CENTRALE BANK VAN ARUBA

Chart of Accounts Manual

ATTACHMENTS

(September 2018)

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LIST OF ACRONYMS

ADB	Asian Development Bank
AfDB	African Development Bank
AML	Anti-Money Laundering
ASA	Alternative Standardized Approach
ATM	Automated Teller Machine
Basel II	The International Convergence of Capital Measurement and Capital Standards
BIA	Basic Indicator Approach
BIS	Bank for International Settlements
CBA	The Centrale Bank van Aruba
CCF	Credit Conversion Factor
CDB	Caribbean Development Bank
CEA	Credit Equivalent Amount
CEDB	Council of Europe Development Bank
CoA	Chart of Accounts
EBRD	European Bank for Reconstruction and Development
ECA	Export Credit Agency
ECAI	External Credit Assessment Institution
EIB	European Investment Bank
EIF	European Investment Fund
Fitch	Fitch Rating Services
IADB	Inter-American Development Bank
IBRD	International Bank for Reconstruction and Development
IDB	Islamic Development Bank
ISIC Code	The International Standard of Industrial Classification of All Economic Activities
LTV	Loan-to-value
MDBs	Multilateral Development Banks
Moody's	Moody's Investor Services
NIF	Note Issuance Facilities
NIB	Nordic Investment Bank

ODCs	Other Depository Corporations
OECD	Organization for Economic Cooperation and Development
OFCs	Other Financial Corporations
ONCs	Other Nonfinancial Corporations
PSE	Public Sector Entity
RUF	Revolving Underwriting Facility
RWA	Risk Weighted Assets
SA	Standardized Approach
SS(s)	Supporting Schedule(s)
S&P	Standards & Poor's Corporation
UCITS	Undertakings for Collective Investments in Transferable Securities

1. INTRODUCTION

This document forms an integral part of the Chart of Accounts (CoA) manual - Main document.

In order to complete the Sub-Reports and Supporting Schedules (SSs), these attachments should be read in conjunction with the instructions in the CoA main document.

The attachments contain:

a) Additional information on and explanation of certain SSs.
b) An overview of the CBA's choices made under National Discretion.
c) Other relevant information with respect to the application of Basel II.

2. ATTACHMENTS

The CoA consists of the Balance Sheet, the Profit and Loss Statement and the Contingent Liabilities, and is supplemented with Sub-Reports I and II and Supporting Schedules (SSs), which are collectively referred to as "CoA reports".

In the instructions of various CoA reports and in the CoA manual - Main document, reference is made to the following attachments that relate to those CoA reports.

2.1 ATTACHMENT A - PERPETUAL NON-CUMULATIVE PREFERENCE SHARES – CRITERIA FOR INCLUSION IN TIER 1 CAPITAL

1. General

The inclusion of perpetual non-cumulative preference shares in the Tier 1 capital component (as share capital) requires the CBA's prior written approval. Therefore, all related documentation and a request for such inclusion should be submitted in hard copy to the CBA. In addition, the issued perpetual non-cumulative preference shares (hereinafter "preference shares") should be paid up, and in form and substance meet all the following criteria to qualify for their inclusion:

a) subordinated;
b) permanent; and,
c) free of mandatory fixed charges.

The CBA reserves the right to modify these criteria and/or impose additional criteria.

2. Subordination

Preference shares must be subordinated to depositors and unsecured creditors of the reporting institution. If preference shares are issued by a subsidiary or intermediate holding company for the funding of the reporting institution and are to qualify for capital at the consolidated entity (non-controlling interest), the terms and conditions of the issue, as well as the intercompany transfer, must ensure that investors are placed in the same position as if the instruments were issued by the reporting institution.

3. Permanence

To ensure that preference shares are permanent in nature, the following features are not permitted:

a) Retraction by the holder;
b) obligation for the issuer to redeem the shares;
c) redemption within the first five years of issuance; and
d) any step-up[1] representing a pre-set increase at a future date in the dividend (or distribution) rate.

[1] An increase over the initial rate after taking into account any swap spread between the original reference index and the new reference index.

Any conversion of the preference shares is subject to the CBA's prior written approval and:

a) redemption can only be for cash or the equivalent; and,
b) conversion privileges cannot be structured to effectively provide either a redemption of or return on the original investment.

Example

An issue would not be considered non-cumulative if it has a conversion feature that compensates for undeclared dividends or provides a return of capital.

4. Free of mandatory fixed charges

Preference shares should not include the following features:

a) cumulative dividends;
b) dividends influenced by the credit standing of the reporting institution;
c) compensation to preference shareholders other than a dividend; and
d) sinking or purchase funds.

2.2 ATTACHMENT B - CREDIT RATINGS AND ELIGIBILITY CRITERIA ECAI

1. Recognized ECAIs

For CoA reporting purposes, the CBA permits reporting institutions to recognize credit ratings from the following external credit assessment institutions (ECAIs) for capital adequacy calculations:

a) Standards & Poor's Corporation (S&P);
b) Moody's Investor Services (Moody's);
c) Fitch Rating Services (Fitch).

The CBA reserves the right to update the above listing of ECAIs. The CBA recognizes ECAIs subject to the ECAIs satisfying the eligibility criteria set out in paragraph 3 of this Attachment. The CBA may revoke its recognition of an ECAI if the CBA becomes aware that the ECAI no longer meets the criteria set out in paragraph 3.

2. Risk grades

2.1 Recognized long-term ratings and equivalent risk grades

Risk Grade	S&P	Moody's	Fitch
1	AAA AA+ AA AA-	Aaa Aa1 Aa2 Aa3	AAA AA+ AA AA-
2	A+ A A-	A1 A2 A3	A+ A A-
3	BBB+ BBB BBB-	Baa1 Baa2 Baa2	BBB+ BBB BBB-
4	BB+ BB BB- B+ B B-	Ba1 Ba2 Ba3 B1 B2 B3	BB+ BB BB- B+ B B-
5	CCC+ CCC- CC C D	Caa1 Caa2 Caa3 Ca C	CCC+ CCC- CC C D

In case a claim has no ECAI rating, that claim falls in risk grade 6 "unrated", for determining the risk weighted assets (RWA) and subsequent minimum capital requirement for credit risk in SS 1C *"Risk Weighted Assets - Standardized Credit Risk"* .

2.2 Recognized short-term ratings and equivalent risk grades Short-term ratings

Risk Grade	S&P	Moody's	Fitch
1	A-1+, A-1	P-1	F1+, F1
2	A-2	P-2	F2
3	A-3	P-3	F3
4	All short term ratings below A-3	NP	Below F3

3. Eligibility criteria

(Basel II paragraph 91)

The abovementioned ECAIs have been selected based on the following criteria:

a) **Objectivity:** The methodology for assigning credit assessments must be rigorous, systematic, and subject to some form of validation based on historical experience. Moreover, assessments must be subject to ongoing review and responsive to changes in financial condition. Before being recognized by the CBA, an assessment methodology for each market segment, including rigorous back testing, must have been established for at least one year and preferably three years.

b) **Independence:** An ECAI should be independent and should not be subject to political or economic pressures that may influence the rating. The assessment process should be as free as possible from any constraints that could arise in situations where the composition of the Board of Directors or the shareholders' structure of the assessment institution may be seen as creating a conflict of interest.

c) **International access/Transparency:** The individual assessment should be available to both domestic and foreign institutions with legitimate interests and at equivalent terms. In addition, the general methodology used by the ECAI should be publicly available.

d) **Disclosure:** An ECAI should disclose the following information: its assessment methodologies, including the definition of default, the time horizon, and the meaning of

each rating; the actual default rates experienced in each assessment category; and the transitions of the assessments, e.g. the likelihood of "AA" ratings becoming "A" over time.

e) **Resources:** An ECAI should have sufficient resources to carry out high quality credit assessments. These resources should allow for substantial ongoing contact with senior and operational levels within the entities assessed in order to add value to the credit assessments. Such assessments should be based on methodologies combining qualitative and quantitative approaches.

f) **Credibility:** To some extent, credibility is derived from the criteria above. In addition, the reliance on ECAIs external credit assessments by independent parties (investors, insurers, trading partners) is evidence of the credibility of the assessments of an ECAI. The credibility of an ECAI is also underpinned by the existence of internal procedures to prevent the misuse of confidential information. In order to be eligible for recognition, an ECAI does not have to assess firms in more than one country.

4. The Mapping process

Reporting institutions must apply the chosen ECAIs and their ratings consistently for each type of claim, for both risk weighting and risk management purposes. Reporting institutions are not allowed to "cherry-pick" the assessments provided by the different ECAIs.

Reporting institutions must disclose the ECAIs that they use for the risk weighting of their assets by type of claims, the risk weights associated with the particular rating grades as well as the aggregated risk weighted assets for each risk weight based on the assessments of each eligible ECAI.

5. Multiple assessments

(Basel II paragraphs 96-97)

(i) If there is only one assessment by an ECAI chosen by a reporting institution for a particular claim, that assessment should be used to determine the risk weight of the claim.

(ii) If there is more than one assessment by ECAIs chosen by a reporting institution which map into different risk weights, the higher risk weight should be applied.

6. Issuer versus issues assessment

(Basel II paragraphs 99-101)

Where a reporting institution invests in a particular issue that has an issue-specific assessment, the risk weight of the claim will be based on this assessment. Where the reporting institution's claim is not an investment in a specific assessed issue, the following general principles apply.

a) In circumstances where the borrower has a specific assessment for an issued debt, but the reporting institution's claim is not an investment in this particular debt, a high quality credit assessment (one which maps into a risk weight lower than that which applies to an unrated claim) on that specific debt may only be applied to the reporting institution's unassessed claim if this claim ranks "*pari passu*" or senior to the claim with an assessment in all respects. If not, the credit assessment cannot be used and the un-assessed claim shall receive the risk weight for unrated claims.

b) In circumstances where the borrower has an issuer assessment, this assessment typically applies to senior unsecured claims on that issuer. Consequently, only senior claims on that issuer will benefit from a high quality issuer assessment. Other un-assessed claims of a highly assessed issuer will be treated as unrated. If either the issuer or a single issue has a low quality assessment (mapping into a risk weight equal to or higher than that which applies to unrated claims), an un-assessed claim on the same counterparty will be assigned the same risk weight as is applicable to the low quality assessment.

Whether the reporting institution intends to rely on an issuer- or an issue-specific assessment, the assessment must take into account and reflect the entire amount of credit risk exposure the reporting institution has with regard to all payments owed to it.[2]

In order to avoid any double counting of credit enhancement factors, no supervisory recognition of credit risk mitigation techniques will be taken into account if the credit enhancement is already reflected in the issue specific rating (see paragraph 114 of Basel II).

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[2] For example, if a reporting institution is owed both principal and interest, the assessment must fully take into account and reflect the credit risk associated with repayment of both principal and interest.

7. Domestic currency and foreign currency assessments

(Basel II paragraph 102)

Where unrated exposures are risk weighted based on the rating of an equivalent exposure to that borrower, the general rule is that foreign currency ratings would be used for exposures in foreign currency. Domestic currency ratings, if separate, would only be used to risk weight claims denominated in the domestic currency.[3]

8. Short-term/long-term assessments

(Basel II paragraphs 103-106)

For risk weighting purposes, short-term assessments are deemed to be issue-specific. They can only be used to derive risk weights for claims arising from the rated facility. They cannot be generalized to other short-term claims, except under the conditions of paragraph 105 of Basel II. In no event can a short-term rating be used to support a risk weight for an unrated long-term claim.

Short-term assessment may only be used for short-term claims against Other Depository Corporations (ODCs) and corporates. The table below provides a framework for ODCs' exposures to specific short-term facilities, such as a particular issuance of commercial paper:

Credit assessment	A-1/P-1[4]	A-2/P-2	A-3/P-3	Others[5]
Risk weight	20%	50%	100%	150%

If a short-term rated facility attracts a 50% risk weight, unrated short-term claims cannot attract a risk weight lower than 100%. If an issuer has a short-term facility with an assessment that warrants a risk weight of 150%, all unrated claims, whether long-term or short-term, should also receive a 150% risk weight.

[3] However, when an exposure arises through a reporting institution's participation in a loan that has been extended, or has been guaranteed against convertibility and transfer risk, by certain multilateral development banks (MDBs), its convertibility and transfer risk can be considered by national supervisory authorities to be effectively mitigated. To qualify, MDBs must have preferred creditor status recognized in the market and be included in attachment D. In such cases, for risk weighting purposes, the borrower's domestic currency rating may be used instead of its foreign currency rating. In the case of a guarantee against convertibility and transfer risk, the local currency rating can be used only for the portion that has been guaranteed. The portion of the loan not benefiting from such a guarantee will be risk weighted based on the foreign currency rating.

