Rules, Conditions and Guidelines on Minimum Capital Requirements (Pillar 1)

February 2010

CAYMAN ISLANDS MONETARY AUTHORITY

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LIST OF ACRONYMS

€	**Euro**
ABCP	Asset-backed commercial paper
ABS	Asset Backed Securities
ASA	Alternative Standardised Approach
BCBS	Basel Committee for Banking Supervision
BIA	Basic Indicator Approach
BIS	Bank for International Settlements
BTCL	Banks and Trusts Companies Law
CAR	Capital Adequacy Ratio
CCF	Credit conversion factor
CCR	Counterparty credit risk
CDO	Collaterised Debt Obligations
CFDs	Contracts for Differences
CIMA	Cayman Islands Monetary Authority
CMV	Current market value
CRM	Credit Risk Mitigation
DvP	Delivery - Versus - Payment
ECA	Export Credit Agencies
ECAI	External Credit Assessments Institutions
FMI	Future Margin Income
FRA	Future Rate Agreement
I/O	Interest-Only Strips
IMF	International Monetary Fund
KYD	Cayman Islands Dollar
LTV	Loan To Value
MDB	Multilateral Development Banks
NIFs	Notes Issuance Facilities
OTC	Over-the-Counter
PSE	Public Sector Entity
PvP	Payment-versus-Payment
RMBS	Residential Mortgage-Backed Securities
RUF	Revolving Underwriting Facilities
SA	Standardised Approach
SFT	Securities Financing Transaction
SPE	Special Purpose Entity
SPV	Special Purpose Vehicle
UCITS	Undertakings for Collective Investments In Transferable Securities
USD/US$	United States Dollar
YTM	Yield To Maturity

CHAPTER 1 SCOPE OF APPLICATION

INTRODUCTION

1. The following compilation of all documents represents the rules, conditions, and guidelines on the Minimum Capital Requirements (Pillar 1) relating to the International Convergence of Capital Measurement and Capital Standards (herein after referred to as the Framework or Basel II Accord) issued by the Cayman Island Monetary Authority (CIMA).

2. In order to highlight CIMA Basel II rules and conditions[1] within the compendium, the rule and conditions are written in light blue and designated with the letter **R** or **C** respectively, in the right margin**.** For example:
   Banks must maintain a total capital ratio of at least 10% and a minimum Tier 1 ratio of 6%. ***R***

   Banks must comply with the following requirements before recognising the effects of a guarantee or credit derivative. ***C***

A. SCOPE OF APPLICATION

3. The scope of application of the Framework includes, on a consolidated basis, banks incorporated in the Cayman Islands and regulated by the Authority under the Banks and Trust Companies Law (2009 Revision) (BTCL) as may be amended from time to time (herein after referred to as Bank(s)). The Framework will also include, on a fully consolidated basis, any holding company that is the parent entity within a banking group. The Framework applies to every tier within a banking group, and also on a consolidated basis to ensure that the risk of the whole banking group is fully captured.

4. A banking group, through consolidation, includes all majority-owned or controlled banking entities, and other relevant financial activities[2] (both regulated and unregulated). Therefore, the, securities entities (where subject to broadly similar regulation or where securities activities are deemed banking activities) and other financial entities[3] should be fully consolidated.

5. Any reference to Banks also includes reference to a Bank's holding company in respect of all the entities in the banking group on a consolidated basis.

6. Where Banks have investments in majority-owned or controlled financial entities that are not consolidated for capital purposes, the equity and other regulatory capital instruments in those entities attributable to the group must be deducted, and the assets and liabilities, as well as third-party capital investments in the entity must be removed from the group's balance sheet. However, the Authority will assess by other means the adequacy of capital of the entity not included in the consolidation.

[1] A condition represents the criteria that must be satisfied in order for Banks to be able to avail themselves of a benefit or a deviation from the stated requirements.
[2] Financial activities do not include insurance activities and financial entities do not include insurance entities.
[3] Examples of the types of activities that financial entities might be involved in include financial leasing, issuing credit cards, portfolio management, investment advisory, custodial and safekeeping services and other similar activities that are ancillary to the business of banking.

A.1 Treatment of Significant Minority Investments in Banking, Securities and Other Financial Entities

7. Banks should exclude from the consolidated banking group's capital by deduction of the equity and other regulatory investments, significant minority investments in banking, securities and other financial entities, where control does not exist.

8. However, Banks may apply pro rata consolidation for joint ventures that are treated as pro rata for accounting purposes. For purposes of determining significant investments, the pro-rata inclusion will be equity interest of between 20% and 50%.

A.2 Treatment of Insurance Entities

9. Banks that own an insurance subsidiary involved in carrying on insurance business in principle bear the full entrepreneurial risks of the subsidiary and should recognise on a group-wide basis the risks included in the whole group. Banks should exclude from the consolidated group's capital, any equity and other regulatory capital investments in insurance subsidiaries and significant minority investments in insurance entities. Under the deduction approach, Banks should exclude from their balance sheets relevant assets and liabilities, as well as any third party capital investments in insurance subsidiaries. Banks should apply 100% risk weighting to investments in subsidiaries involved in insurance brokerage.

