2.3	**Capital Charge 2**		0		0			0	0
3.1	Resid. Matched				0				
3.2	Resid Unmatched				0				
3C	Capital Required				40%				
3.3	**Capital Charge 3**				0				0
4.1	Resid. Matched								
4.2	Resid. Unmatched								
4C	Capital Required							40%	
4.3	**Capital Charge 4**								
5.1	**Overall Net Open / Capital Charge 5 (100%)**								
6.0	**Total Capital Charge**								
7.0	**Interest Rate Risk Equivalent Assets** (Total Capital Charge x Reciprocal CAR) =								

IV. Form 13: Interest Rate Position Risk – Specific

The capital charge for specific risk is designed to protect against an adverse movement in the price of an individual security owing to factors related to the individual issuer. The specific risk charge is split into broad categories depending on the counterparty. It is calculated by multiplying the absolute values of the debt position by their respective risk factors. The risk factors correspond to the category of the obligor and the residual maturity of the instrument. In measuring the risk, an institution may offset matched long and short positions in an identical issue (including positions in derivatives). Even if the issuer is the same, no offsetting will be permitted between different issues since differences in coupon rates, liquidity, and call features mean that prices may diverge in the short run.

"Zone A Government"

The "Zone A Governments" category includes all forms of government paper including, but not limited to: Bonds, Treasury bills, Other short-term instruments, Debt securities issued by, fully guaranteed by, or fully collateralized by securities issued by Zone A Governments denominated in national currencies, as approved by the Central Bank

"Zone A"

"Zone A" Countries have been defined as The Bahamas and all countries which are full members of the Organization for Economic Co-operation and Development (OECD), together with those countries which have concluded lending arrangements with The International Monetary Fund via the General Agreement to Borrow (GAB), excluding those countries which have rescheduled their external debts during the preceding five years and those countries whose rating for long-term liabilities in foreign currencies is lower than "investment grade" or which have no rating and whose yield to maturity and remaining duration are not comparable with those of long-term liabilities with an investment grade rating."

"Zone B"

Zone B Countries are all other countries which cannot be classified as Zone A.

"Qualifying"

The "qualifying" category includes debt securities issued by, or fully guaranteed by, public sector entities, plus other securities that are:

A. Rated investment-grade by at least two recognized credit rating agencies specified by the Central Bank

B. Rated investment-grade by one recognized credit rating agency and not less than investment-grade by any other rating agency specified by the Central Bank, or

C. Unrated, but deemed to be of comparable investment quality by the reporting bank, and the issuer has securities listed on a recognized stock exchange, all subject to supervisory approval. In such a case, supervisory authority will be very stringent on the application of the monitoring criteria. At the discretion of the Central Bank, the qualifying category can also include debt securities issued by banks in countries that have implemented the 1988 Accord and regulated firms that have implemented the 1988 Capital Accord.

"Other"

The "other" category includes all securities issued by parties other than approved governments and multi-national development banks, that is, debt securities that qualify as neither government nor qualifying securities e.g. private sector issuers.

FORM 13: INTEREST RATE POSITION RISK – SPECIFIC

	Form 13: Interest Rate Position Risk – Specific				
	Licensee Name:				
	Licensee Code:				
	Reporting Date:				
	CALCULATION OF SPECIFIC RISK	**External Credit Assessment**	**Net Long or Short Position**	**Risk Charge**	**Capital Required**
1.0	**Government**	**AAA to AA- >**		0%	0
		A+ to BBB- >		0.25% (residual term to final maturity 6 months or less)	0
				1.00% (residual term to final maturity greater than 6 and up to and including 24 months)	0
				1.60% (residual term to final maturity exceeding 24 months	0
		BB+ to B-		8%	0
		Below B-		12%	0
		Unrated		8%	0
2.0	**Qualifying Securities:**				
2.1	6 mths. or under to maturity			0.25%	0
2.2	over 6 mths up to 2 yrs. to maturity			1.00%	0
2.3	over 2 yrs. to maturity			1.6%	0
3.0	**Other**			10.00%	0
4.0	**Capital Required Against Specific Risk:**				0
5.0	**Capital Required Against General Risk** (Taken from Form 12				
6.0	**Capital Required Against Interest Rate Options**(Taken from Form 17				
7.0	**Total Capital Required Against Interest Rate Risk** (Total of Rows: 4.0, 5.0,+ 6.0)				0
8.0	**INTEREST RATE RISK EQUIVALENT ASSETS** (Total capital required x Reciprocal CAR)				0