[4] The notations follow the methodology used by Standard & Poor's and by Moody's Investor Service. The A-1 rating of Standard & Poor's includes both A-1+ and A-1-.

[5] This category includes all non-prime and B or C ratings.

As the CBA has decided to apply option 2 under the standardized approach to short-term interbank claims to ODCs in its jurisdiction, the interaction with specific short-term assessments is expected to be the following:

a) The general preferential treatment for short-term claims, as outlined in the instructions for SS 1C, applies to all claims on ODCs, of up to three months original maturity when there is no specific short-term claim assessment.
b) When there is a short-term assessment and such an assessment maps into a risk weight that is more favorable (i.e. lower) or identical to the one derived from the general preferential treatment, the short-term assessment should be used for the specific claim only. Other short-term claims would benefit from the general preferential treatment.
c) When a specific short-term assessment for a short term claim on an ODC maps into a less favorable (higher) risk weight, the general short-term preferential treatment for interbank claims cannot be used. All unrated short-term claims should receive the same risk weighting as the one implied by the specific short-term assessment.

When a short-term assessment is to be used, the reporting institution making the assessment needs to meet all of the eligibility criteria for recognizing ECAIs as presented in paragraph 3 “Eligibility Criteria” of this attachment, in terms of its short-term assessment.

9. Level of application of the assessment

(Basel II paragraph 107)

External assessments for one entity within a corporate group cannot be used to risk weight other entities within the same group.

10. Unsolicited ratings

(Basel II paragraph 108)

As a general rule reporting institutions should use solicited ratings from eligible ECAIs. However, the CBA allows reporting institutions to use *unsolicited* ratings from eligible ECAIs in the same way as solicited ratings. However, there may be the potential for ECAIs to use unsolicited ratings to put pressure on entities to obtain solicited ratings. Such behavior, when identified will cause the CBA to consider whether to continue considering such ECAIs as eligible (recognized) for capital adequacy purposes.

2.3 ATTACHMENT C - NATIONAL DISCRETION

Basel II contains a number of areas where national supervisors have discretion (choice) to apply a given provision, tailoring the requirement to best suit their particular markets and prudential approaches (the so called "**National Discretion**").

National discretion may be applied to the following areas:

a) Standardized approach to credit risk.
b) Credit risk mitigation.
c) Operational risk.
d) Market risk.

The CBA has applied national discretion is some cases. Reference is made to the table below:

Basel II [6] **Paragraph (June 2006 version)** **1**	**Basel II paragraphs subject to National Discretion**[7] **2**	**The CBA's decision** **3**
STANDARDISED APPROACH TO Credit Risk		
Claims on sovereigns		
54	At national discretion, a lower risk weight may be applied to banks' exposures to their sovereign Central Bank denominated in domestic currency and funded in that currency. Where this discretion is exercised, other national supervisory authorities may also permit their banks to apply the same risk	The CBA has applied a 0% risk weight to reporting institution's exposures to the Aruban Government denominated and funded in Aruban florin. Where this national discretion is exercised by another supervisory authority, reporting institutions may apply the risk weights prescribed by the other supervisory

[6] Column 1 includes the relevant paragraphs of the Basel II document.
[7] Column 2 includes the literal text of the Basel II document.

	weight to domestic currency exposures to this sovereign (or central bank) funded in that currency.	authority to any exposure to the central government or central bank of that jurisdiction that is denominated and funded in the currency of that jurisdiction. The reporting institution should provide the CBA with the information as to the exercised discretion by the other supervisory authority.
55	For the purpose of risk weighting claims on sovereigns, supervisors may recognize the country risk scores assigned by Export Credit Agencies (ECAs). To qualify, an ECA must publish its risk scores and subscribe to the OECD agreed methodology.	For risk weighting claims on foreign governments/ sovereigns, the CBA only recognizes the country risk scores assigned by ECAs provided that the ECA qualifies with the instructions set out in SS 1C.
56	Claims on the Bank for International Settlements, the International Monetary Fund, the European Central Bank and the European Community may receive a 0% risk weight.	Implemented.
Claims on (non-central) government public sector entities (PSEs)		
57	Claims on domestic public sector entities (PSEs) will be risk-weighted at national discretion, according to either option 1 or option 2 for claims on banks.	The CBA will risk weight claims on domestic PSEs according to Option 2 for claims on banks.
58	Subject to national discretion, claims on certain domestic PSEs may also be treated as claims on the sovereigns in whose jurisdictions the PSEs are established. Where this discretion is exercised, other national supervisors may allow their banks to risk weight claims on such PSEs	The CBA will exercise this national discretion for use on claims on non-Commercial PSEs of the Aruban government denominated and funded in the domestic currency. The CBA will allow reporting institutions to risk weight claims on certain foreign PSEs in the same manner as claims on

	in the same manner.	sovereigns.
Claims on banks		
60 61 62	There are two options for claims on banks. National supervisors will apply one option to all banks in their jurisdiction. Under the first option, all banks incorporated in a given country will be assigned a risk weight one category less favorable than that assigned to claims on the sovereign of that country. However, for claims on banks in countries with sovereigns rated BB+ to B- and on banks in unrated countries the risk weight will be capped at 100%. The second option bases the risk weighting on the external credit assessment of the bank itself with claims on unrated banks being risk-weighted at 50%. Under this option, a preferential risk weight that is one category more favorable may be applied to claims with an original maturity of three months or less, subject to a floor of 20%.	The CBA will apply option 2 for claims on reporting institutions, and apply the preferential risk weights to claims with an original maturity of three months or less, as set out in the Basel II provisions of paragraph 62.
65	Claims on securities firms may be treated as claims on banks provided these firms are subject to supervisory and regulatory arrangements comparable to those under this Framework (in particular, risk-based capital requirements). Otherwise such claims would follow the rules for claims on corporates.	The CBA will exercise this discretion, provided the securities firms are subject to supervisory and regulatory arrangements as set out in the instructions of SS 1C.

Claims on corporates		
67	Supervisory authorities should increase the standard risk weight for unrated claims where they judge that a higher risk weight is warranted by the overall default experience in their jurisdiction. As part of the supervisory review process, supervisors may also consider whether the credit quality of corporate claims held by individual banks should warrant a standard risk weight higher than 100%.	The CBA may require a standard risk weight of 150% for claims on un-rated other nonfinancial corporations (ONCs), if it judges that a higher risk weight is warranted by the overall default experience in Aruba. In addition, the CBA may require a risk weight higher than 100% for corporate claim(s), based on the credit risk of the corporate claim(s) held by individual reporting institutions. See SS 1C for further details.
68	At national discretion, supervisory authorities may permit banks to risk weight all corporate claims at 100% without regard to external ratings. Where this discretion is exercised by the supervisor, it must ensure that banks apply a consistent approach i.e. either to use ratings wherever available or not at all. To prevent "cherry-picking" of external ratings, banks should obtain supervisory approval before utilizing this option to risk weight all corporate exposures at 100%.	Reporting institutions are permitted, upon a written request and the CBA's approval, to apply a 100% risk weight. See SS 1C for further details.
Claims secured by residential property		
72	Lending fully secured by mortgages on residential property that is or will be occupied by the borrower, or that is rented, will be risk weighted at 35%. In applying the 35% risk weight, the supervisory authorities should satisfy	The CBA will apply a 35% and 50% risk weight to claims secured by mortgages on residential property and that meet the qualification criteria set out in the instructions of SS 1C and Attachment E.

	themselves, according to their national arrangements for the provision of housing finance, that this concessionary weight is applied restrictively for residential purposes and in accordance with strict prudential criteria, such as the existence of substantial margin of additional security over the amount of the loan based on strict valuation rules. Supervisors should increase the standard risk weight where they judge the criteria are not met.	If the bank does not hold information regarding the loan-to-value (LTV) for individual exposures or the exposure does not meet the abovementioned qualification criteria, a risk weight of 100% will apply to the whole exposure (net of specific provisions).
73	National supervisory authorities should evaluate whether the risk weights in paragraph 72 are considered to be too low based on the default experience for these types of exposures in their jurisdictions. Supervisors, therefore, may require banks to increase these risk weights as appropriate.	This evaluation has been conducted by the CBA and did not lead to changes in the risk-weights.
Other categories		
80	National supervisors may decide to apply a 150% or higher risk weight reflecting the higher risks associated with some other assets, such as venture capital and private equity investments.	A 150% risk weight applies for: • Investments in venture capital and private equity investments, if the CBA assesses that such exposure incorporate higher risks and requires higher risk weights. • Real estate and other assets acquired in settlement of debts previously contracted and not liquidated within 3 years.
81 (footnote 32)	However, at national discretion, gold bullion held in own vaults or on an	Implemented.

	allocated basis to the extent backed by bullion liabilities can be treated as cash and therefore risk-weighted at 0%. In addition, cash items in the process of collection can be risk-weighted at 20%.	
Use of external ratings		
108	As a general rule, banks should use solicited ratings from eligible ECAIs. National supervisory authorities may, however, allow banks to use unsolicited ratings in the same way as solicited ratings. However, there may be the potential for ECAIs to use unsolicited ratings to put pressure on entities to obtain solicited ratings. Such behavior, when identified, should cause supervisors to consider whether to continue recognizing such ECAIs as eligible for capital adequacy purposes.	The use of unsolicited ratings is allowed. However, there may be the potential for ECAIs to use unsolicited ratings to put pressure on entities to obtain solicited ratings. Such behavior, when identified will cause the CBA to consider whether to continue consider such ECAIs as eligible (recognized) for capital adequacy purposes.
CREDIT RISK MITIGATION		
171	Core market participants may include, at the discretion of the national supervisor, the following entities: (a) Sovereigns, central banks and PSEs; (b) Banks and securities firms; (c) Other financial companies (including insurance companies) eligible for a 20% risk weight in the standardized approach; (d) Regulated mutual funds that are subject to adequate capital or leverage requirements; (e) Regulated pension funds; and (f) Recognized clearing organizations.	The definition of core market participants in paragraph 171 of Basel II is used.

OPERATIONAL RISK		
654 (foot-note 105)	At national discretion, supervisors may adopt a more conservative treatment of negative gross income.	In any given year, negative gross income in any business line will not receive a capital charge (being a negative capital charge). Only positive gross income and thus positive capital charges will be considered. Thus, negative gross income in any business line may not offset positive gross income in other business lines.
663 (foot-note 108)	For other banks, these criteria (in paragraph 663) are recommended, with national discretion to impose them as requirements.	Footnote 108 refers to the additional criteria that international active banks must meet if they wish to use the standardized approach. The CBA will impose the criteria to all reporting institutions adopting the Standardized Approach as set out in Attachment I-1 "*Operational Risk*".
MARKET RISK		
683 (V)	In the same way as for credit risk, the capital requirements for market risk are to apply on a worldwide consolidated basis. Where appropriate, national authorities may permit banking and financial entities in a group which is running a global consolidated book and whose capital is being assessed on a global basis to report short and long positions in exactly the same instrument (e.g. currencies, commodities, equities or bonds), on a net basis, no matter where they are booked. Moreover, the offsetting rules as set out in this section may also be applied on a consolidated basis.	The CBA will exercise this discretion, unless the CBA requires otherwise. Therefore, a reporting institution may report accordingly, subject to the conditions specified in Attachment J "*Market Risk Measurement Framework*".

	Nonetheless, there will be circumstances in which supervisory authorities demand that the individual positions be taken into the measurement system without any offsetting or netting against positions in the remainder of the group. This may be needed, for example, where there are obstacles to the quick repatriation of profits from a foreign subsidiary or where there are legal and procedural difficulties in carrying out the timely management of risks on a consolidated basis. Moreover, all national authorities will retain the right to continue to monitor the market risks of individual entities on a non-consolidated basis to ensure that significant imbalances within a group do not escape supervision. Supervisory authorities will be especially vigilant in ensuring that banks do not pass positions on reporting dates in such a way as to escape measurement.	
710 (i) 710 (i)	The category "government" will include all forms of government paper including bonds, treasury bills and other short-term instruments, but national authorities reserve the right to apply a specific risk weight to securities issued by certain foreign governments, especially to securities denominated in a currency other than that of the issuing government. Including, at national discretion, local and regional	The CBA will exercise the discretion, as set out in Attachment J "*Market Risk Measurement Framework*".