10. The Authority may consider alternative approaches that would include a group-wide perspective for determining capital and avoid double counting of capital, which is to apply a risk weight of 100% to investments in insurance subsidiaries.

11. The capital invested in a majority-owned or controlled insurance entity may exceed the amount of regulatory capital required for such an entity (leaving 'surplus capital' within the insurance entity). Banks may recognise such surplus capital in calculating their capital adequacy, in limited circumstances where:
    a) the Authority is satisfied that there is no legal, regulatory or other obstacle to the prompt transfer of the surplus capital out of the insurance subsidiary as required; and
    b) such recognition would also have regard to the practical implications of a transfer e.g. in terms of exchange rate and taxation effects or the consequences for external credit assessment ratings. (**Annex 1- External Credit Assessment**).

12. Banks that are permitted to recognize surplus capital in insurance subsidiaries must publicly disclose the amount of such surplus capital recognized in its capital. Where Banks have a majority ownership interest in an insurance entity (e.g. 50% or more but less than 100%), surplus capital recognised should be proportionate to the percentage interest owned. Banks will not be permitted to recognise surplus capital in significant minority-owned insurance entities (less than 50% ownership), as it is unlikely that the Bank would be able to direct the transfer of the capital in an entity that it does not control.

13. For any non-consolidated financial subsidiaries of Banks, the Authority will ensure that majority owned or controlled insurance subsidiaries, which are not consolidated and for

which capital investments are deducted or subject to an alternative group-wide approach, are themselves adequately capitalized in order to reduce the possibility of future potential losses to the Bank. In the event of a capital shortfall emerging, the Authority will monitor any corrective action taken by the subsidiary; and where timely remediation is not possible; the shortfall will be deducted from Banks' capital.

A.3 Significant Investments in Commercial Entities

14. Banks, must deduct significant minority and majority investments in commercial entities that exceed:
    a) 15% of the Bank's capital for individual investments; and
    b) 60% of the Bank's capital for the aggregate of all investments in commercial entities.

15. Investments in significant minority and majority-owned and controlled commercial entities below the materiality levels should receive a risk weight of 100%[4].

A.4 Deduction of Investments (Pursuant To This Section)

16. Any deduction of investments that is made pursuant to the scope of application will be deducted as 50% from Tier 1 and 50% from Tier 2 capital respectively.

[4] e.g. A Bank's aggregate exposure to significant investments in commercial entities totals 70% of its capital base with one individual exposure representing 20% of its capital base. The Bank would be required to deduct 10% (70% - 60%) of the aggregate exposure from its unadjusted capital base and 5% (20% - 15%) of the individual exposure and assign a 100% risk weighting to balance of the exposure.

CHAPTER II CALCULATION OF MINIMUM CAPITAL REQUIREMENTS

INTRODUCTION

17. This section sets out the calculation of the total minimum capital requirements that Banks and holding companies of Banks must meet for exposures to credit risk, operational risk and market risk under the standardised approach of the Basel II framework.

18. Banks must maintain a total capital ratio of at least 10% and a minimum Tier 1 ratio of 6% on a solo and a consolidated basis. ***R***

19. Where the holding company incorporated in the Cayman Islands is the parent entity within a banking group, CIMA will expect that the holding company will ensure that the banking group on a consolidated basis complies with the rule in paragraph 18.

A. CALCULATION OF MINIMUM CAPITAL REQUIREMENTS

20. The capital ratio is calculated by dividing *eligible regulatory capital* by *total risk-weighted assets*.

$$\textbf{Minimum Capital Adequacy Ratio} = \frac{\text{Eligible Regulatory Capital}}{\text{Credit RWA} + \text{Market RWA} + \text{Operational RWA}}$$

A.1 Regulatory Capital

21. The framework's definition of eligible regulatory capital consists of three tiers, Tier 1, Tier 2 and Tier 3. Instruments eligible for inclusion in Tier 1 capital may be considered providing they meet the criteria in **Chapter II, Section B.1 - Tier 1.** Also, Tier 3 capital may only be used to support market risks.

A.2 Risk-Weighted Assets

22. *Total risk-weighted assets* are determined by multiplying the capital requirements for market risk and operational risk by 12.5 and adding the resulting figures to risk-weighted assets for credit risk.

B. CONSTITUENTS OF CAPITAL

B.1 Tier 1 Capital

23. Tier 1 Capital is otherwise known as the core capital and includes only permanent shareholders' equity and disclosed reserves from post tax retained earnings. This includes:
    a) Issued and fully paid ordinary shares and perpetual non-cumulative preference shares, but excluding cumulative preference shares;
    b) Disclosed reserves that were created or increased by appropriations of obtained earnings or other surplus e.g.
        i. Share premiums.
        ii. Retained profits.
        iii. Current year's profit and loss that have been verified by the external auditor.
        iv. General reserves and legal reserves.
        v. Foreign currency translation reserve.
    c) Minority Interest in the equity of subsidiaries (in the case on consolidated accounts).
    d) Qualifying Innovative Instruments (up to a maximum of 15% of Tier 1 Capital[5] , see paragraphs 32 to 35 for criteria to meet qualification).