Guidance on the Calculation of Interest Rate Specific Risk

Description of Item	Guidance
Net Long or Short Position	Enter Long or Short Position in each security
Risk Charge	Pre-determined percentages given the risk level of the underlying security as determined by credit rating
Capital Required	Net Long Position multiplied by the Risk Charge
Capital Required Against Specific Risk:	The SUM of Capital Required for each Position
Capital Required Against General Risk	This calculation is automatically pulled from the Interest Rate General Risk Form
Capital Required Against Interest Rate Options	This calculation is automatically pulled from the Interest Rate Options Form
Total Capital Required Against Interest Rate Risk	The SUM of Capital Requires against Specific, General, and Interest Rate Options
Interest Rate Risk Equivalent Assets	Total Capital Required multiplied by 12.5% (Reciprocal Capital Adequacy Ratio)

V. Form 14: Equity Position Risk

This section sets out the minimum capital standard to cover an institution's risk of holding or taking positions in equities. An institution which holds equity positions (whether long or short) is exposed to the risk that the value of individual equity positions relative to the market may move against the institution – specific risk – and that the equity market as a whole may move against it – general risk. Equity risk capital requirements will apply to positions and exposures on the following instruments:

A. Common shares, whether voting or non-voting;

B. Convertible preference shares or securities that behave like equities;

C. Convertible debt securities which convert into equity instruments and are trading as equities;

D. Any other instruments exhibiting equity characteristics; and

E. Equity derivatives or derivatives based on above securities

It applies to long and short positions in all instruments that exhibit market behavior similar to equities, but not to non-convertible preference shares, as these is covered by the interest rate risk requirements. Long and short positions in identical equity issues may be reported on a net basis. The long and short position must be calculated on a market-by-market basis, and so a separate worksheet should be done for each national market in which the reporting institution holds equities. Equity securities listed in more than one country must be allocated to either the country where the issuer is incorporated and listed or the country where the security was purchased or sold, but not both. Calculations should be expressed in the domestic currency equivalent of the denomination of the equity, converted at spot rates at the reporting date. The capital charge for both specific and general market risk will be 8%.

Guidance on the Calculation of Equity Position Risk

Description of Item	Guidance
Column A - Gross Long	The net position of each equity should be entered into Column A 'Gross Long' if it is a long position. Note that long and short positions in each equity may be reported on a net basis for the purposes of calculating open positions. However, positions in different equities are not off-settable in this fashion
Column B - Gross Short	The net position in each equity should be entered into Column B 'Gross Short' if it is a short position. Note that long and short positions in each equity may be reported on a net basis for the purposes of calculating open positions. However, positions in different equities are not off-settable in this fashion.
Total Equity Instruments	The total value of all relevant equity securities for each long and short position
Column C – Gross Equity Position	The value of Column A is added to the value of Column B, with the signs (direction of position) ignored
Column D – Net Open Position	The value of Column A is subtracted from the value of Column B to derive the net open position which is an absolute value.
Column E – 8% of Gross Position	The capital charge to cover specific risk, (defined as the bank's gross equity positions i.e., the sum of all long equity positions and of all short equity positions) is calculated as 8% of the gross position (8% of the total of Column C)
Column F – 8% of Net Open	The capital charge to cover general market risks (defined as the difference between the sum of the long vs. the sum of the short positions i.e., the overall net position in an equity market) is calculated as 8% of the net open position (8% of Column D)
Capital Required Against Specific Risks	This represents 8% of the Gross Position.
Capital Required Against General Risks	This represents 8% of the Net Open Position
Total Capital Requirement against Equity Position Risk	Capital charges calculated in respect of specific risks and general market risks are summed together
Equity Position Risk Equivalent Assets	Total Capital Requirement against Equity Position Risk multiplied by 12.5 % (The Reciprocal of the Capital Adequacy Ratio)