(footnote 118)	governments subject to a zero credit risk weight in this Framework.	
711	When the government paper is denominated in the domestic currency and funded by the bank in the same currency, at national discretion a lower specific risk charge may be applied.	The CBA applied a 0% specific risk charge as set out in Attachment J "*Market Risk Measurement Framework*".
718 (xlii)	A bank doing negligible business in foreign currency and which does not take foreign exchange positions for its own account may, at the discretion of its national authority, be exempted from capital requirements on these positions provided that: - Its foreign currency business, defined as the greater of the sum of its gross long positions and the sum of its gross short positions in all foreign currencies, does not exceed 100% of eligible capital as defined in paragraphs 49(xxi) and 49(xxii); and - Its overall net open position as defined in the paragraph above does not exceed 2% of its eligible capital as defined in paragraphs 49(xxi) and 49(xxii)	Reporting institutions are exempted from capital requirements if they meet the criteria set out in Attachment J "*Market Risk Measurement Framework".*
718 (xlvii)	For the maturity ladder approach and the simplified approach, 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 may as a general rule not be offset in this fashion.	The CBA allows netting between different subcategories as set out further in Attachment J "*Market Risk Measurement Framework".*

	Nevertheless, national authorities will have discretion to permit netting between different sub-categories of the same commodity in cases where the subcategories are deliverable against each other. They can also be considered as off-settable if they are close substitutes against each other and a minimum correlation of 0.9 between the price movements can be clearly established over a minimum period of one year. However, a bank wishing to base its calculation of capital charges for commodities on correlations would have to satisfy the relevant supervisory authority of the accuracy of the method which has been chosen and obtain its prior approval. Where banks use the models approach they can 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 rates in different currencies.	

2.4 ATTACHMENT D - HIGHLY RATED MULTILATERAL DEVELOPMENT BANKS (MDBs) (Criteria[8] for 0% risk weight)

(Basel paragraph 59)

1. The eligibility criteria for MDBs risk weighted at 0% are:

a) Very high quality long-term issuer ratings, i.e. a majority of an MDB's external assessments must be AAA;

b) the MDB's shareholder structure is comprised of a significant proportion of sovereigns with long-term issuer credit assessments of AA- or better, or the majority of the MDB's fund-raising are in the form of paid-in equity/capital and there is little or no leverage;

c) strong shareholder support demonstrated by the amount of paid-in capital contributed by the shareholders; the amount of further capital the MDBs have the right to call, if required, to repay their liabilities; and continued capital contributions and new pledges from sovereign shareholders;

d) adequate level of capital and liquidity (a case-by-case approach is necessary in order to assess whether each MDB's capital and liquidity are adequate); and

e) strict statutory lending requirements and conservative financial policies, which would include among other conditions a structured approval process, internal creditworthiness and risk concentration limits, (per country, sector, and individual exposure and credit category), large exposures approval by the board or a committee of the board, fixed repayment schedules, effective monitoring of use of proceeds, status review process, and rigorous assessment of risk and provisioning to loan loss reserve.

(Basel II footnote 24)

2. MDBs currently eligible for a 0% risk weight are:

a) The World Bank Group comprised of the International Bank for Reconstruction and Development (IBRD) and the International Finance Corporation (IFC);

b) The Asian Development Bank (ADB);

c) The African Development Bank (AfDB);

d) The European Bank for Reconstruction and Development (EBRD);

[8] The criteria are established by the Basel Committee on Banking Supervision, who will continue to evaluate eligibility on a case by case basis.

e) The Inter-American Development Bank (IADB);

f) The European Investment Bank (EIB);

g) The European Investment Fund (EIF);

h) The Nordic Investment Bank (NIB);

i) The Caribbean Development Bank (CDB);

j) The Islamic Development Bank (IDB), and

k) The Council of Europe Development Bank (CEDB).

2.5 ATTACHMENT E - RESIDENTIAL MORTGAGE LOANS

(Qualification criteria)

1. A loan qualifies as a residential mortgage loan if it meets all the following criteria:
   - a) it is secured by mortgage on the residence which will be or is occupied by the borrower, or is the only residence that will be or is rented by the borrower;
   - b) there is an independent appraisal of the underlying residence;
   - c) the balance of the loan does not exceed 70% of the recent appraised market value (loan-to-value ratios "LTV's" of up to and including 70%) of the residence; and,
   - *d)* it is not classified as "Nonperforming".

2. If the borrower has more than one residence that is rented out or that will be rented out, the loans related to those residences do not qualify as residential mortgage.

3. To determine the LTV ratio, the abovementioned balance to consider is the balance of the loan net of specific provisions, compensations, and any amount of the loan that is guaranteed by a qualifying mortgage insurer.

4. A qualifying mortgage insurer is a mortgage insurer that meets the eligibility criteria of the CBA as set out in attachment E-2 "Qualifying Mortgage Insurer".

5. In case a borrower has more loans secured by the same residence, the total of all these loans must be measured against the above criteria.

6. Reporting institutions should provide for an adequate execution of the appraisal process, ensuring that the value of the residence is determined carefully and objectively. To guarantee an objective appraisal, the expert performing the appraisal should not have any direct or indirect interest in any sale or purchase transaction that relate to the loan. The appraisal report should contain sufficient information to permit a check of the appraisal for carefulness and objectivity.

An appraisal is considered to be a "recent" appraisal if it is performed at the time of granting the mortgage loan or a reappraisal on renewal of the loan, or an updated appraisal when prompted by movements in relevant real estate market values.

7. A loan does not qualify as a residential mortgage loan if it does not comply with all qualifying criteria. Therefore, any residential mortgage net of specific provisions, that is classified as "Nonperforming", should be reported in the section Nonperforming loans in SS 1C "Risk weighted assets standardized credit risk.

2.6 ATTACHMENT F - QUALIFYING MORTGAGE INSURERS

1. The criteria for a mortgage insurer to qualify for the purpose of calculating the Loan-to-value (LTV) ratio in the case of residential mortgage loans are:

a) the mortgage insurer must be subject to the supervision of the CBA. In case of a foreign insurer, supervision by the foreign supervisor must be at least equivalent to the supervision executed by the CBA;
b) the insurer should comply with the solvency requirements of the CBA. In case of a foreign insurer, supervision by the foreign supervisor must comprise solvency requirements at least equivalent to those of the CBA;
c) the insurer must have a Supervisory Board of at least 3 members, all being natural persons, and have at least one local Managing Board member;
d) Managing and Supervisory Board members are subject to the CBA's integrity and suitability assessment; and
e) the insurer must have written procedures that cover at least: underwriting, administration and claim procedures.

2.7 ATTACHMENT G - CATEGORIES OF OFF-BALANCE SHEET INSTRUMENTS AND CREDIT CONVERSION FACTORS

1. Credit Conversion Factors (CCF)

The face amount (notional principal amount) of off-balance sheet instruments does not always reflect the amount of credit risk in the instrument. To approximate the potential credit exposure of non-derivative instruments, the notional amount is multiplied by the appropriate CCF to derive a **credit equivalent amount.** The CCFs and the categories of off-balance sheet items that are subject to these CCFs are:

(Basel II Para 83, 84, 85)

2. Off-balance sheet items subject to a 100% CCF:

a) direct credit substitutes, e.g. general guarantees of indebtedness (including standby letters of credit serving as financial guarantees for loans and securities) and acceptances (including endorsements with the character of acceptances);
b) sale and repurchase agreements and assets sales with recourse[9], where the credit risk remains with the reporting institution;
c) lending of the reporting institutions' securities or the posting of securities as collateral by the reporting institution, including instances where these arise out of repo-style transactions (i.e. repurchase/reverse repurchase and securities lending/securities borrowing transactions);
d) forward asset purchases, forward forward deposits and partly-paid shares and securities[10], which represent commitments with certain drawdown (exclude forward agreements that are reported as derivative contracts);
e) all other contingent liabilities;
f) pending litigation; and,
g) loan and lease commitments with certain drawdown.

[9] These items are to be weighted according to the type of asset and not according to the type of counterparty with whom the transaction has been entered into.
[10] Idem as footnote 5

3. Off-balance sheet items subject to a 50% CCF:

a) commitments with an original maturity over one year;
b) note issuance facilities (NIFs) and revolving underwriting facilities (RUFs); and
c) performance related contingencies.

4. Off-balance sheet items subject to a 20% CCF:

a) commitments with an original maturity up to one year; and
b) short-term, self-liquidating, trade letters of credit arising from the movement of goods (e.g. documentary credits collateralized by the underlying shipment) to both issuing and confirming reporting institutions.

5. Off-balance sheet items subject to a 0% CCF:

a) commitments that are unconditionally cancellable at any time by the reporting institution without prior notice; and
b) commitments that effectively provide for automatic cancellation due to deterioration in a borrower's creditworthiness.

(Basel II paragraph 86)

6. Where there is an undertaking to provide a commitment on an off-balance sheet item, reporting institutions are to apply the lower of the two applicable CCFs.

2.8 ATTACHMENT H - DERIVATIVE CONTRACTS (calculation of the credit equivalent amount)

Current exposure method

(Basel II, Annex 4, section VII paragraphs 91 – 92(ii))

1. Reporting institutions must use the current exposure method to determine the credit equivalent amount (CEA) of derivatives. The current exposure method is to be applied to over the counter derivatives only, which are not covered by an eligible bilateral netting agreement as set out in Annex 4 of the Basel II Framework.

(Basel Annex 4, paragraph 92(i))

2. Under the current exposure method, reporting institutions should calculate the current replacement cost by marking contracts to market, thus capturing the current exposure without any need for estimation and then adding a factor (the "add-on") to reflect the potential future exposure over the remaining life of the contract.

In order to calculate the CEA of these instruments under this current exposure method, a reporting institution would sum:

a) The total replacement cost (obtained by "marking to market") of all its contracts with positive value; and
b) an amount for potential future credit exposure calculated on the basis of the total notional principal amount of its book, split by residual maturity as follows:

Table 2.8.1: Current exposure method market-related credit conversion factors

	Type of underlying value				
	Interest rates	Currency and gold	Equities	Precious metals other than gold	Other commodities
Remaining term					
≤ 1 year	0.0%	1.0%	6.0%	7.0%	10.0%
> 1 year ≤ 5 years	0.5%	5.0%	8.0%	7.0%	12.0%
> 5 years	1.5%	7.5%	10.0%	8.0%	15.0%

2.1 The replacement value is determined by assigning a market value to the contract ('marking to market'). If this market value is positive, the replacement value is equal to the market value. If this market value is nil or negative, the replacement value is nil. A positive market value can be defined as the income or amount which the institution would lose in the event of non-performance by the counterparty. The calculation of the market value of foreign-exchange contracts and similar forward contracts is based on the exchange rate of the remaining term. Positive market values expressed in foreign currencies are translated into reporting currency units at the spot rate on the reporting date. The same volatility may be applied in the valuation of options contracts with the same term and underlying value but different exercise prices.

2.2 The potential future credit exposure for each contract is determined by multiplying the notional principal amount of each contract (not only the contract with a positive value) by the relevant CCF.

2.3 Notes with respect to table 2.8.1:

a) For contracts with multiple exchanges of principal, the factors are to be multiplied by the number of remaining payments in the contract.
b) For contracts that are structured to settle outstanding exposure following specified payments 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 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%.
c) 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".
d) No potential future credit exposure would be calculated for single currency floating/floating interest rate swaps; the credit exposure on these contracts would be evaluated solely on the basis of their mark-to-market value.

<u>(Basel II Annex 4, section VII paragraph 92(ii))</u>

2.4 Potential future credit exposure must be based on effective rather than apparent notional amounts. In the event that the stated notional amount of a contract is leveraged or enhanced by the structure of the transaction, a reporting institution must use the effective notional amount when calculating potential future credit exposure.

For example, a stated notional amount of one million dollars with payments based on an internal rate of two times the bank bill rate would have an effective notional amount of two million dollars.

3. Risk weighting

(Basel II, Annex 4, section VII, paragraph 96(vi))

Once the reporting institution has calculated the CEAs they are to be weighted according to the category of counterparty in the same way as in the main framework.

2.9 ATTACHMENT I-1 - OPERATIONAL RISK

I. INTRODUCTION

1. This attachment contains the details of the measurement methodologies of the Basel II Framework for operational risk and their respective capital charges, and the approaches that the CBA allows reporting institutions to use.

II. DEFINITION OPERATIONAL RISK

(Basel II paragraph 644)

1. Operational risk is defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. This definition includes legal risk[11], but excludes strategic and reputational risk.

III. MEASUREMENT METHODOLOGIES

(Basel II paragraph 645)

1. Based on the Basel II framework, the following methods for calculating operational risk capital charges in a continuum of increasing sophistication and risk sensitivity:

a) Basic Indicator Approach (BIA);
b) Standardized Approach (SA); and
c) Alternative Standardized Approach (ASA).