B.2 Tier 2 Capital

24. Tier 2 Capital is considered supplementary capital and includes perpetual instruments and instruments with a maturity date.

25. Perpetual Instruments (Upper Tier 2 instruments) include:
    a) Current year's profit that have not been audited (independently verified);
    b) Unrealised gains on available for sale equity securities that can be realised at current prices (subject to a discount of 55% on the difference between the historic cost book value and market value);
    c) General provisions/general loan-loss reserves subject to the limit of 1.25% of the risk weighted assets;
    d) Hybrid (debt/equity) capital instruments contain characteristics of both debt and equity and meet the following requirements:
        i. unsecured, subordinated and fully paid-up;
        ii. not redeemable at the initiative of the holder or without the prior consent of the supervisory authority;
        iii. available to participate in losses without the Bank being obliged to cease trading (unlike conventional subordinated debt); and
        iv. although the capital instrument may carry an obligation to pay interest that cannot permanently be reduced or waived (unlike dividends on ordinary shareholders' equity), it should allow service obligations to be deferred (as with cumulative preference shares) where the profitability of the Bank would not support payment.
    e) Cumulative preference shares that meet the requirements in (d) above.

[5] The Basel Committee issued a press release in 1998 on the inclusion of certain eligible instruments in Tier 1 capital – Instruments eligible for inclusion in Tier 1 capital (October 27, 1998.)

26. Lower Tier 2 instruments (subordinated term debt) have a maturity date and are conventional unsecured subordinated debt capital instruments with a minimum original fixed term to maturity of over five years and limited life redeemable preference shares. During the last five years to maturity, a cumulative discount (or amortisation) factor of 20% per year will be applied to reflect the diminishing value of these instruments as a continuing source of strength. Unlike hybrid capital instruments, these instruments are not normally available to participate in the losses of a Bank which continues trading.

B.3 Tier 3 Capital

27. Tier 3 capital consists of the lowest tier of capital and will be considered for the sole purpose of meeting a proportion of the capital requirements for market risks. Tier 3 capital consists of short-term debt subordinated debt that is:
    a) unsecured, subordinated and fully paid up;
    b) have an original maturity of at least two years;
    c) not repayable before the agreed repayment date unless the Authority agrees; and
    d) subject to a lock-in clause which stipulates that neither interest nor principal may be paid (even at maturity) if such payment means that the Bank falls below or remains below its minimum capital requirement.

B.4 Deductions from Capital Base

28. The following items must be deducted from Tier 1 capital:
    a) Goodwill,
    b) Increases in equity capital resulting from securitization transactions (e.g., capitalized future margin income, gains on sale),
    c) Unrealised Losses on available for sale equities,
    d) Investment in own shares, and
    e) Other deductions for limited purposes (as determined by the Authority).

29. The following items must be deducted from Tier 1 and Tier 2 based on a 50% pro-rata basis:
    a) Specified off-balance Sheet Items and securities financing transactions.
    b) Unsettled non-DvP Transactions.
    c) Investments in unconsolidated banking and financial subsidiaries.
    d) Significant minority interests in other financial institutions.
    e) Investments in other banks that exceed the 20% threshold (to be calculated similarly to the example in Footnote 4 above.
    f) Reciprocal holdings of other banks' capital.
    g) Investments in commercial entities that exceed respective thresholds.
    h) All deductions relating to securitisations.
    i) Other exposures of a capital nature e.g. locked in connected counterparty loans.

B.5 Limits and Restrictions on the Use of Various Forms of Capital

30. The sum of Tier 1, Tier 2 and Tier 3 instruments will be eligible for inclusion in the calculation of regulatory capital subject to the following limits and restrictions:

Tier 1, Tier 2, & Tier 3

- Tier 1 capital must be at least 50% of the total eligible capital after all adjustments to all elements of capital, have been made. Therefore the sum of Tier 2 and Tier 3 eligible capital must not exceed Tier 1 eligible capital (net of Tier 1 deductions).
- Tier 2 elements may be substituted for Tier 3 up to the same limit of 250% in so far as the following overall limits are not breached:
  i. eligible Tier 2 capital may not exceed total Tier 1 capital, and
  ii. long-term subordinated debt may not exceed 50% of Tier 1 capital.

Tier 1

- Qualifying innovative instruments eligible for Tier 1 capital is limited to 15% of Tier 1 Capital (net of goodwill).