VI. Equity Position Risk

Form 14							
Licensee Name:							
Licensee Code:							
Reporting Date:							
							(USD$000)
		A	B	C	D	E	F
	Equity Instruments	Gross Long	Gross Short	ss Equity Posi (Col. A + B)	et Open Positio (Col. A - B)	of Gross Pos 8 % of Total C	8 % of Net Oper (8% of Total D)
	Total Equity Intruments			0	0	0	0
1	**Capital Required Against Specific Risk** (Total Column E)						0
2	**Capital Required Against General Risks** (Total Column F)						0
3	**Capital Required Against Equity options** (Taken from Form 16)						0
4	**Total Capital Requirement Against Equity Position Risk** (Total of Rows: 1 + 2 + 3)						0
5	**EQUITY POSITION RISK EQUIVALENT ASSETS** (Total Capital Requirement x Reciprocal of CAR)						0

VII. Form 15: Foreign Exchange Position Risk

This section highlights the minimum capital standard to cover risk of holding or taking positions in foreign currencies. Foreign Exchange Position Risk is the risk to earnings and capital arising from adverse movements in currency exchange rates. This reflects the impact of adverse movements on the value of open foreign currency positions. It is also important to note that licensees are exposed to interest rate risk that arises from the mismatching of term foreign currency positions. Should exchange controls be lifted, domestic commercial banks in The Bahamas may be more exposed to this type of risk.

Foreign exchange risk exposures can be divided broadly into two categories: structural and trading. Structural exposures typically arise because of structural imbalances between assets and liabilities; these exposures do not normally change rapidly. Exposures other than structural are generally regarded as trading. These exposures may arise because of business needs, customer transactions that cannot be covered immediately, or because a view is taken on currency movements. As trading exposures arise and change rapidly, they can usually only be restricted within prescribed trading limits. Structural exposures in foreign currency include those arising from:

A. Investment in fixed assets and premises;
B. Equity investment in overseas subsidiaries and related companies;
C. “Endowment” capital in overseas branches;
D. Issue of capital instruments such as subordinated debt and preference shares; and
E. Booking of unremitted profits or remittance of profits from overseas branches.

Other examples may arise, such as positions resulting from an entrenched imbalance between the currency denomination of banking assets and liabilities, or because capital is in a different currency to assets. Please note that gold is dealt with as a foreign exchange risk due to its volatility being more in line with foreign currencies rather than a commodity.

Guidance on the Calculation of Foreign Exchange Position Risk

Item	Description of Item	Guidance
1.1	Net Spot Position	Balance sheet assets" less "Balance sheet liabilities" (include accrued interest, denominated in the currency in question).
1.2	Net Forward Position	"Gross purchases" less "Gross sales" (i.e. all amounts to be received less all amounts to be paid under forward foreign exchange transactions, including currency futures and the principal on currency swaps not included in the spot position).
1.3	Guarantees	Include all guarantees (or similar instruments) currently held.
1.4	Net Future Income/Expenses	Interest accrued (but not yet received) to be included as well as any accrued expenses (but not yet paid).
1.5	Net Delta Base of Foreign Currency Options	Net delta of foreign currency options portfolio currently held.
1.6	Net Open Position	The sum of columns 1.1, 1.2, 1.3, 1.4 and 1.5.
1.7	Net Long Position	Include all net long positions for all currencies.
1.8	Net Short Position	Include all net short positions for all currencies.
1.9	Gold-Absolute Value of Open Position	Sum of the net spot position and net forward position (Note: These positions should be calculated in the same manner as net open positions in foreign currencies 1.6). Net open position should be reported in US dollars, including sign (i.e. positive or negative). A negative value indicates a short position and a positive value indicates a long position.
1.10	Greater of absolute value of Net Long and Net Short Position	Report the larger absolute value of the sum of the net long positions or the sum of the net short positions in this row.
1.11	Total Capital Charge for FX Risk	Calculated as 8% of the sum of item 1.10 and item 1.9.