Until further notice by the CBA, reporting institutions should report their operational risk using only the Basic Indicator Approach.

(Basel II paragraphs 646 and 647)

2. Reporting institutions are encouraged to move from the BIA towards the SA as they develop more sophisticated operational risk measurement systems and practices that are appropriate for their risk profile.

Reporting institutions with significant operational risk exposures (for example, specialized processing banks) are expected to use an approach that is more sophisticated than the BIA.

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[11] Legal risk includes, but is not limited to, exposure to fines, penalties, or punitive damages resulting from supervisory actions, as well as private settlements.

(Basel II paragraph 648)

3. Without the CBA's prior written approval, a reporting institution will not be allowed to choose to revert to the BIA once the CBA approved the use of the SA or ASA by the institution. However, if the CBA determines that a reporting institution using the Standardized Approach or the Alternative Standardized Approach no longer meets the qualifying criteria for the approach, it may require the reporting institution to revert to the BIA for some or all of its operations, until the reporting institution meets the conditions specified by the CBA for returning to the SA or ASA.

IV. APPROACHES FOR CoA REPORTING

A. The Basic Indicator Approach (BIA)

(Basel II paragraph 649)

1. Under the BIA, reporting institutions must hold a capital charge for operational risk equal to the average over the previous three years of a fixed percentage (denoted alpha) of positive annual gross income[12] (GI). Figures for any year in which annual gross income is negative or zero should be excluded from both the numerator and denominator when calculating the average[13]. The total operational risk capital charge will be calculated as follows:

$$K_{BIA} = [\sum(G_{1.....N} \times \alpha)]/n$$

Where:

K_{BIA} = the capital charge under the Basic Indicator Approach.

GI = annual gross income, where positive, over the previous three years.

N = number of the previous three years for which gross income is positive.

α = 15%, as set by the Basel Committee, relating the industry wide level of required capital to the industry wide level of the indicator.

[12] Gross income is the exposure indicator.

[13] In case of a continued negative gross income, the CBA will consider if supervisory action is required.

(Basel II paragraph 650)

2. According to Basel II, gross income is defined as net interest income plus net non-interest income. This measure should:

a) be gross of any provisions (e.g. for unpaid interest);

b) be gross of operating expenses, including fees paid to outsourcing service providers[14];

c) exclude realized profits/losses from the sale of securities in the banking book[15]; and

d) exclude extraordinary or irregular items as well as income derived from insurance.

3. For calculating operational risk under the BIA, the CBA defines Gross income as the total of the CoA accounts/items:

a) 4000 000 Net Interest Income;

b) 5000 000 Net Fees and Commission Income;

c) 6100 000 Dividend Income on Investments;

d) 6201 100 Realized Gains/(Losses) on Financial Assets measured at fair value;

e) 6202 100 Realized Gains/(Losses) on Financial Liabilities measured at fair value;

f) 6203 000 Realized Gains/(Losses) on Financial Assets and Liabilities measured at amortized costs;

g) 6204 000 Share of the Profit/(Loss) of entities accounted for using the equity method;

h) 6205 000 Gains / (Losses) on Derivatives Financial Assets and Liabilities; and

i) 6206 000 Gains/ (Losses) on foreign currencies.

4. Reporting institutions should complete the SS 1F-1 "*Risk Weighted Assets Basic Indicator Approach - Operational Risk*" in accordance with the instructions set out in chapter 6 of the CoA manual - Main document. For CAR purposes, the calculated operational risk charge under the BIA is converted to a risk weighted asset equivalent amount.

Until further notice by the CBA, reporting institutions must report their operational risk using the BIA.

[14] In contrast to fees paid for services that are outsourced, fees received by reporting institutions that provide outsourcing services shall be included in the definition of gross income.

[15] Realized profits/losses from securities classified as "held to maturity" and "available for sale", which typically constitute items of the banking book (e.g. under certain accounting standards), are also excluded from the definition of gross income.

B. The Standardized Approach ("SA")

(Basel II paragraph 660)

1. In order to qualify for using the SA, reporting institutions must satisfy the CBA that, at a minimum:

a) Its Managing Board and senior management, as appropriate, are actively involved in the oversight of the operational risk management framework;
b) it has an operational risk management system that is conceptually sound and is implemented adequately; and
c) it has sufficient resources in the use of the approach in the major business lines as well as the control and audit areas.

(Basel II paragraph 661)

2. The CBA retains the right on a period of initial monitoring of a reporting institution's SA before it can be used for regulatory capital purposes.

(Basel II paragraph 662)

3. In order to use the SA, reporting institutions must meet the following qualifying criteria and conditions:

a) develop specific policies and have documented criteria for mapping their gross income for current business line and activities in the appropriate business lines of the standardized framework, in accordance with Attachment I-3 "*Guidelines for business line mapping under the Standardized and Alternative Standardized Approach*" ; and
b) the criteria must be reviewed and adjusted for new or changing business activities as appropriate.

(Basel II paragraph 652)

4. In the SA the reporting institutions' activities are divided into eight business lines:

a) Corporate finance,
b) trading & sales,
c) retail banking,
d) commercial banking,
e) payment & settlement,
f) agency services,

g) asset management, and
h) retail brokerage.

The business lines are defined in detail in attachment I-2 "*Mapping of Business Lines*".

(Basel II paragraph 653)

5. Within each business line, gross income is a broad indicator that serves as a proxy for the scale of business operations and thus the likely scale of operational risk exposure within each of these business lines. Under the SA gross income is measured for each business line, not the whole institution, i.e. in corporate finance, the indicator is the gross income generated in the corporate finance business line.

6. The capital charge for each business line is calculated by multiplying gross income by a factor (denoted beta) assigned to the business line. Beta serves as a proxy for the industry-wide relationship between the operational risk loss experience for a given business line and the aggregate level of gross income for that business line.

(Basel II paragraph 654)

7. The total capital charge is calculated as the three-year average of the simple summation of the regulatory capital charges across each of the business lines in each year. Based on national discretion, the CBA has adopted the following: In any given year negative gross income[16] in any business line will not receive a capital charge. Only positive gross income and thus positive capital charges will be considered.

$$\mathbf{K_{TSA}} = \{\textstyle\sum_{\text{years } 1\text{-}3} \max [\sum (GI_{1\text{-}8} \times \beta_{1\text{-}8}), 0]\}/3$$

Where:

$\mathbf{K_{TSA}}$ = the capital charge under the Standardized Approach.

$\mathbf{GI_{1\text{-}8}}$ = annual gross income in a given year, as defined in the Basic Indicator Approach, for each of the eight business lines.

$\boldsymbol{\beta_{1\text{-}8}}$ = a fixed percentage, set by the Basel Committee, relating the level of required capital to the level of the gross income for each of the eight business lines.

[16] In case of a continued negative gross income in business lines, the CBA will consider if supervisory action is required.

The values of the betas are detailed below.

Business lines	**Beta factors**
Corporate finance (β1)	18%
Trading and sales (β2)	18%
Retail banking (β3)	12%
Commercial banking (β4)	15%
Payment and settlement (β5)	18%
Agency services (β6)	15%
Asset management (β7)	12%
Retail brokerage (β8)	12%

8. Reporting institutions should complete SS 1F-2 "*Risk Weighted Assets Standardized Approach - Operational Risk"* in accordance with the instructions set out in chapter 6 of the CoA manual – Main document. For CAR purposes, the calculated operational risk charge under the SA is converted to a risk weighted asset equivalent amount.

C. The Alternative Standardized Approach ("ASA")

(Basel II footnote 104)

1. Reporting institutions may choose to use the ASA to calculate the operational risk capital charge. The ASA is a variation of the SA, whereby an alternative indicator is used to calculate the capital requirement for the retail and commercial banking business lines.

2. In order to use the ASA reporting institutions must meet the criteria and conditions set out in section B "The Standardized Approach".

3. Under the ASA, the operational risk capital charge/methodology is the same as for the SA (see above sections III.B 1 through 9)[17], except for two business lines — retail banking and commercial banking. For these business lines, loans and advances — multiplied by a fixed factor 'm' — replaces gross income as the exposure indicator. The betas for retail and commercial banking are

[17] In case of a continued negative gross income in business lines, the CBA will consider if supervisory action is required.

unchanged from the SA. The ASA operational risk capital charge for retail banking (with the same basic formula for commercial banking) can be expressed as:

KRB = β*RB* x m x LARB

Where:
KRB is the capital charge for the retail banking business line.
βRB is the beta for the retail banking business line.
LARB is total outstanding retail loans and advances (non-risk weighted and gross of provisions and the application of the rules of compensation as set out in attachment I-1 and I-2), averaged over the past three years.
m is 0.035.

For the purposes of the ASA, total loans and advances:

- in the retail banking business line consists of the total drawn amounts in the following credit portfolios: retail, and purchased retail receivables;
- for commercial banking, consists of the total drawn amounts in the following credit portfolios: corporate, sovereign, bank, specialized lending, SMEs and purchased corporate receivables, and of the book value of securities held in the banking book.

4. As under the SA, the total capital charge for the ASA is calculated as the simple summation of the regulatory capital charges across each of the eight business lines.

5. Reporting institutions should complete the SS 1F-3 "*Risk Weighted Assets Alternative Standardized Approach* - *Operational Risk"* in accordance with the instructions set out in chapter 6 of the CoA manual - Main document. For CAR purposes, the calculated operational risk charge under the ASA is converted to a risk weighted asset equivalent amount.

2.10 ATTACHMENT I-2 MAPPING OF BUSINESS LINES

The attachment is found as the Excel sheet "*Business line mapping Op. Risk*" in the Excel file CoA Reporting Sheets.

2.11 ATTACHMENT I-3 - GUIDELINES FOR BUSINESS LINE MAPPING STANDARDIZED AND ALTERNATIVE STANDARDIZED APPROACH

Reference: Annex 8 Basel II Framework

1. The guidelines for business line mapping for the SA and ASA are as follows:
   a) All activities must be mapped into the eight level 1 business lines in a mutually exclusive and jointly exhaustive manner;
   b) Any activity which cannot be readily mapped into the business line framework, but which represents an ancillary function to an activity included in the framework, must be allocated to the business line it supports. If more than one business line is supported through the ancillary activity, an objective mapping criteria must be used consistently and the reasons thereof recorded by the reporting institution;
   c) When mapping gross income, if an activity cannot be mapped into a particular business line then the business line yielding the highest capital charge must be used. The same business line equally applies to any associated ancillary activity;
   d) Reporting institutions may use internal pricing methods to allocate gross income between business lines provided that total gross income for the reporting institution (as would be recorded under the BIA) still equals the sum of gross income for the eight business Lines;
   e) The mapping of activities into business lines for operational risk capital purposes must be consistent with the definitions of business lines used for regulatory capital calculations in other risk categories, i.e. credit and market risk. Any deviations from this principle must be clearly motivated and documented;
   f) The mapping process used must be clearly documented. In particular, written business line definitions must be clear and detailed enough to allow third parties to replicate the business line mapping. Documentation must, among other things, clearly motivate any exceptions or overrides and be kept on record;
   g) Processes must be in place to define the mapping of any new activities or products;
   h) Senior management is responsible for the mapping policy (which is subject to the approval by the Managing Board); and
   i) The mapping process to business lines must be subject to independent review.

2.12 ATTACHMENT J - MARKET RISK MEASUREMENT FRAMEWORK

I. Market risk measurement framework

1. This attachment contains detailed information on the market risk measurement framework and the capital adequacy requirements for reporting institutions. These reports aim to ensure that an institution holds sufficient regulatory capital.

Definition market risk

(Basel II paragraph 683 (i))

2. Market risk is defined as the risk of losses in on and off-balance sheet positions arising from movements in market prices. The market risks are:

a) Interest rate risk. This is the risk of holding or taking positions in debt securities and other interest rate related instruments in the trading book.

b) Equity position risk. This is the risk of holding or taking positions in equities in the trading book.

c) Foreign exchange risk. This is the risk of holding or taking positions in foreign currencies, including gold throughout the reporting institution.

d) Commodities risk. This is the risk of holding or taking positions in commodities, including precious metals, but excluding gold throughout the reporting institution's operations.

3. The market risk measurement framework in this document is based on section VI Market Risk of Basel II, and applies in accordance with the level(s) of reporting that will be applicable to the reporting institution. Unless indicated otherwise in this attachment, a reference to paragraphs 683(i) through 718 (LViii) refers to mentioned paragraphs in Basel II and the use thereof in this attachment.

Methods to measure market risks according to Basel II

(Basel II paragraphs 701(i) & 701 (ii))

4. In measuring the market risk of a bank, Basel II presents two choices of broad methodologies which are permitted, subject to the approval of the national authorities.