Tier 2

- Total Tier 2 will be limited to a maximum of 100% of Tier 1.
- Lower Tier 2 instruments (subordinated debt) will be limited to a maximum 50% of Tier 1 capital

Tier 3

- Tier 3 capital, if the circumstances demand, needs to be capable of becoming part of a Bank's permanent capital and be available to absorb losses in the event of insolvency.
- Tier 3 capital should be used solely to support market risks. This means that any capital requirement arising in respect of credit and counterparty risk in the terms of this Framework, including the credit counterparty risk in respect of Over The Counter derivative transactions (OTCs) and Securities Financing Transactions (SFTs) in both trading and banking books, should be met by Tier 1 and Tier 2 capital.
- Tier 3 capital is limited to 250% of a Bank's Tier 1 capital that is required to support market risks. This means that a minimum of about 28.5% of market risks needs to be supported by Tier 1 capital that is not required to support risks in the remainder of the book.

B.6 Criteria for Qualifying Innovative Instruments

31. 'Innovative' is defined by the Basel Committee as any 'non-common equity Tier 1 instruments with any explicit feature – other than a pure call – which might lead to the instrument being redeemed. An innovative instrument means an instrument issued by a Special Purpose Vehicle (SPV), which is a consolidated non-operating entity whose primary purpose is to raise capital.

32. Such instruments will be deemed as "qualifying innovative instruments" provided they satisfy the following requirements: **C**
    a) issued and fully paid;
    b) non-cumulative;
    c) able to absorb losses within the Bank on a going-concern basis;
    d) junior to depositors, general creditors, and subordinated debt of the Bank;
    e) permanent;

f) neither be secured nor covered by a guarantee of the issuer or related entity or other arrangement that legally or economically enhances the seniority of the claim vis-à-vis bank creditors; and
g) callable at the initiative of the issuer only after a minimum of five years with prior approval from the Authority, and under the condition that it will be replaced with capital of same or better quality unless the Authority determines that the Bank has capital that is more than adequate to its risks.

33. In addition, the following conditions have also to be fulfilled:
    a) the main features of such instruments must be easily understood and publicly disclosed;
    b) proceeds must be immediately available without limitation to the issuing bank, or if proceeds are immediately and fully available only to the issuing SPV, they must be made available to Banks (e.g. through conversion into a direct issuance of the Bank that is of higher quality or of the same quality at the same terms) at a predetermined trigger point, well before serious deterioration in the Bank's financial position;
    c) Banks must have discretion over the amount and timing of distributions, subject only to prior waiver of distributions on Banks common stock and Banks must have full access to waived payments; and
    d) distributions can only be paid out of distributable items; where distributions are pre-set they may not be reset based on the credit standing of the issuer.

34. Moderate step-ups in instruments issued through SPVs, as well as in directly issued Tier I instruments meeting the requirements set forth in paragraphs 32 and 33 above, are permitted, in conjunction with a call option, only if the moderate step-up occurs at a minimum of ten years after the issue date and if it results in an increase over the initial rate that is no greater than, at national supervisory discretion, either;
    a) 100 basis points, less the swap spread between the initial index basis and the stepped-up index basis; or
    b) 50% of the initial credit spread, less the swap spread between the initial index basis and the stepped-up index basis.

35. The terms of the instrument should provide for no more than one rate step-up over the life of the instrument. The swap spread should be fixed as of the pricing date and reflect the differential in pricing on that date between the initial reference security or rate and the stepped-up reference security or rate.

36. Banks should refer to **Annex 2 - Example of calculating limits on Tier I Innovative Instruments.**

CHAPTER III CREDIT RISK STANDARDISED APPROACH

INTRODUCTION

37. This section provides the conditions and guidance on the treatment of credit risk exposures, appropriate credit risk mitigation, and capital requirements under the Standardised Approach. Credit risk refers to the uncertainty in counterparty's ability to meet its obligations.

38. Banks must apply risk-weights to their on-balance sheet assets and off-balance sheet exposures in accordance with the risk classes set forth in this document for regulatory capital purposes. Risk-weights are based on credit rating grades that are broadly aligned with the likelihood of counterparty default. In determining the risk weights in the standardized approach, Banks may use assessments by external credit assessments institutions (ECAIs) recognised by the Authority as eligible for capital purposes in accordance with the criteria defined in **Annex 1- External Credit Assessment**. Exposures should be reported net of specific provisions.

39. The credit equivalent amount of Securities Financing Transactions ("SFTs")[6] and Over the Counter ("OTC") derivatives that expose Banks to counter party credit risk[7] is to be calculated under the conditions and guidance set forth in **Chapter III, Section A.17 - Securities Financing Transactions (SFTs), Chapter III, Section A.17 - Securities Financing Transactions (SFTs)** and **Section C Counterparty Risk Capital Requirements for Derivative Contracts** respectively.

40. The Chapter is divided as follows:
    a) Section A – Credit Risk Exposures for On-Balance Sheet, Off-Balance Sheet Exposures and Securities and Financing Transactions' (SFTs) ;
    b) Section B- Credit Risk Mitigation Techniques; and
    c) Section C – Counterparty Credit Risk Exposures for Derivative contracts

[6] SFTs are transactions such as repurchase agreements, reverse repurchase agreements, security lending and borrowing and margin lending transactions, where the value of the transactions depends on the market valuations and the transactions are often subject to margin agreements.