FORM 15: FOREIGN EXCHANGE POSITION RISK

Licensee Name:								
Licensee Code:								
Reporting Date:								
Currency	**Net Spot Position (1.1)**	**Net Forward Position (1.2)**	**Guarantees (1.3)**	**Net Future Income/Expenses (1.4)**	**Net Delta Based of Foreign Currency Options (1.5)**	**Net Short Position (1.6)**	**Net Long Position (1.7)**	**Net Open Position (1.8)**
USD								
EUR								
JPY								
GBP								
CHF								
CAD								
HKD								
INR								
BRL								
PAB								
Other								
Other								
Other								
Total	0	0	0	0	0	0	0	0
Gold-Absolute Value of Open Position (1.9)								
Greater of Absolute Value of Net Long and Net Short Position (1.10)								
Foreign Exchange Options Risk								
Total Foreign Exchange Exposure								
Total Capital Charge for FX Risk (1.11) (8%)								

VIII. Form 16: Commodity Position Risk

A commodity is defined as a physical product which is or can be traded on a secondary market, e.g. agricultural products, minerals (including oil) and precious metals. This section establishes a minimum capital standard to cover the market risk of holding or taking positions in commodities, including precious metals (except gold, which is treated as a foreign currency). Each long and short commodity position (spot and forward) is expressed in terms of the standard unit of measurement (such as barrels, kilos or grams). The net position in each commodity should be converted at current spot rates into US dollars.

Guidance on the Calculation of Commodities Position Risk

Description of Item	Guidance
Column A - Gross Long	The net position in each commodity should be converted at current spot rates into USD currency and entered into column A 'Gross Long' if it is a long position.
Column B - Gross Short	The net position in each commodity should be converted at current spot rates into domestic currency and entered into Column B 'Gross Short' if it is a short position.
Total Equity Instruments	The total value of all relevant commodities for each long and short position. Long and short positions in each commodity may be reported on a net basis for the purposes of calculating open positions. However, positions in different commodities are not off settable in this fashion.
Column C – Gross Commodity Position	The value of Column A is added to the value of Column B, with the signs (direction of position) ignored
Column D – Net Open Position	The value of Column A is subtracted from the value of Column B to derive the net open position which is an absolute value.
Column E – 15% of Net Open Position	The capital charge to cover directional risk (risk of change in spot prices) is calculated as 15% of the net open position (15% of the total of Column D).
Column F – 3% of Gross Position	The capital charge to protect the bank against basis risk, interest rate risk and forward gap risks is calculated as an additional 3% of the bank's gross position, long and short, in that particular commodity (3% of the Total of Column C).
Capital Required Against Directional Risk	This represents 15% of the Net Open Position.
Capital Required Against Basis, Interest Rate and Forward Gap Risks	This represents 3% of the Gross Position.
Total Capital Required Against Commodity Position Risk	This is the total capital charge calculated in respect of directional risks and basis, interest rate and forward gap risks

16: COMMODITY POSITION RISK

	Form 16: Commodity Position Risk					
	Licensee Name:					
	Licensee Code:					
	Reporting Date:					
		A	**B**	**C**	**D**	**E**	**F**
	Commodity Instrument	**Gross Long**	**Gross Short**	**Gross Position** (Col. A + B)	**Net Open Position** (Col. A - B)	**15 % of Net Open** (15 % of Total D)	**3% of Gross Position** (3% of Total C)
	Total Commodity Instruments			0	0	0	0
1	**Capital Required Against Directional Risks** (Total Column E)						0
2	**Capital Required Against Basis, Interest Rate & Forward Gap Risks** (Total Column F)						0
3	**Capital Required Against Commodity Options** (Taken From Form 16)						0
4	**Total Capital Required Against Commodity Position Risk** (Total Rows: 1 + 2 + 3)						0
5	**COMMODITY POSITION RISK EQUIVALENT ASSETS** (Total Capital Required x CAR Reciprocal)						0

IX. Form 17: Interest Rate Options Risk

Option contracts and related hedging positions in the associated underlying instrument, commodity or index, cash or forward are subject to capital requirements as calculated in this section. The capital requirements calculated in this section should then be added to the capital requirements for debt securities, equities, foreign exchange and commodities risk. Under the standardized approach two alternatives to measuring market risk for options activities are available:

- Institutions which solely use purchased options may use the simplified method
- Institutions which also write options must use the scenario method unless all their option positions are hedged by perfectly matched long positions in exactly the same options, in which case no capital charge is required for market risk.