I. "The Standardized measurement method" is to measure the risks in a standardized manner, using the measurement frameworks as explained below. These frameworks deal with the four risks, i.e. interest rate, equity position, foreign exchange and commodities risk. The

capital requirement under this method will be the sum of the capital charges calculated in accordance with the paragraphs in this section.

II. The alternative methodology, "the Internal Models Approach", is subject to the fulfillment of certain conditions and the use of which is therefore conditional upon the explicit approval of the bank's supervisory authority. This method allows banking institutions to use risk measures derived from their own internal risk management models and is subject to seven sets of conditions as prescribed in paragraph 701 (ii).

Method to measure market risk permitted by the CBA

(Basel II paragraphs 701 (iii) & 709 (iii))

6. The method which the CBA permits reporting institutions to measure their market risk is the Standardized measurement method ("Standard method"). This method uses a "building-block" approach in which specific risk and the general market risk arising from debt and equity positions are calculated separately.

(Basel II paragraph 701(v))

7. Each reporting institution subject to capital charges for market risk should monitor and report the level of risk against which a capital requirement is to be applied. The reporting institution's overall minimum capital requirement will be:

a) the credit risk requirements set out in chapter 6.4, 6.5 and 6.6 of the CoA manual - Main document, and the attachments mentioned in those chapters, - excluding debt and equity securities in the trading book and all positions in commodities, but including the credit counterparty risk on all over-the-counter derivatives whether in the trading or the banking books;
b) the capital charges for operational risk set out in chapter 6.7, 6.8 and 6.9 of the abovementioned CoA manual and the attachments referred to in those chapters; and
c) the capital charges for market risks set out in chapter 6.10 of the abovementioned CoA manual, and the attachments referred to in the respective chapter.

(Basel II paragraph 701(vi))

8. The CBA expects reporting institutions:

a) to include all transactions, including forward sales and purchases, in the calculation of capital requirements as from the date on which they were entered into;

b) to manage the market risk in their trading book in such a way that the capital requirements are being met on a continuous basis, i.e. at the close of each business day;

c) not to "window-dress" e.g. by showing significantly lower market risk positions on reporting dates;

d) to maintain strict risk management systems to ensure that intra-day exposures are not excessive;

e) to meet the capital requirements at all time, and in case of non-compliance to inform the CBA of the immediate measures to be taken to rectify the situation.

II. Scope and coverage of the capital charges

(Basel II paragraph 683 (ii))

1. The capital charges for interest rate related instruments and equities will apply to the current trading book items prudently valued by reporting institutions as set out in sub-section 6.13 (paragraphs 690-701). The definition of trading book is set out in the following paragraphs 5 through 12 (paragraphs 685 – 689(iii)).

(Basel II paragraph 683 (iii))

2. The capital charges for foreign exchange risk and for commodities risk shall apply to a reporting institutions' total currency and commodity positions, subject to some discretion to exclude structural foreign exchange positions. Some of these positions will be reported and evaluated at market value, but some may be reported and evaluated at book value.

(Basel II paragraph 683 (v))

3. The capital charges for market risk should be applied on a consolidated basis.

(Basel II paragraph 683(v))

4. Unless the CBA requires otherwise, a reporting institution and financial entities in a group (the institution and foreign branches and subsidiaries) which is running a global consolidated book and whose capital is being managed centrally and assessed on a global basis may report short and long positions in exactly the same instruments taken within the institution and foreign branches and subsidiaries (e.g. currencies, commodities, equities or bonds), on a net basis, no matter where they are booked[18], subject to the following conditions:

[18] The positions of less than wholly-owned subsidiaries would be subject to the generally accepted accounting

a) positions taken in a foreign branch or foreign subsidiary **may only be netted** or offset against positions taken in Aruba, other foreign branches and foreign subsidiaries of the reporting institution, if the position-taking of that foreign branch or foreign subsidiary is monitored by the reporting institution's office in Aruba on a daily basis;

b) individual positions taken in a foreign branch or foreign subsidiary **must not be netted** or offset against positions taken in Aruba, other foreign branches and foreign subsidiaries where there are obstacles to the quick repatriation of profits from that foreign branch or foreign subsidiary or from foreign transactions taken by the reporting institution itself; and

c) positions taken in a foreign branch or foreign subsidiary must not be netted or offset against positions taken in Aruba, other foreign branches and foreign subsidiaries where there are legal and procedural difficulties in carrying out the timely management of risks on a consolidated basis.

Where the above conditions do not allow for positions in a foreign branch or foreign subsidiary to be netted or offset, a reporting institution must calculate the market risk charge for that foreign branch or foreign subsidiary separately. The reporting institution must calculate the total market risk charge as the sum of the charge calculated for positions which may be netted according to mentioned conditions and the charges calculated for each of the foreign branches and/or subsidiaries for which the mentioned conditions do not allow netting.

Moreover, the CBA retains the right to continue to monitor the market risks of individual reporting institutions on a non-consolidated basis.

(Basel II paragraph 685)

5. A 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. In addition, positions should be frequently and accurately valued, and the portfolio should be actively managed.

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principles in the country where the parent company is supervised.

(Basel II paragraph 687)

6. 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 and market making.

(Basel II paragraph 687 (i))

7. Reporting institutions must have clearly defined policies and procedures for determining which exposures to include in, and to exclude from, the trading book for purposes of calculating their regulatory capital, to ensure compliance with the criteria for trading book set forth in this section and taking into account the reporting institution's risk management capabilities and practices. Compliance with these policies and procedures must be fully documented and subject to periodic internal audit.

(Basel II paragraph 687 (ii))

8. These policies and exposures should, at a minimum, address the general considerations listed below. The list below is not intended to provide a series of tests that a product or group of related products must pass to be eligible for inclusion in the trading book. Rather, the list provides a minimum set of key points that must be addressed by the policies and procedures for overall management of a firm's trading book:

a) The activities the reporting institution considers to be trading and as constituting part of the trading book for regulatory capital purposes;
b) The extent to which an exposure can be marked-to-market daily by reference to an active, liquid two-way market;
c) The extent to which the reporting institution can and is required to generate valuations for the exposure that can be validated externally in a consistent manner;
d) The extent to which legal restrictions or other operational requirements would impede the reporting institution's ability to effect an immediate liquidation of the exposure;
e) The extent to which the reporting institution is required to, and can, actively risk manage the exposure within its trading operations; and
f) The extent to which the reporting institution may transfer risk or exposures between the banking and the trading books and criteria for such transfers.

(Basel II paragraph 688)

9. In order for the positions to be eligible to receive trading book capital treatment, the reporting institution must have the following basic documents in place:

a) a clearly documented trading strategy for the position/instrument or portfolios, approved by senior management (which would include expected holding horizon); and

b) clearly defined policies and procedures for the active management of the position which must include:

   i. positions are 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;

   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 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, sizes of positions traded in the market, etc.

c) clearly defined policy and procedures to monitor the positions against the reporting institution's trading strategy including the monitoring of turnover and stale positions in the reporting institution's trading book.

(Basel II paragraph 689 (i))

10. When a reporting institution hedges a banking book credit risk exposure using a credit derivative booked in its trading book (i.e. using an internal hedge), the banking book exposure is not deemed to be hedged for capital purposes unless the reporting institution purchases from an eligible third party protection provider a credit derivative meeting the requirements of credit risk mitigation purposes of paragraph 191 in Basel II, vis-à-vis the banking book exposure. Where such third party protection is purchased and is recognized as a hedge of a banking book exposure for regulatory capital purposes, neither the internal nor external credit derivative hedge would be included in the trading book for regulatory capital purposes.

(Basel II paragraph 689 (ii))

11. Positions in the reporting institution's own eligible regulatory capital instruments are deducted from capital. Position in other institutions', securities firms', and other financial entities' eligible regulatory capital instruments, as well as intangible assets, will receive the same treatment as that set down by the national supervisor for such assets held in the banking book, which in many cases is deduction from capital.

(Basel II paragraph 689 (iii))

12. Term trading-related repo-style transactions that a reporting institution accounts for in its banking book may be included in the reporting institution's trading book for regulatory capital purposes so long as all such repo-style transactions are included. For this purpose, trading-related repo-style transactions are defined as only those that meet the requirements prescribed in paragraphs 687 and 688, and both legs are in the form of either cash or securities includable in the trading book. Regardless of where they are booked, all repo-style transactions are subject to a banking book counterparty credit risk charge.

III. Prudent valuation guidance

(Basel II paragraphs 690, 691)

1. The following guidance on prudent valuation for positions in the trading book is especially important for less liquid positions which, although they will not be excluded from the trading book solely on grounds of lesser liquidity, raise the CBA's concerns about prudent valuation.

A framework for prudent valuation practices should at a minimum include the following:

Systems and controls

(Basel II paragraph 692)

3. Reporting institutions must establish and maintain adequate systems and controls sufficient to give management and supervisors the confidence that their valuation estimates are prudent and reliable. These systems must be integrated with other risk management systems within the organization (such as credit analysis).

Such systems must include:

a) Documented policies and procedures for the process of valuation. This includes clearly defined responsibilities of the various areas involved in the determination of the valuation, sources of market information and review of their appropriateness, frequency of independent valuation, timing of closing prices, procedures for adjusting valuations, end of the month and ad-hoc verification procedures; and
b) Clear and independent (i.e. independent form front office) reporting lines for the department accountable for the valuation process. The reporting line must be independent of front office and ultimately be to at least two members of the Board of Managing Directors.

Valuation methodologies

Marking to market

(Basel II paragraph 693)

3. Mark-to-market is at least the daily valuation a reporting institution should conduct of all positions at readily available 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.

(Basel II paragraph 694)

4. Reporting institutions must mark-to-market as much as possible. The more prudent side of bid/offer must be used unless the institution is a significant market maker in a particular position type and it can close out at mid-market.

Independent price verification

(Basel II paragraph 696)

5. Independent price verification is the process by which market prices are regularly verified for accuracy. While daily performing the mark-to-market exercise by dealers, verification of market prices 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 does not need to be performed as frequently as daily mark-to-market, since the objective, i.e. independent, marking of positions, should reveal any error or bias in pricing, which should result in the elimination of inaccurate daily marks.

(Basel II paragraph 697)

6. Independent price verification entails a higher standard of accuracy in that the market prices inputs are used to determine profit and loss figures, whereas daily marks are used primarily for management reporting in between reporting dates. For independent price verification, where pricing sources are more subjective, prudent measures such as valuation adjustments may be appropriate.

Valuation adjustments or reserves

(Basel II paragraph 698)

7. Reporting institutions must establish and maintain procedures for considering valuation adjustments/reserves. Reporting institutions using third-party valuations must consider whether valuation adjustments are necessary.

(Basel II paragraph 699)

8. A reporting institution should formally consider the following valuation adjustments/reserves at a minimum:

a) unearned credit spreads;
b) close-out costs;
c) operational risks;
d) early termination;
e) investing and funding costs; and
f) future administrative costs.

(Basel II paragraph 700)

9. A reporting institution must consider the need to set up valuation adjustments/reserves for less liquid positions, and to review their continued appropriateness on a regular (at least monthly) basis. Reduced liquidity could arise from market events. Additionally, close-out prices for concentrated positions and/or stale positions should be considered in establishing those valuation adjustments/reserves. A reporting institution must consider all relevant factors when determining the appropriateness of valuation adjustments/reserves for less liquid positions. These factors include, but are not limited to:

a) the amount of time it would take to hedge out the position/risks within the position;
b) the average volatility of bid/offer spreads;
c) the availability of independent market quotes (number and identity of market makers);

d) the average and volatility of trading volumes;

e) market concentrations; and

f) the ageing of positions.

(Basel II paragraph 701)

10. The valuation adjustments and reserves described above in paragraph 700, must impact Tier 1 regulatory capital and may exceed those made under financial accounting standards. An increase in valuation and reserves will result in a reduction in Tier 1 capital.

IV. The Standardized measurement method

1. This section contains information on the way in which reporting institutions should measure and report their market risk, and calculate and report their capital requirements for such risk in a standardized method ("Standard method").

A. Interest Rate Risk

(Basel II paragraph 709 (i))

1. This section describes the standard framework for measuring the risk of holding or taking positions in debt securities and other interest rate related instruments in the trading book. It covers the following instruments:

a) all fixed-rate and floating-rate debt securities; and

b) instruments that behave like them, including non-convertible preference shares[19].

2. Convertible bonds, i.e. debt issues or preference shares that are convertible, at a stated price into common shares of the issuer, should be treated as debt securities if they trade like debt securities and as equities if they trade like equities.