[7] The counterparty credit risk is defined as the risk that the counterparty to a transaction could default before the final settlement of the transaction's cash flows. An economic loss would occur if the transactions or portfolio of transactions with the counterparty has a positive economic value at the time of default. Unlike a firm's exposure to credit risk through a loan, where the exposure to credit risk is unilateral and only the lending bank faces the risk of loss, the counterparty credit risk creates a bilateral risk of loss: the market value of the transaction can be positive or negative to either counterparty to the transaction. The market value is uncertain and can vary over time with the movement of underlying market factors.

A. CREDIT RISK EXPOSURES

41. Banks must categorise an exposure into one of the following asset classes:
    a) Cash items;
    b) Central government and central bank asset class;
    c) Public Sector Entity (PSE) asset class;
    d) Multi-Lateral Development Bank (MDB) asset class;
    e) Bank asset class;
    f) Corporate asset class;
    g) Short term issue specific rated assets;
    h) Regulatory retail asset class;
    i) Residential mortgage asset class;
    j) Commercial mortgage asset class;
    k) Higher risk asset class and other exposures asset class;
    l) Past due loans.

A.1 Cash Items

42. Banks should apply a 0% risk weight to claims on notes and coins.

43. Banks may apply a 0% risk on claims on gold bullion held in its own vaults or on an allocated basis to the extent they are backed by bullion liabilities can be treated as cash.

44. Banks should apply a 20% risk weight to cash items in the process of collection.

A.2 Claims on Sovereigns

45. Banks should apply a risk weight of 0% to claims on the Cayman Islands Government.

46. Banks should apply the following risk weights to all other claims on sovereigns and central banks:

Moodys	Aaa to Aa3	A1 to A3	Baa1+ to Baa3	Ba1 + to B3	Below B3	Unrated exposures
S&P/Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	
Risk weights	0%	20%	50%	100%	150%	100%

47. Banks may apply a lower risk weight to claims on its sovereign, or central bank of incorporation that are denominated in the sovereign's domestic currency, and funded in that sovereign's domestic currency. Banks with exposures to sovereigns meeting the above criteria may use the preferential risk weight assigned to those sovereigns by their national supervisors.

A.3 Claims on Unrated Sovereigns

48. For claims on sovereigns that are unrated, Banks may use country risk scores exposures assigned by Export Credit Agencies (ECAs) as detailed below:

ECA risk scores	0-1	2	3	4 to 6	7
Risk weight	0%	20%	50%	100%	150%

49. To qualify, an ECA must publish its scores and subscribe to the OECD agreed methodology. Banks may choose to use the risk scores of ECAs that are recognised by their supervisor, or the consensus risk scores of ECAs participating in the Arrangement on Officially Supported Export Credits". The OECD agreed methodology establishes eight risk score categories associated with minimum export insurance premiums. These ECA risk scores will correspond to the risk weight categories detailed in the table above.

50. Banks should apply a 0% risk weight to claims on the Bank for International Settlements (BIS), the International Monetary Fund (IMF), the European Central Bank and the European Community.

A.4 Claims on Non-Central Government Public Sector Entities (PSEs)

51. Banks should apply a risk weight to claims on domestic PSE[8] that is one category higher than the sovereign risk weight:

Moodys	Aaa to Aa3	A1 to A3	Baa1+ to Baa3	Ba1 + to B3	Below B3	Unrated exposures
S&P/Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	
Sovereign Risk	0%	20%	50%	100%	150%	100%
PSE Risk Weight	20%	50%	100%	100%	150%	100%

52. However, if there is an explicit guarantee provided by the sovereign, a claim on a domestic PSE may carry the ratings in paragraph 46.

A.5 Claims on Multilateral Development Banks (MDBs)

53. Banks should apply the following risk weight to claims on MDBs:

Moodys	Aaa to Aa3	A1 to A3	Baa1+ to Baa3	Ba1 + to B3	Below B3	Unrated exposures
S&P/Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	
Risk Weight	20%	50%	50%	100%	150%	50%

[8] A PSE is (a) a regional government or local authority that is able to exercise one or more functions of the central government at the regional or local level; (b) an administrative body or non-commercial undertaking responsible to, or owned by, a central government, regional government or local authority, which performs regulatory or non-commercial functions. The risk weightings apply to the sovereign rating of the country and not the rating of the PSE.

54. Banks may apply a 0% risk weight to claims on highly rated MDBs provided that they fulfil the following criteria[9]:
    a) very high quality long term issuer ratings, i.e. the majority of an MDBs external assessments must be AAA;
    b) the MDBs 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 MDBs 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 MDBs 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.