Simplified Approach

Financial institutions which handle a limited range of purchased options may use the simplified approach for individual options positions. As an example of how the calculation would work, if a holder of 100 shares currently valued at $10 each holds an equivalent put option with a strike price of $11, the capital charge would be: $1,000 x 16% (i.e., 8% specific plus 8% general market risk) = $160, less the amount the option is in the money ($11 - $10) x 100 = $100, i.e., the capital charge would be $60. A similar methodology applies for options whose underlying is a foreign currency, an interest rate related instrument or a commodity. For foreign currency options where it is unclear what the underlying asset is, the asset that will be received if the option is exercised should be treated as the underlying asset.

SIMPLIFIED APPROACH: CAPITAL CHARGES

Position	Treatment
Covered Position Options: Long cash and Long put or Short cash and Long call	The capital charge will be the market value of the underlying security8multiplied by the sum of specific and general market risk charges for the underlying less the amount the option is in the money (if any) bounded at zero
Naked Position Options: Long call or Long put	The capital charge will be the lesser of: i. the market value of the underlying security multiplied by the sum of specific and general market risk charges for the underlying security ii. (ii) the market value of the option

Scenario Method

Under the scenario method, an institution is required to make separate calculations of the specific risk and general market risk of options and their related hedging positions. Specific risk charges must be calculated on each issue in which the institution has a net option position that is subject to interest rate risk or to equity risk. General risk charges are calculated on portfolios of options (groupings are set out below). The scenario method uses simulation techniques to calculate changes in the value of an options portfolio for changes in the level and volatility of the prices of its associated underlying instruments. Under this approach, the general market risk charge is determined by the scenario "matrix" (i.e., the specified combination of underlying and volatility changes) that produces the largest loss. The total general market risk capital requirement for all option portfolios is the sum of the largest losses of individual option portfolios. In addition to the general market risk of its interest rate and equity options portfolios, institutions using the scenario method are required to calculate the specific risk of these options using the same basic methodology in the preceding sections on interest rate position risk and equity risk.

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, e.g., caps and floors, swap options etc. Some options (e.g., where the underlying is an interest rate, a currency or a commodity) bear no specific risk but specific risk will be present in the case of options on certain interest rate related instruments (e.g., options on a corporate debt security or corporate bond index) and for options on equities and stock indices. The charge under this measure for currency options will be 8% and for options on commodities 15%. 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. Where the position does not fall within the trading book (i.e., options on certain foreign exchange or commodities positions not belonging to the trading book), it may be acceptable to use the book value instead.

Calculating the General Market Risk

An institution constructs a two-dimensional matrix for each of its options portfolios. Options portfolios include options and any related hedging positions grouped together as follows:

A. For interest rates, options on underlying instruments whose residual maturity is bounded by one of at least six groups of time bands where no more than three contiguous time bands are grouped together;
B. For equities and equity indices, each national market;
C. For foreign currencies and gold, each currency pair and gold and;
D. For commodities, each individual commodity.

The first dimension of each matrix requires the institution to evaluate the portfolio over a specified range above and below the current value of the underlying instrument, commodity, or index. For interest rates the range is consistent with the assumed changes in yield for the time bands. Institutions should use the highest of the assumed changes in yield applicable to the time bands that it groups together. The time bands and assumed changes in yield are:

Time Band	Assumed Changes in Yield	Time band	Assumed changes in yield
up to 1 month	1.00	3 up to 4 years	0.75
1 up to 3 months	1.00	4 up to 5 years	0.75
3 up to 6 months	1.00	5 up to 7 years	0.70
6 up to 12 months	1.00	7 up to 10 years	0.65
1 up to 2 years	0.90	10 up to 15 years	0.60
2 up to 3 years	0.80	15 up to 20 years	0.60
		over 20 years	0.60

The other ranges are ±8 per cent for equities, ±8 per cent for foreign exchange and gold, and ±15 per cent for commodities. For all option portfolios, at least seven observations (including the current observation) should be used to divide the range into equally spaced intervals. The second dimension of the matrix entails a change in the volatility of the underlying rate or price equal to ± 25 per cent of the current volatility. For example, if the underlying of an equity instrument has a current market value of $100 and a volatility of20%, the first dimension of the grid would range from $92 to $108, divided into eight intervals of $2.00 and the second dimension would assume volatility stays at 20%, increases to 25%(20% + (.20 x .25)) and decreases to 15% (20% - (.20 x .25)).