A.1 Specific and general market risk

(Basel II paragraph 709 (ii))

3. Total minimum capital requirement for interest rate risk is expressed in terms of two separately calculated charges, being:

[19] 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, i.e. it will be treated in the same manner as other securities positions.

a) a capital charge applying to the "*specific risk*" of each security, whether it is a short or a long position; and
b) a capital charge applying to the interest rate risk in the portfolio (termed "*general market risk*") where long and short positions in different securities or instruments can be offset.

A reporting institution's capital requirement for interest rate position risk is the sum of the capital required for "*specific risk*" and "*general market risk*" for each currency in which the reporting institution maintains a trading book.

4. The capital requirement calculated in this section should be reported and added to the capital requirements for equities, foreign exchange, commodities and options risk in SS 1G.

(Basel II paragraph 709 (iii))

A.1.1 Specific risk

5. 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.
In measuring its risk, a reporting institution may only offset matched long and short positions in the identical issue (including positions in derivatives). Even if the issuer is the same no offsetting is permitted between different issues since differences in coupon rates, liquidity, call features etc. mean that prices may diverge in the short run.
The specific risk capital charges for issuer risk are outlined in table 2.12.I and the subsequent paragraphs.

A.1.1.1 Specific risk capital charges for issuer risk

(Basel II paragraph 710)

6. The specific risk capital charges for the "government", "qualifying" and "other" categories are as follows.

<u>Table 2.12.I</u>

<u>Specific Risk Categories and Weights</u>

Categories	**External credit assessment**	**Specific risk capital charge**
Government	AAA to AA- A+ to BBB- BB+ to B- or Unrated Below B-	0% 0.25% (residual term to final maturity 6 month or less) 1.00% (residual term to final maturity greater than 6 and up to and including 24 months 1.60% (residual term to final maturity exceeding 24 months) 8.00% 12.00%
Qualifying		0.25% (residual term to final maturity 6 months or less) 1.00% (residual term to final maturity greater than 6 and up to and including 24 months) 1.60% (residual term to final maturity exceeding 24 months)
Other	Similar to credit risk charges under the standardized approach of this Framework, e.g.: BB+ to BB- or Unrated 8.00% Below BB- 12.00%	

<u>(Basel II paragraph 710 (i))</u>

Government

7. The "government" category includes all forms of government paper including bonds, treasury bills and other short term instruments. These debt instruments may be given a zero specific risk charge if:

a) they are issued, fully guaranteed or fully collateralized by securities issued by the Aruba, Curaçao, Sint Maarten, or the BES islands governments and their central banks; or

b) they are issued, fully guaranteed or fully collateralized by securities issued by central governments or central banks within the Organization for Economic Co-operation and Development (OECD); or

c) they are issued or fully guaranteed by rated non-OECD country central governments and central banks and have a residual maturity of one year or less and are denominated in local currency and the reporting institution holding such instrument is funded by liabilities in the same currency; or

d) they are issued by, fully guaranteed by, or fully collateralized by securities issued and are denominated in the local currency of the issuing government, and funded by liabilities booked in that currency.

(Basel II paragraph 711 (i), 711 (ii))

Qualifying

8. The "qualifying" category includes securities issued by public sector entities and multilateral development institutions, plus other securities that are:

a) rated investment-grade [20] by at least two external credit assessment institutions (ECAIs) specified in attachment B; or

b) rated investment-grade by one ECAI and not less than investment-grade by any other ECAI specified in attachment B (subject to the CBA's oversight): or

c) subject to the CBA's written approval, unrated, but deemed to be of comparable investment quality by the reporting institution, and the issuer has securities listed on a stock exchange recognized by the Government of Aruba as specified in its respective legislation.

9. In addition, the CBA considers the following debt securities as qualifying:

a) issued or fully guaranteed by the Aruba, Curaçao, Sint Maarten, or the BES islands governments or their public sector entities (except those that have corporate status and operate on a commercial basis;

b) issued or fully guaranteed by an entity that is subject to an equivalent capital adequacy regime (covering both credit and market risk), as determined by the CBA; or

c) issued by institutions that subject to prior approval by the CBA to be equivalent to investment grade quality and subject to supervisory and regulatory arrangements comparable to Basel II;

d) issued by institutions that are deemed subject to prior approval by the CBA to be equivalent to

[20] E.g. rated Baa or higher by Moody's and BBB or higher by Standard and Poor's.

investment grade quality and subject to supervisory and regulatory arrangements comparable to Basel II.

A.1.1.2 Specific risk rules for unrated debt securities

(Basel II paragraph 712)

10. Unrated debt securities may be included in the "qualifying" category when they are subject to the CBA's written approval, unrated, but deemed to be of comparable investment quality by the reporting institution, and the issuer has securities listed on a recognized stock exchange. This will remain unchanged for reporting institutions using the standardized approach.

A.1.1.3 Specific risk for non-qualifying issuers

(Basel paragraph 712 (i))

Other

11. The "other" category includes securities that neither qualify as government nor as qualifying securities. The instruments issued by such non-qualifying issuer will receive the same specific risk charge as a non-investment grade corporate borrower under the standardized approach for credit risk in SS 1C *"Risk weighted assets standardized credit risk"*.

A.1.1.4 Specific risk capital charges for positions hedged by credit derivatives

(Basel II paragraph 713)

12. A reporting institution may recognize full allowance for offsetting when the values of two legs (i.e. long and short) always move in the opposite direction and broadly to the same extent. This would be the case where:

a) the two legs consist of completely identical instruments, or
b) 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 (i.e. the cash position).[21]

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

(Basel II paragraph 714)

13. A reporting institution may recognize an 80% offset when the value of two legs (i.e. 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

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

reference obligation and the credit derivative, and the currency of the underlying exposure. In addition, key features of the credit derivative contract (e.g. credit event definitions, settlement mechanisms) should not cause the price movement of the credit derivative to materially deviate from the price movements of the cash position. To the extent that the transaction transfers risk (i.e. 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.

(Basel II paragraph 715)

14. A reporting institution may recognize a partial allowance when the value of the two legs (i.e. long and short) usually moves in the opposite direction. This would be the case in the following situations:

a) the position is captured in the abovementioned paragraph 713 under (b), but there is an asset mismatch between the reference obligation and the underlying exposure. Nonetheless, the position meets the requirements to allow an asset mismatch for credit risk mitigation purposes as set out in Basel II paragraph 191 (g); or
b) the position is captured in the abovementioned paragraph 713 under (a) or 714 but there is a currency or maturity mismatch[22] between the credit protection and the underlying asset; or
c) the position is captured in the abovementioned paragraph 714 but there is an asset mismatch between cash position and the credit derivative. However, the underlying asset is included in the (deliverable) obligations in the credit derivative documentation.

(Basel paragraph 716)

15. In each of these cases in paragraphs 713 to 715, the following rule applies. Rather than adding the specific risk capital requirements for each side of the transaction (i.e. the credit protection and the underlying asset) the reporting institution may apply only the higher of the two capital requirements.

(Basel II paragraph 717)

16. In cases not captured in paragraphs 713 to 715, the reporting institution must assess a specific risk capital charge against both sides of the position.

(Basel II paragraph 718)

17. With regard to reporting institutions' first-to-default and second-to-default products in the

[22] Currency mismatches should feed into the normal reporting of foreign exchange risk.

trading book, the basic concepts developed for the banking book will also apply. Reporting institutions holding long positions in these products (e.g. buyers of basket credit linked notes) would be treated as if they were protection sellers and must add the specific risk charges or use the external rating if available. Issuers of these notes would be treated as if they were protection buyers and are therefore allowed to offset specific risk for one of the underlying, i.e. the asset with the lowest specific risk charge.

A.1.2 General market risk

(Basel II paragraph 718 (i))

18. The capital requirements for general market risk are designed to capture the risk of loss arising from changes in market interest rates. According to Basel II, there are two main methods for calculating general market risk, a "**maturity**" method and a "**duration**" method.

19. Reporting institutions should use the maturity method for CoA reporting purposes.
In this method positions are allocated (slotted) into and/across a maturity ladder, and the capital charge is calculated as the sum of the following four components:

a) a small proportion of the matched weighted positions in each time-band (the "vertical disallowance");
b) a larger proportion of the matched weighted positions across different time-bands (the "horizontal disallowance");
c) the net short or long position (residual unmatched weighted positions) in the whole trading book; and
d) a net charge for positions in options, where appropriate.

(Basel II paragraph 718 (ii))

20. A reporting institution should use separate maturity ladders for each currency, calculate the capital requirement for each currency separately and then sum these with no offsetting between positions of opposite sign (long vs. short).

21. In the case of those currencies in which business is insignificant, separate maturity ladders for each currency are not required. Rather, the reporting institution may construct a single maturity ladder and slot, within each appropriate time-band, the net long or short position for each currency.
However, the reporting institution should sum these individual net positions within each time-band,

irrespective of whether they are long or short positions, to produce a gross position figure.

A.1.2.1 The Maturity method

22. To calculate the capital requirement for general market risk, a reporting institution should undertake the following steps.

(Basel II paragraph 718 (iii), 718 (iv))

Allocate

23. Long and or short positions (at current market value) in debt securities and other sources of interest rate exposures including derivative instruments are slotted into a maturity ladder comprising thirteen time-bands for securities with coupons of 3% or greater (or fifteen time-bands in case of low coupon instruments with coupons less than 3%) (Reference is made to table 2.12.II).

24. 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. Zero-coupon bonds and deep-discount bonds (defined as bonds with a coupon of less than 3%) should be slotted according to the time-bands set out in the third column of table 2.12.II.

25. A reporting institution may omit from the interest rate maturity framework if any:

a) opposite positions (long/ short) of the same amount in the same issues (but not different issues by the same issuer), whether actual or notional; and
b) closely matched swaps, forwards, futures and FRAs which meet the conditions set out in paragraphs 718(xiii) and 718(xiv).

26. After slotting all positions into the appropriate time-band, the long positions in each time-band are summed and reported as "Total Long Positions", and the short positions in each time-band are summed and reported as "Total Short Positions".

Weight

27. The next step in the calculation is to weight the summed positions in each time-band by a risk weight factor designed to reflect the price sensitivity of these positions to assumed changes in interest rates. This derives the risk-weighted long and or short market risk positions for each time-band. The weights for each time-band are set out in the table below.

Table 2.12.II

Maturity Method: Zones, Time-bands and Risk weights

Time Zone	Time-bands For Coupon 3% or more	Time-bands For Coupon less than 3%	Risk Weights [%]
1	up to 1 month	up to 1 month	0.00
	1 up to 3 months	1 up to 3 months	0.20
	3 up to 6 months	3 up to 6 months	0.40
	6 up to 12 months	6 up to 12 months	0.70
2	1 up to 2 years	1 up to 1.9 years	1.25
	2 up to 3 years	1.9 up to 2.8 years	1.75
	3 up to 4 years	2.8 up to 3.6 years	2.25
3	4 up to 5 years	3.6 up to 4.3 years	2.75
	5 up to 7 years	4.3 up to 5.7 year	3.25
	7 up to 10 years	5.7 up to 7.3 years	3.75
	10 up to 15 years	7.3 up to 9.3 years	4.50
	15 up to 20 years	9.3 up to 10.6 years	5.25
	over 20 years	10.6 up to 12 years	6.00
		12 up to 20 years	8.00
		over 20 years	12.50

(Basel II paragraph 718(v))

Offset

28. The following step in the calculation is to offset the risk weighted longs and shorts in each time-band. This will result, if any, in one or both of the following two sets of weighted positions for each time-band:

a) a matched weighted position (being the smaller absolute value of the offset risk weighted long or short position). In case of only a weighted long or weighted short position in the time-band, a zero position should be reported; and

b) an unmatched weighted position, being the difference between the risk weighted long positions and the risk weighted short positions (sign/direction of the position should be indicated).

Examples of matched and unmatched weighted positions.

Example	Sum weighted positions:		Matched position (absolute)	Unmatched position (with sign)
	Long	Short		
1	100	90	90	+10
2	75	100	75	-25
3	80	80	80	0
4	110	0	0	+110
5	0	60	0	-60

Capital charge I: Vertical disallowance

29. Since each time-band would include different instruments and different maturities, a 10% capital charge, the so-called "vertical disallowance", to reflect basis risk and gap risk will be levied on the matched weighted positions, be it long or short, in the time band. In case the weighted long and weighted short position are equal, the absolute offset amount of either the long or short position should be reported, on which the capital charge (the 10%) will be levied. In case of only a gross long- or gross short position in the time-band, a basis risk charge cannot be calculated.

Examples: the capital charge "vertical disallowances" in the above examples are as follows.