A.6 Claims on Banks and Securities Firms

55. Banks should apply the following risk weights to claims on banks:

Claims (maturity greater than 3 months)

Moodys	Aaa to Aa3	A1 to A3	Baa1+ to Baa3	Ba1 + to B3	Below B3	Unrated exposures
S&P/Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	
>3 months	20%	50%	50%	100%	150%	50%

Short Term Claims (maturity of 3 months or less)

Moodys	Aaa to Aa3	A1 to A3	Baa1+ to Baa3	Ba1 + to B3	Below B3	Unrated exposures
S&P/Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to B-	Below B-	
≤ 3 months	20%	20%	20%	50%	150%	20%

[9] These criteria are established by the Basel Committee on Banking Supervision who will continue to evaluate eligibility on a case by case basis. MDBs currently eligible for a 0% risk weight are: the World Bank Group comprised of the International Bank for Reconstruction and Development (IBRD) and the International Finance Corporation (IFC), the Asian Development Bank (ADB), the African Development Bank (AfDB), the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IADB), the European Investment Bank (EIB), the European Investment Fund (EIF), the Nordic Investment Bank (NIB), the Caribbean Development Bank (CDB), the Islamic Development Bank (IDB), and the Council of Europe Development Bank (CEDB).

56. Banks may assign a 20% risk weight to short-term claims on locally incorporated banks where such claims on the banks are of an original maturity of 3 months or less denominated and funded in either KYD or USD. In addition, Banks may apply a risk weight that is one category more favourable than the standard risk weight assigned to claims on foreign banks licensed in the Cayman Islands, providing the claim has an original maturity of 3 months or less and is denominated and funded in the relevant domestic currency other than claims on banks that are rated below B-. Such preferential risk weights for short-term claims on banks licensed in other jurisdictions will be allowed only if the relevant supervisor also allows this preferential risk weighting to short-term claims on its banks.

57. Claims on banks with an original maturity under 3 months which are expected to be rolled over (i.e. where the effective maturity is longer than 3 months) will not qualify for this preferential treatment for capital adequacy purposes.

58. Banks may treat claims on securities firms as claims on banks if these firms are subject to capital requirements that are comparable to those under the Basel II framework, and are subject to consolidated regulation and supervision with respect to any downstream affiliates. If securities firms do not meet these criteria, Banks should use the same rules that apply to claims on securities firms to claims on corporates.

A.7 Claims on Corporates and Securities Firms

59. Banks should apply the following risk weight to claims on corporates (excluding venture capital and private equity investment corporations) and other securities firms (that do not satisfy the criteria in paragraph 58):

Moodys	Aaa to Aa3	A1 to A3	Baa1+ to Ba3	Below Ba3	Unrated exposures
S&P/Fitch	AAA to AA-	A+ to A-	BBB+ to BB-	Below BB-	
Standard weights	20%	50%	100%	150%	100%

60. No claim on unrated corporates or securities firms may be given a risk weight preferential to that assigned to their sovereign of incorporation.

61. Banks, with the Authority's prior written approval, may choose the option to risk weight all corporate claims at 100% without regard to external ratings. If this alternative is chosen, the Bank should apply a single consistent approach by using either the risk weights allocated to corporates wherever available or not at all.

A.8 Short Term Specific Issue Assessment

62. Banks may use short term assessment for short-term claims against banks, securities firms and corporates. The table below provides a framework for Banks' exposures to specific short-term facilities, such as a particular issuance of commercial paper:

Credit assessment	A-1/P-1[10]/F1	A-2/P-2/F2	A-3/P-3/F3	Others[11]
Risk weight	20%	50%	100%	150%

63. Where a short-term rated facility attracts a 50% risk-weight, the unrated short-term claims cannot attract a risk weight lower than 100%. Where 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, unless the Bank uses recognised credit risk mitigation techniques for such claims.

64. The treatment of short term interbank claims to banks and securities firms and the interaction with specific short-term assessments is expected to be the following:
    a) The general preferential treatment for short-term claims, as defined under paragraphs 56 and 57, applies to all claims on banks 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 favourable (i.e. lower) or identical to that 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 a bank maps into a less favourable (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 that implied by the specific short-term assessment.

A.9 Claims Included in the Regulatory Retail Portfolios

65. Banks may apply a 75% risk weight to claims that qualify under the regulatory retail portfolio. To qualify under the regulatory retail portfolio the exposure must meet the following criteria: *C*
    a) **Orientation Criterion** - The exposure is to an individual person or persons or to a small business;
    b) **Product Criterion** - The exposure takes the form of any of the following:
        i. Revolving credits and lines of credit (including credit cards and overdrafts);
        ii. Personal term loans and leases (e.g. instalment loans, auto loans and leases, student and educational loans, personal finance;) and
        iii. Small business facilities and commitments;

[10] The notations follow the methodology used by Standard & Poor's and by Moody's Investors Service. The A-1rating of Standard & Poor's includes both A-1+ and A-1-.
[11] This category includes all non-prime and B or C ratings.

c) **Granularity Criterion** - The Authority must be satisfied that the regulatory retail portfolio is sufficiently diversified to a degree that reduces the risks in the portfolio (i.e. aggregate exposure to one counterparty or a group of connected counterparties must not exceed 0.2% of the regulatory retail portfolio); and

d) **Low value of individual exposures -** The maximum aggregated exposure to one counterparty or group of connected counterparty must not exceed an absolute threshold of €1 million or its US$ equivalent converted at the appropriate spot rate.