The application of the scenario method, particularly regarding the precise way the analysis is constructed, will be subject to review by Central Bank. An institution using the scenario method should have appropriate qualitative standards for the internal model being used.

Calculating the Specific Risk of Options on Debt and Equity Securities

The specific risk charge for options on debt securities is calculated by multiplying the market value of the effective notional amount of the debt instrument that underlies an option by: the option's delta; and by the specific risk factors that correspond to the category and residual term of the underlying debt instrument. The specific risk charge for options on equity securities and options on an equity index is calculated by multiplying the market value of the effective notional amount of the equity instrument or equity index that underlies an option by: the option's delta; and then by: 8%; or4% if the portfolio of equities and equity derivatives including options is both liquid and well-diversified as defined in the section on equities risk; or 2% if the option is based on an index of equities. The effective notional amount of an option is the market value of the stated underlying debt or equity instrument or equity index adjusted to reflect any multiplier applicable to the contract's reference rate(s) or, where there is no multiplier component, simply, the market value of the stated underlying debt or equity instrument or the notional amount underlying an option on an equity index.

FORM 17: INTEREST RATE OPTIONS RISK

Form 17: Interest Rate Options Risk					
Licensee Name:					
Licensee Code:					
Reporting Date:					
Interest Rate Options					
	For underlying instrument:	**ZONE 1**		**ZONE 2**		**ZONE 3**
	Maturity Time Band	**0 - 1 mth**	**> 1 - 3 mths**	**> 1 - 1.9 yrs**	**> 1.9 - 2.8 yr**	**> 3.6 - 4.3 yr**
	Specific Risk for 'Government' Securities	0.00%	0.00%	0.00%	0.00%	0.00%
	Specific Risk for 'Qualifying' Securities	0.25%	0.25%	1.00%	1.60%	1.60%
	Specific Risk for 'Other' Securities	8.00%	8.00%	8.00%	8.00%	8.00%
	Duration Time Band	**0 - 1 mth**	**> 1 - 3 mths**	**> 1 - 1.9 yrs**	**> 1.9 - 2.8 yr**	**> 3.6 - 4.3 yr**
	Position					
	Assumed change in yield	1.00	1.00	0.90	0.80	0.75
	General Market Risk	0.00	0.00	0.00	0.00	0.00
		Market Value of the Underlying Security	**Market Value of the Option**	**Risk Charge (Total Market Risk + Specific Risk)**	**Amount the Option is IN the money**	**Capital Charge**
	Total Long cash and Long put					
						0
						0
	Total Short cash and Long call					
						0
						0
	Total Long call					
						0
						0
	Total Long Put					
						0
						0
	Total Capital Charge for Interest Rate Options:					0

X. Form 18A: Equity Options Risk

Form 18A: Equity Options Risk					
Licensee Name:					
Licensee Code:					
Reporting Date:					
	Market Value of the Underlying Security	Market Value of the Option	Risk Charge	Amount the Option is IN the money	Capital Charge
Total Long cash and Long put					
			16%		0
			16%		0
Total Short cash and Long call					
			16%		0
			16%		0
Total Long call					
			16%		0
			16%		0
			16%		0
Total Long Put					
			16%		0
			16%		0
			16%		0
Total Capital Charge for Equity Options:					**0**

XI. Form 18B: Foreign Exchange Options Risk

Form 18B: Foreign Exchange Options Risk					
Licensee Name:					
Licensee Code:					
Reporting Date:					
	Market Value of the Underlying Security	Market Value of the Option	Risk Charge	Amount the Option is IN the money	Capital Charge
Total Long cash and Long put					
			10%		0
			10%		0
			10%		0
Total Short cash and Long call					
			10%		0
			10%		0
			10%		0
Total Long call					
			10%		0
			10%		0
			10%		0
Total Long Put					
			10%		0
			10%		0
			10%		0
Total Capital Charge for Foreign Exchange Options:					**0**