Example	Sum weighted positions:		Matched Position (absolute)	Unmatched position (with sign)	Capital charge
	Long	Short			
1	100	90	90	+10	9
2	75	100	75	-25	7.5
3	80	80	80	0	8
4	110	0	0	+110	0
5	0	60	0	-60	0

(Basel II paragraph 718 (vi))

Horizontal offsetting

30. In addition to the vertical disallowance, the reporting institution should conduct two rounds of "horizontal offsetting":

a) first between the weighted net positions (being the unmatched weighted positions) in each of the three zones (zero to one year, one year to four years and four years and over)[23]; and
b) subsequently between the weighted net positions (being between the unmatched weighted positions) in the three different zones.

The matched weighted positions that result from the offsetting will be subject to horizontal disallowances within and between the zones (the disallowances are expressed as a fraction of the matched positions, as provided in table 2.12.III).

Capital charge II-IV: Horizontal disallowances

Horizontal disallowances within the zones

31. The residual matched position in each zone is multiplied by the percentage risk factor, being 40%, 30% and 30% that correspond to zones 1, 2 and 3 respectively. The residual matched position for each zone is calculated as follows. Where a zone has both unmatched weighted long and short positions for various time bands, the lower of the aggregate of all long positions vs. the aggregate of all short positions or "zero" if both positions are either long or short positions is called the residual matched position for that zone. The offsetting position (i.e., the excess of the weighted long positions over the weighted short positions, or vice versa, within a zone) is called the residual unmatched position for that zone. (This position is used to derive the subsequent matched positions, between the zones and set out below, for calculating further capital).

[23] The zones for coupons less than 3% are 0 to 1 year, 1 to 3.6 years, and 3.6 years and over.

Table 2.12.III

Horizontal Disallowances

<table>
<tr><th rowspan="2">Zones[24]</th><th rowspan="2">Time-band</th><th colspan="3"></th></tr>
<tr><th>within the zone</th><th>between adjacent zones</th><th>between zones 1 and 3</th></tr>
<tr><td>1</td><td>0-1 month
1-3 months
3-6 months
6-12 months</td><td>40%</td><td rowspan="3">40%

40%</td><td rowspan="3">100%</td></tr>
<tr><td>2</td><td>1-2 years
2-3 years
3-4 years</td><td>30%</td></tr>
<tr><td>3</td><td>4-5 years
5-7 years
7-10 years
10-15 years
15-20 years
over 20 years</td><td>30%</td></tr>
</table>

Horizontal disallowances between the zones

32. The residual matched positions between the zones are multiplied by the risk factor, being 40%, 40% and 100%, that correspond to the zones 1-2, 2-3 and 1-3 respectively. To obtain the residual matched positions between zones, the residual unmatched positions of a zone may be offset against positions in other zones as follows:

a) The unmatched long (short) position in zone 1 may be offset against the unmatched short (long) position in zone 2. The extent to which unmatched positions in zones 1 and 2 are offset is considered the residual unmatched position between zones 1 and 2. (It is zero if both positions are in the same direction);

[24] The zones for coupons less than 3% are 0 to 1 year, 1 to 3.6 years, and 3.6 years and over.

b) Then, any residual unmatched long (short) positions in zone 2 may be matched by offsetting unmatched short (long) positions between zone 2 and zone 3. The extent to which the unmatched positions in zones 2 and 3 are offsetting is described as the residual unmatched positions between zones 2 and 3;

c) Then, any residual unmatched long (short) positions in zone 1 may be matched by offsetting unmatched long (short) positions in zone 3. The extent to which the unmatched positions in zones 1 and 3 are offsetting is described as the residual unmatched positions between zones 1 and 3.

Horizontal capital charges within and between the zones

33. Equal to the basis risk charges, the horizontal capital charges are absolute values that are summed and included as an element of the general market risk capital charges.

Capital charge V: remaining unmatched positions

34. The capital charge V is the absolute value of the sum of the unmatched positions.

1.3 Interest rate derivatives

(Basel II paragraph 718 (ix))

35. The standardized measurement method should include all interest rate derivatives and off-balance sheet instruments in the trading book which react to changes in interest rates. E.g.:

a) forward rate agreements (FRAs);
b) other forward contracts;
c) bond futures;
d) interest rate and cross-currency swaps; and
e) forward foreign exchange positions.

Options should be treated as described in section E (page 85 of this document).

1.3.1. Calculation of positions

(Basel II paragraph 718 (x))

36. The derivatives should be converted into positions in the relevant underlying and become subject to specific and general market risk charges as described above in paragraphs 709 (iii) through 718 (vi) . The amounts reported should be the market value of the principal amount of the underlying or of the notional underlying.

1.3.2. Futures and forward contracts, including forward rate agreements

(Basel II paragraph 718 (xi))

37. These instruments are treated as a combination of a long and a short position in a notional government security. 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. Where a range of deliverable instruments may be delivered to fulfill the contract, the reporting institution has flexibility to elect which deliverable security goes into the maturity ladder but should take account of any conversion factor defined by the exchange. In the case of a future on a corporate bond index, positions will be included at the market value of the notional underlying portfolio of securities.

1.3.3. Swaps

(Basel II paragraph 718 (xii))

38. Swaps must be treated as two notional positions in government securities with relevant maturities. For example, an interest rate swap under which a reporting institution is receiving floating rate interest and paying fixed 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. 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 slotted 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.

1.3.4. Calculation of capital charges for derivatives under the standardized methodology

(Basel II paragraph 718 (xiii))

39. Reporting institutions 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[25], and thus excluded from the calculation. When the future or forward comprises a range of deliverable instruments offsetting

[25] The leg representing the time to expiry of the future should, however, be reported.

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 trader 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.

40. No offsetting is 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.

(Basel II paragraph 718 (xiv))
41. In addition, opposite positions in the same category of instruments can in certain circumstances be regarded by the reporting institution 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[26]. 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 and FRAs: the reference rate (for floating rate positions) must be identical and the coupon closely matched (i.e. within 15 basis points); and
c) For swaps, FRAs, and forwards: the next interest fixing date or, for fixed coupon positions or forwards, the residual maturity must correspond within the following limits:
    i. Less than one month hence: same day;
    ii. Between one month and one year hence: within seven days;
    iii. Over one year hence: within thirty days.

1.3.5. Specific risk and general market risk for derivatives
(Basel II paragraph 718 (xvi))
Specific risk
42. Interest rate and currency swaps, FRAs, forward foreign exchange contracts and interest rate futures **will not** be subject to a specific risk charge. This exemption also applies to futures on an interest rate index (e.g. LIBOR). However, in the case of futures contracts where the underlying is a debt security, or an index representing a basket of debt securities, a specific risk charge will apply

[26] The separate legs of different swaps may also be "matched" subject to the same conditions.

according to the credit risk of the issuer as set out in the abovementioned paragraphs on interest rate risk.

(Basel II paragraph 718 (xvii))

General market risk

43. 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 in paragraphs 718 (xiii) and 718 (xiv).

(Basel II paragraph 718 (xviii))

44. Table 2.12.IV presents a summary of the regulatory treatment for interest rate derivatives, for market risk purposes.

Table 2.12.IV

Summary of treatment of interest rate derivatives

Instrument	**Specific risk charge**[27]	**General market risk charge**
Exchange- trades future:		
- Government debt security	Yes[28]	Yes, as two positions
- Corporate debt security	Yes	Yes, as two positions
OTC forward:		
- Government debt security	Yes[13]	Yes, as two positions
- Corporate debt security	Yes	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	Yes[13]	a) Carve out together with the associated hedging positions

[27] This is the specific risk charge relating to the issuer of the instrument. Under the existing credit risk rules, there remains a separate capital charge for the counterparty risk.

[28] The specific risk capital charge only applies to government debt securities that are rated below AA- (see Basel II paragraphs 710 and 170 (i).

		- simplified approach - scenario analysis - internal models
- Corporate debt security	Yes	b) General market risk charge according to the delta-plus method (gamma and vega should receive separate capital charges)
- FRAs, Swaps	No	

B. Equity Position Risk

(Basel II paragraph 718(xix))

1. This section sets out a minimum capital standard to cover the risk of holding or taking positions in equities in the trading book. It applies to long and short positions in all instruments that exhibit market behavior similar to equities but not to non-convertible preference shares, which are covered by the interest rate risk requirements described in paragraphs 709 (i) to 718 (xviii).

2. The instruments covered include:

  a) common shares, whether voting or non-voting;
  b) convertible preference shares or securities that behave like equities;
  c) commitments to buy or sell equity securities; and
  d) equity derivatives and positions affected by changes in equity prices.

B.1. Specific and general market risk

(Basel II paragraph 718 (xx))

3. The total minimum capital requirement for equities is expressed in terms of two separately calculated charges, being for the "specific risk" and for the "general risk".

4. Specific risk is defined as the reporting institution's gross equity positions (i.e. the sum of the absolute value of all long equity positions and of all short equity positions including positions arising from derivatives). The long and short positions in identical equity issues (matched positions) should be reported on a net basis.

5. General market risk is defined as the difference between the sum of all the longs and the sum of all the shorts (i.e. the overall net position in an equity market).

6. The reporting institution must calculate the long and short position in the market on a market-by-market basis, i.e. a separate report form must be completed and calculation carried out for each national market in which the institution holds equities.

7. 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.

(Basel II paragraph 718 (xxi))

8. The capital charge for specific risk is 16% of the reporting institution's gross equity positions, calculated at current market value and the capital charge for general market risk is 16% of the reporting institution's net position.

B.2 Equity derivatives

(Basel II paragraph 718 (xxii))

9. Except for equity options (reference is made to section E of this document), a reporting institution should include equity derivatives and off-balance sheet positions that are affected by changes in equity prices in its risk measurement system[29]. This includes futures and swaps on individual equities excluding stock indices. The derivatives are to be converted into positions in the relevant underlying.

B.2.1. Calculation of positions

(Basel II paragraph 718 (xxiii))

10. In order to calculate the relevant capital charge for specific and general market risk for other equity derivatives and other off-balance positions that are affected by changes in equity prices, the reporting institution should convert positions in derivatives into notional equity positions, where:

a) futures and forward contracts relating to individual equities should in principle be reported at

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[29] 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 rate or foreign currency exposure from the other leg of the contract should be reported as set out in Basel II paragraphs 709 to 718(xviii) and 718(xxx) to 718(xLii).

current market prices; and

b) futures relating to stock indices should be reported as the marked-to-market value of the notional underlying equity portfolio.

B.2.2 Calculation of capital charges

Measurement of specific and general market risk

(Basel II paragraph 718 (xxiv))

11. A reporting institution may fully offset matched positions in each identical equity, resulting in a single net short or long position, to which the specific and general market risk charges set out under the above paragraph B.1 will apply. For example, a future in a given equity may be offset against an opposite cash position in the same equity.[30]

C. Foreign Exchange Risk

(Basel II paragraph 718 (xxx))

1. This section sets out a minimum capital standard to cover the risk of holding or taking positions in foreign currencies, including gold[31].

2. The capital requirement for foreign exchange risk is applied to the reporting institutions entire business (both trading and non-trading books).

(Basel II paragraph 718 (xxxi))

3. To calculate the capital requirement two steps are required, namely:

a) measuring of the exposure in a single currency position; and

b) measuring of foreign exchange risks inherent to a reporting institution's mix of long and short positions in different currencies.

4. The capital requirement calculated in this section should be reported and added to the capital requirements for interest rate, equities, commodities and options risks in SS 1G.

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[30] The interest rate risk arising out of the future, however, should be reported as set out in Basel II paragraphs 709 to 718(xviii).

[31] Gold is to be dealt with as a foreign exchange position rather than a commodity because its volatility is more in line with foreign currencies and reporting institutions manage it in a similar manner to foreign currencies.

C.1. Measuring the exposure in a single currency:

(Basel II paragraphs 718 (xxxii) and 718 (xxxv))

5. The reporting institution should calculate its net open position in each currency by summing:

a) The net spot position (i.e. all asset items less all liability items, including accrued interest and accrued expenses 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 and the principal on currency swaps not included in the spot position);

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 institution); and

e) Any other item representing a profit or loss in foreign currencies.

(Basel II paragraph 718(xxxiii))

6. Positions in composite currencies need to be separately reported by the reporting institution but, for measuring the reporting institutions open positions, may be either treated as a currency in their own right or split into their component parts on a consistent basis. In accordance with paragraph 718(xlix)[32] positions in gold should be measured by first expressing each position in gold (spot plus forward) in terms of the standard unit of measurement for gold. The net position in gold will then be converted at current spot rates into the local currency.