66. If the claim does not meet the above criteria, the Bank should apply a risk weighting of 100%.

67. Listed and unlisted securities such as bonds and equities are specifically excluded from this category as they are addressed elsewhere within individual claims. Mortgage loans are also excluded as they qualify for treatment as claims secured by residential property and are addressed in paragraphs 68 to 70 below.

A.10 Claims Secured By Residential Property

68. Banks should apply a 35% risk weighting to loans secured by mortgages on residential property that is or will be occupied by the borrower or that is rented, and has a loan to value ratio (LTV)[12] of no greater than 80%.

69. Banks should apply a 75% risk weighting for the value of the loan that exceeds 80% of the LTV ratio.

70. Banks that do not hold information regarding LTVs for their individual exposures should apply a 50% risk weight to the entire portfolio of exposures.

A.11 Claims Secured By Commercial Property

71. Banks should apply a 100% risk weighting to claims secured by commercial real estate.

A.12 Higher Risk Categories

72. Banks are to apply a 150% risk weighting to claims on venture capital and private equity investments.

A.13 Other Assets

73. Banks should apply:
    a) a 0% risk weight to the following:
        i. All deductions from capital.
        ii. Unrealised gains and accrued receivables on foreign exchange and interest rate-related off-balance sheet transactions where they have been included in the off-balance sheet calculations.

[12] Banks should monitor the value of the property on a frequent basis and at a minimum of once every three years for residential real estate. When information indicating that the value of the property may have declined materially relative to general market prices, Banks must have their property valuation reviewed by an independent valuator.

b) and a 100% risk weight to the following:
   i. Tangible assets e.g. Premises and other fixed assets.
   ii. Prepayments and accrued income (where the Bank is unable to determine the counterparty).
   iii. Holdings of equity and other investments except where deducted from capital.
   iv. Investments in equity or regulatory capital instruments issued by banks or securities firms not deducted from capital.
   v. All other assets not included elsewhere.

A.14 Past Due Loans

Unsecured Portions of Past Due Loans

74. Banks should apply the following risk weighting to the unsecured portion of any loan (other than a qualifying residential mortgage loan) that is past due for more than 90 days, net of specific provisions:
    a) 150% risk weight when specific provisions are less than 20% of the outstanding loan balance;
    b) 100% risk weight when specific provisions are 20% or more of the outstanding loan balance;

75. Banks may treat non-past due loans extended to counterparties subject to a 150% risk weight in the same way as past due loans described in paragraph 74.

Secured Portions of Past Due Loans

76. Banks should apply the same risk weight on past due loans that are secured by eligible collateral as if they were not past due provided the credit risk mitigation criteria under **Section B - Credit Risk Mitigation** continues to be satisfied.

77. Past due loans fully secured by collateral not recognized under paragraphs 103 and 108 are to be risk-weighted at 100% (instead of 150%) when provisions reach 15% of the outstanding loan amount and there are strict operational criteria to ensure the quality of the collateral.

78. In the case of qualifying residential mortgages, where the past due loans are for more that 90 days, Banks should apply a 100% risk weight to the loans, net of specific provision.

A.15 Off-Balance Sheet Instruments (Excluding OTC Derivatives and SFT)

79. The categories of off-balance sheet items include guarantees, commitments, and similar contracts whose full notional principal amount may not necessarily be reflected on the balance sheet.

80. Banks should convert off-balance sheet items into credit exposures equivalents through the use of the following credit conversion factors (CCF):
    a) 0% Conversion factor

i. Commitments that are unconditionally cancellable at any time by the Bank without prior notice, or that effectively provide for automatic cancellation due to deterioration in a borrower's creditworthiness.

b) 20% Conversion factor
   i. Commitments with an original maturity up to one year.
   ii. Short-term self-liquidating trade letters of credit arising from the movement of goods (e.g. documentary credits collateralised by the underlying shipment), (a 20% CCF will be applied to both issuing and confirming banks).

c) 50% Conversion factor
   i. Commitments with an original maturity exceeding one year, including underwriting commitments and commercial credit lines.
   ii. Certain transaction-related contingent items (e.g. performance bonds, bid bonds, warranties and standby letters of credit related to particular transactions).
   iii. Note issuance facilities (NIFs) and revolving underwriting facilities (RUFs).

d) 100% Conversion factor
   i. 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).
   ii. Sale and repurchase agreements.
   iii. Asset sales with recourse where the credit risk remains with the Bank (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).
   iv. Forward asset purchases, forward forward deposits and partly-paid shares and securities[13], which represent commitments with certain drawdown.

81. Where there is an undertaking to provide a commitment on an off-balance sheet item, Banks should apply the lower of the two applicable CCFs.

A.16 OTC Derivatives

82. Over-the-counter derivative contracts (OTCs) are not exposed to credit risk for the face value of their contracts and require a separate treatment. These instruments include forwards, swaps, purchased options and other similar derivatives. The credit equivalent amounts of OTC derivatives that expose Banks to counterparty credit risk are to be calculated under the rules set forth in **Chapter III, Section C - Counterparty Risk Capital Requirements for Derivative Contracts**.