XII. Form 18C: Commodity Options Risk

Form 18C: Commodity Options Risk					
Licensee Name:					
Licensee Code:					
Reporting Date:					
	Market Value of the Underlying Security	Market Value of the Option	Risk Charge	Amount the Option is IN the money	Capital Charge
Total Long cash and Long put					
			18%		0
			18%		0
			18%		0
Total Short cash and Long call					
			18%		0
			18%		0
			18%		0
Total Long call					
			18%		0
			18%		0
			18%		0
Long Put					
			18%		0
			18%		0
			18%		0
Total Capital Charge for Commodity Options:					**0**

XIII. Total Market Risk Capital Charge

The Market Risk Capital Sheet is the final form in the market risk series. It incorporates all the respective market risk categories; interest rate risk, equity position risk, foreign exchange risk, options risk, and commodities risk, into an aggregate market risk capital charge. The form pulls the market risk charge from each risk element and summates the risk charges into a Total Market Risk Capital Charge. The Total Market Risk Capital charge will be applied in the Statement of Capital Adequacy.

A	Interest Rate Risk			
A1	Specific Risk (Form 13)			
A2	General Market Risk (Form 12)			
A3	Total Interest Rate Risk			
B	Equity Position Risk			
B1	Specific Risk (Form 14)			
B2	General Market Risk (Form 14)			
B3	Total Equity Position Risk			
C	Foreign Exchange Risk (Form 15)			
E.	Commodities Risk (Form 16)			
F	**Total Market Risk Capital Charge**			

XIV. Statement of Capital Adequacy

The Total Market Risk Capital Charge is pulled into the Statement of Capital Adequacy. The Total Market Risk Capital Charge is multiplied by 12.5, which is the reciprocal Capital Adequacy Ratio (CAR).[2] The Reciprocal CAR converts the capital charge into a Total Market Risk Equivalent Assets, which gives an estimate of risk weighted assets that the firm's market risk exposure represents. The Total Risk Weighted Assets increases, given the addition of the Total Market Risk Equivalent Assets. Therefore, the CAR may decline since the Total Eligible Capital is smaller relative to the larger Total Risk Weighted Assets.

Bank XYZ Statement of Capital Adequacy		
T1	TOTAL ON BALANCE SHEET (RISK WEIGHTED) ASSETS	
T2	TOTAL OFF BALANCE SHEET (RISK WEIGHTED) ASSETS	
T3	Total Market Risk Equivalent Assets	
T4	TOTAL RISK WEIGHTED ASSETS	
T5	Total Capital Required for Market Risk	
T6	Total Capital Required for Credit Risk	
T7	Total Required Capital	
T8	TOTAL ELIGIBLE CAPITAL	
T9	Capital Surplus/(Deficit)	
T10	**CAPITAL ADEQUACY RATIO**	

[2] The Capital Adequacy Ratio is 8/100 or 8%. The reciprocal Capital Adequacy Ratio is 100/8 or 12.5

Appendix A: Glossary

Basis risk: The risk that the relationship between the prices of two similar, but not identical, instruments will change. Thus, even if maturities are perfectly matched, basis risk could remain.

Duration: The sensitivity of a bond's price (as a percentage of initial price) to a change in yield or the weighted average time to maturity using the relative present value of the cash flows as weights.

Earnings Perspective – Under the earnings perspective (or income effect), the focus of the analysis is on the impact of interest rate changes on accrued or reported earnings. As reduced earnings or outright losses can threaten the financial viability of a licensee, by undermining its capital and by reducing market confidence, licensees should assess the impact of interest rate changes on net interest income (i.e., the difference between total interest income and total interest expense). Additionally, licensees should assess the impact of interest rate changes on activities that generate fee-based and other non-interest income, such as loan servicing and asset securitization programs, which can be highly sensitive to market interest rates.