The treatment of interest, other income and expenses

(Basel II paragraph 718(xxxv))

7. For the treatment of interest, other income and expenses, the following should be considered. Interest accrued (i.e. earned but not yet received) should be included as a position. Accrued expenses should also be included. The reporting institution may include unearned but expected future interest, other income and anticipated expenses if the amounts are certain and the reporting institution has

[32] Where gold is part of a forward contract (quantity of gold to be received or to be delivered), any interest rate or foreign currency exposure from the other leg of the contract should be reported as set out in Basel II paragraphs 709 to 718(xviii) and 718(xxxii).

taken the opportunity to hedge them. If a reporting institution includes unearned future income/expenses it should do so on a consistent basis, and not be permitted to select only those expected future flows which reduce its position.

The measurement of forward currency and gold positions

(Basel II paragraph 718(xxxvi))

8. For the measurement of forward currency and gold positions, the following should be considered. Forward currency and gold positions should be valued at current spot market exchange rates. Using forward exchange rates would be inappropriate since it would result in the measured positions reflecting current interest rate differentials to some extent. However, the reporting institution that bases its normal management accounting on net present values is expected to use the net present values of each position, discounted using current interest rates and valued at current spot rates, for measuring its forward currency and gold positions.

The treatment of structural positions

(Basel II paragraph 718(xxxvii))

9. The following should be considered with regard to structural positions. A matched currency position will protect a reporting institution against loss from movements in exchange rates, but will not necessarily protect its capital adequacy ratio. If a reporting institution has its capital denominated in its domestic currency 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 reporting institution can protect its capital adequacy ratio, although the position would lead to a loss if the domestic currency were to appreciate.

(Basel II Paragraph 718(xxxviii))

10. Any position which a reporting institution 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 its net open currency position if such position is of a "structural", i.e. of a non-dealing, nature.

A structural position includes:

a) any position arising from an instrument which qualifies for inclusion in the reporting institution's capital base, as defined in the instructions of SS 1A "*Capital adequacy ratio*";
b) any position entered into related to the net investment of a capital nature in a foreign operation,

the accounting consequence of which is to reduce or eliminate what would otherwise be a movement in the foreign currency translation reserve;

c) investments in foreign operations that are fully deducted from the reporting institutions capital for capital adequacy purposes as set out in SS 1A and its instructions.

The "structural" position does no more than protect the reporting institution's capital adequacy ratio. Any exclusion of the position is applied consistently, with the treatment of the hedge remaining the same for the life of the assets or other items.

C.2. Measuring the foreign exchange risk in a portfolio of foreign currency positions and gold

(Basel II Paragraph 718 (xl))

11. The reporting institution should only use the following "**shorthand**" method[33] to measure the foreign exchange risk in its foreign currency portfolio and gold.

(Basel II paragraph 718 (xli))

12. Under this method the reporting institution should convert the nominal amount (or net present value) of the net open position in each foreign currency and in gold at spot rates into the local reporting currency[34]. The overall net open position must be measured by aggregating:

a) the sum of the net short positions or the sum of the net long positions in foreign currencies (absolute value), whichever is the greater; and

b) the net position (short or long) in gold, regardless of the sign (positive or negative).

The capital charge for foreign exchange market risk is 16% of the overall net open position.

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[33] According to Basel II Framework, the second method to measure the foreign exchange risk is the use of internal models.

[34] Where the reporting institution is assessing its foreign exchange risk on a consolidated basis, it may be technically impractical in the case of some marginal operations to include the currency positions of a foreign branch or subsidiary of the reporting institution. In such cases the internal limit in each currency applied to the branch or subsidiary may be used as a proxy for the positions. Provided there is adequate ex post monitoring of actual positions against such limits, the limits should be added, without regard to sign, to the net open position in each currency.

Example of the shorthand measure of foreign exchange risk

A reporting institution has the following net open positions, for each mentioned currency and for gold, that were converted at spot rate into the local currency (+ sign signifies a long and – sign signifies a short position). The sum of the net long positions in foreign currencies is + 300, and of the net short positions is – 200, as illustrated on the third row.

YEN	EUR	GB£	CA$	US$	GOLD
+50	+100	+150	-20	-180	35
+300			-200		35

The overall net position is 335 (i.e. the higher of the net long/ short currency positions +300 plus the net position in gold +35)

The capital charge for foreign exchange market risk is 53.6 (i.e. 16% of the 335, the overall net position).

(Basel II paragraph 718(xlii))

13. A reporting institution doing negligible business in foreign currency and which does not take foreign exchange positions for its own account is exempted from capital requirements on these positions provided that:

a) Its foreign currency business, defined as the greater of the sum of its gross long positions and the sum of its gross short positions in all foreign currencies, does not exceed 100% of its capital base that was calculated for its previous reporting month in SS 1B; and

b) Its overall net open position as defined in the paragraph above does not exceed 2% of its capital base, as set out in SS 1B, and calculated for its previous reporting month.

D. Commodity Risk

(Basel II paragraph 718 (xliii))

1. This section contains the 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. 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.

2. The capital requirement calculated in this section should be reported and added to the capital requirements for interest rate, equities, foreign exchange and option risks in SS 1G.

(Basel II paragraph 718 (xlv))

3. For spot or physical trading, the directional risk arising from a change in the spot price is the most important risk. However, reporting institutions using portfolio strategies involving forward and derivatives contracts are exposed to a variety of additional risks, which may well be larger than the risk of a change in spot prices. These include:

a) Basis risk: the risk that the relationship between the prices of similar commodities alters through time;
b) Interest rate risk: the risk of a change in the cost of carry for forward positions and options; and
c) Forward gap risk: the risk that the forward price may change for reasons other than a change in interest rates.

4. If the funding of commodities positions exposes a reporting institution to interest rate or foreign exchange exposure, the institution should include the relevant positions in the measures of its interest rate and foreign exchange risk, as described in the above sections A "Interest rate Risk" and C "Foreign Exchange Risk" respectively[35].

D.1. Methods for measuring commodities position risk

(Basel II paragraph 718 (xlvi))

5. There are two[36] alternatives for measuring commodities position risk in the standardized, manner namely:

a) Simplified approach; and
b) Maturity ladder approach.

Reporting institutions should measure their commodities position risk using the simplified approach.

D.2. Simplified approach

(Basel II paragraph 718 (liv), 718(xlix))

6. In calculating the capital charge for directional risk, a reporting institution should first express each

[35] Where a commodity is part of a forward contract (quantity of commodities to be received or to be delivered), any interest rate or foreign currency exposure from the other leg of the contract should be reported as set out in section 1 Interest Rate Risk and section 3 Foreign Exchange Risk.

[36] The approaches are appropriate for reporting institutions that conduct a limited amount of commodities business. All other reporting institutions, including mayor traders, are outside the scope of the CoA and (would be expected to follow a models approach) and should inform the CBA promptly in writing for specific guidance.

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 current spot rates into the local currency. The capital charge equals 15% of the net position, long or short, in each commodity.

(Basel II paragraph 718 (xlvii))

7. 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 sub-commodities should not be offset unless the sub-categories[37] are:

a) deliverable against each other; or
b) close substitutes for each other and a minimum correlation between price movements of 0.9 can be clearly established over a minimum period of one year. A reporting institution wishing to use correlation-based offsetting must seek the CBA's written prior approval.

(Basel II paragraph 718 (lv))

8. To protect the reporting institution against basis risk, interest rate risk and forward gap risk an additional capital charge equivalent of 3% of the reporting institution's gross positions (i.e. the absolute value of all long and the absolute value of all short positions) will apply on each commodity. In valuing the gross positions in commodity derivatives for this purpose, reporting institutions should use the current spot price.

E. TREATMENT OF OPTIONS

1. 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.
2. The capital requirements calculated in this section should be reported and added to the capital requirements calculated for interest rate, debt securities, equities, foreign exchange and commodities risk in SS 1G.

(Basel II paragraph 718 (lvi))

3. Under the standardized approach two alternatives to measuring market risk for options activities are available:

[37] Commodities can be grouped into clans, families, sub-groups and individual commodities. For example, a clan might be Energy Commodities, within which Hydro-Carbons are a family with Crude Oil being a sub-group and West Texas Intermediate, Arabian Light and Brent being individual commodities.

a) reporting institutions which solely use purchased options may use the simplified method; and
b) reporting institutions which also write options must use the scenario method.

The CBA does not allow reporting institutions to write options, consequently the scenario method is not described in this CoA.

E.1. Simplified approach

(Basel II paragraph 718 (lviii))

4. Reporting institutions which handle a limited range of purchased options may use the simplified approach as set out in table 2.12.V below 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.

Table 2.12.V

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 security[38] multiplied by the sum of specific and general market risk charges[39] for the underlying less the amount the option is in the money (if any) bounded at zero[40].

[38] 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, swaptions etc.

[39] 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%.

[40] For options with a residual maturity of more than six months the strike price should be compared with the forward, not current, price. A reporting institution unable to do this must take the in the money amount to be 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. (ii) the market value of the option[41].

2.13 ATTACHMENT K - INTERNATIONAL STANDARD INDUSTRIAL CLASSIFICATION OF ALL ECONOMIC ACTIVITIES (ISIC CODE)

Additional information on the following ISIC codes can be obtained through the following link: http://unstats.un.org/unsd/cr/registry/regcst.asp?Cl=2

- A - Agriculture, hunting and forestry
  - 01 - Agriculture, hunting and related service activities
  - 02 - Forestry, logging and related service activities
- B - Fishing
  - 05 - Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing
- C - Mining and quarrying
  - 10 - Mining of coal and lignite; extraction of peat
  - 11 - Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction excluding surveying
  - 12 - Mining of uranium and thorium ores
  - 13 - Mining of metal ores
  - 14 - Other mining and quarrying
- D - Manufacturing
  - 15 - Manufacture of food products and beverages
  - 16 - Manufacture of tobacco products
  - 17 - Manufacture of textiles
  - 18 - Manufacture of wearing apparel; dressing and dyeing of fur
  - 19 - Tanning and dressing of leather; manufacture of luggage,
  - handbags, saddlery, harness and footwear
  - 20 - Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
  - 21 - Manufacture of paper and paper products
  - 22 - Publishing, printing and reproduction of recorded media
  - 23 - Manufacture of coke, refined petroleum products and nuclear fuel
  - 24 - Manufacture of chemicals and chemical products
  - 25 - Manufacture of rubber and plastics products
  - 26 - Manufacture of other non-metallic mineral products
  - 27 - Manufacture of basic metals

[41] 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.

- 28 - Manufacture of fabricated metal products, except machinery and equipment
- 29 - Manufacture of machinery and equipment n.e.c.
- 30 - Manufacture of office, accounting and computing machinery
- 31 - Manufacture of electrical machinery and apparatus n.e.c.
- 32 - Manufacture of radio, television and communication equipment and apparatus
- 33 - Manufacture of medical, precision and optical instruments, watches and clocks
- 34 - Manufacture of motor vehicles, trailers and semi-trailers
- 35 - Manufacture of other transport equipment
- 36 - Manufacture of furniture; manufacturing n.e.c.
- 37 - Recycling

- E - Electricity, gas and water supply
  - 40 - Electricity, gas, steam and hot water supply
  - 41 - Collection, purification and distribution of water
- F - Construction
  - 45 - Construction
- G - Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods
  - 50 - Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel
  - 51 - Wholesale trade and commission trade, except of motor vehicles and motorcycles
  - 52 - Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods
- H - Hotels and restaurants
  - 55 - Hotels and restaurants
- I - Transport, storage and communications
  - 60 - Land transport; transport via pipelines
  - 61 - Water transport
  - 62 - Air transport
  - 63 - Supporting and auxiliary transport activities; activities of travel agencies
  - 64 - Post and telecommunications
- J - Financial intermediation
  - 65 - Financial intermediation, except insurance and pension funding
  - 66 - Insurance and pension funding, except compulsory social security
  - 67 - Activities auxiliary to financial intermediation
- K - Real estate, renting and business activities
  - 70 - Real estate activities
  - 71 - Renting of machinery and equipment without operator and of personal and household goods
  - 72 - Computer and related activities
  - 73 - Research and development
  - 74 - Other business activities
- L - Public administration and defense; compulsory social security
  - 75 - Public administration and defense; compulsory social security
- M - Education
  - 80 - Education
- N - Health and social work

    - 85 - Health and social work
- O - Other community, social and personal service activities
    - 90 - Sewage and refuse disposal, sanitation and similar activities
    - 91 - Activities of membership organizations n.e.c.
    - 92 - Recreational, cultural and sporting activities
    - 93 - Other service activities
- P - Private households with employed persons
    - 95 - Private households with employed persons
- Q - Extra-territorial organizations and bodies
    - 99 - Extra-territorial organizations and bodies