Economic Value Perspective: Variations in market interest rates can affect the economic value of a licensee's assets, liabilities and off-balance sheet positions. The economic value of an instrument represents an assessment of the present value of its expected net cash flows, discounted to reflect market rates. As fluctuations in interest rates will affect a licensee's earnings, they will also affect its net worth. Under the economic value perspective, licensees should assess the potential long-term effects of changes in interest rates on their overall position.

Equity Position Risk: The risk to earnings or capital arising from adverse changes in the value of equity related portfolios. The price risk could be systematic or unsystematic. The former refers to the sensitivity of the value of the portfolio to changes in the overall level of equity prices, while the latter reflects the volatility associated with idiosyncratic share price characteristics.

Foreign Exchange Position Risk: The risk to earnings and capital arising from adverse movements in currency exchange rates. This reflects the impact of adverse movements on the value of open foreign currency positions. It is also important to note that licensees are exposed to interest rate risk that arises from the mismatching of term foreign currency positions. Should exchange controls be lifted, domestic commercial banks in The Bahamas may be more exposed to this type of risk.

General market risk: The risk of a loss arising from adverse changes in market prices, for example, a change in interest rates or official policy.

Interest rate risk: The risk that changes in market interest rates might adversely affect an institution's financial condition.

Investment-grade: Securities which are rated at or above Baa by Moody's Investors Services or BBB by Standard & Poor's Corporation.

Long position: Refers to a position which gives or may give the institution a right or imposes or may impose an obligation on it to receive a payment or an asset. Bought call options and sold
Put options shall be covered by the definition of a long position.

Market risk: The risk of losses in on- and off-balance-sheet positions arising from movements in market prices, including interest rates, exchange rates and equity values.

Marking-to-market: The process of revaluing a portfolio on the basis of prevailing market prices

Matched weighted position: The smaller of the sum of the risk weighted long positions or the sum of the risk weighted short positions within a time band or a zone or between zones.

Net position: The excess of the long over the short position in identical securities and derivatives.

Off-balance-sheet Activities: Banks' business that does not generally involve booking assets or liabilities. Examples include trading in swaps, options, futures and foreign exchange forwards, and the granting of standby commitments and letters of credit.

Trading book: It is defined as the bank's proprietary positions in financial instruments which are intentionally held for short-term resale and/or which are taken on by the bank with the intention of benefiting in the short-term from actual and/or expected differences between their buying and selling prices. (Amendment to the capital accord, Basel Committee on Banking Supervision, 1996).

Specific risk: The risk that the price of a given instrument will move out of line with similar instruments, due principally to factors related to its issuer.

Short position: Refers to a position which gives or may give the institution a right or imposes or may impose an obligation on it to make a payment or deliver an asset. Sold call options and bought put options shall be covered by the definition of a short position.

Zone A: "Zone A" Countries have been defined as The Bahamas and all countries which are full members of the Organization for Economic Co-operation and Development (OECD), together with those countries which have concluded lending arrangements with The International Monetary Fund via the General Agreement to Borrow (GAB), excluding those countries which have rescheduled their external debts during the preceding five years and those countries whose rating for long-term liabilities in foreign currencies is lower than "investment grade" or which have no rating and whose yield to maturity and remaining duration are not comparable with those of long-term liabilities with an investment grade rating."

Zone B: Zone B Countries are all other countries which cannot be classified as Zone A.

Appendix B: Currency Table

ABBREVIATION	NAME IN FULL
USD	UNITED STATES DOLLAR
EUR	EURO CURRENCY
JPY	JAPANESE YEN
GBP	BRITISH POUND
CHF	SWISS FRANC
CAD	CANADIAN DOLLAR
HKD	HONG KONG DOLLAR
MXN	MEXICAN PESO
INR	INDIAN RUPEE
BRL	BRAZILIAN REAL
PAB	PANAMANIAN BALBOA

Appendix C: List of "Zone A" Countries

Australia	Sweden
Austria	Switzerland
Belgium	Turkey
Canada	United Kingdom
Chile	United States
Czech Republic	Luxembourg
Denmark	Mexico
Estonia	Netherlands
Finland	New Zealand
France	Norway
Germany	Poland
Iceland	Slovak Republic
Israel	Slovenia
Italy	Spain
Japan	Korea
The Bahamas	