A.17 Securities Financing Transactions (SFT)

83. Collateralised transactions that take the form of SFTs (i.e. repurchase /reverse repurchase agreements are subject to special considerations. SFTs held in both the banking book and trading book are subject to counterparty credit risk. SFTs may or may not be subject to

[13] 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)

master netting agreements, and the respective treatments are set forth in paragraphs 84 through 86 below:

A.17.1 Securities Financing Transactions (SFT) Not Subject To Master Netting

84. For SFTs that are not subject to master netting agreement, Banks may use either:
    a) the simple approach or comprehensive approach to recognise collateral for banking book exposures; or
    b) the comprehensive approach to recognise collateral for trading book exposures.[14]

85. The treatment of the simple and comprehensive approach to collateral is set forth in **Chapter III, Section B.3 - Collaterised Transactions.**

A.17.2 Securities Financing Transactions (SFT) Subject To Master Netting

86. For SFTs that are subject to master netting agreement, Banks should apply the treatment set forth in **Chapter III, Section B.4.1 Treatment of SFTs covered under master netting agreements**, on a counterparty-by-counterparty basis.

A.18 Unsettled Transactions or Failed Transactions

87. Banks should closely monitor securities, commodities, and foreign exchange transactions that have failed, starting on the first day that they fail. A capital charge to failed transactions must be calculated in accordance with **Chapter III, Section D - Capital Treatment for Failed Trades and Non-DvP Transactions**.

88. With regard to unsettled securities, commodities, and foreign exchange transactions, the Authority, like the Basel Committee is of the opinion that Banks are exposed to counterparty credit risk from trade date, irrespective of the booking or the accounting of the transaction. Therefore Banks are encouraged to develop, implement and improve systems for tracking and monitoring the credit risk exposure arising from unsettled transactions as appropriate for producing management information that facilitates action on a timely basis. Furthermore, when such transactions are not processed through a delivery-versus-payment (DvP) or payment-versus-payment (DvP) mechanism, Banks must calculate a capital charge as set forth in **Chapter III, Section D - Capital Treatment for Failed Trades and Non-DvP Transactions.**

[14] The simple approach for recognising collateral will not be permitted for trading book exposures.

B. CREDIT RISK MITIGATION (CRM)

B.1 Introduction

89. Banks may use a number of techniques to mitigate the credit risks to which they are exposed. These techniques include:
    a) Collateralisation - exposures may be collateralised by first priority claims, in whole or in part with cash or securities.
    b) Use of guarantees and/or credit derivatives - a loan exposure may be guaranteed by a third party; in addition Banks may buy a credit derivative to offset various forms of credit risk.
    c) Netting - Banks may agree to net loans owed to them against deposits from the same counterparty.

90. The section sets out the treatment of credit risk mitigation techniques that are applicable to the banking book exposures under the standardised approach. The comprehensive approach for the treatment of collateral in **Chapter III, section B.3.3 - Comprehensive Approach** will also be applied to calculate the counterparty risk charges for OTC derivatives and repo-style transactions booked in the trading book.

91. No transaction in which CRM techniques are used should receive a higher capital requirement than an otherwise identical transaction where such techniques are not used.

92. The effects of CRM will not be double counted. Therefore, no additional supervisory recognition of CRM for regulatory capital purposes will be granted on claims for which an issue-specific rating is used that already reflects that CRM. Principal-only ratings will also not be allowed within the framework of CRM as both principal and interest must be reported.

93. While the use of CRM techniques reduces or transfers credit risk, it simultaneously may increase residual risks. Residual risks include legal, operational, liquidity and market risks. Therefore, it is imperative that Banks employ robust procedures and processes to control these risks, including strategy; consideration of the underlying credit; valuation; policies and procedures; systems; control of roll-off risks; and management of concentration risk arising from Banks' use of CRM techniques and their interaction with Banks' overall credit risk profile. Where these risks are not adequately controlled, the Authority may impose additional capital charges or take other supervisory actions that will be outlined in Pillar 2[15].

94. Banks may be permitted to obtain capital relief in respect of any CRM techniques whilst becoming fully compliant with the Pillar 3[15] requirements. Any Bank that is not Pillar 3 compliant by the Pillar 3 implementation date will no longer benefit from the capital relief associated with CRM techniques.

95. Where these techniques meet the requirements for legal certainty as described in **Chapter III, Section B.2 - Legal Certainty** below, the revised approach to CRM allows a wider range of credit risk mitigants to be recognised for regulatory capital purposes.

[15] Pillars 2 and 3 will be implemented at a later date.

B.2 Legal Certainty

96. In order for Banks to obtain capital relief for any use of CRM techniques, the following minimum standards for legal documentation must be met: C
    a) All documentation used in collateralised transactions and for documenting on balance-sheet netting, guarantees and credit derivatives must be binding on all parties and legally enforceable in all relevant jurisdictions; and
    b) Banks must have conducted sufficient legal review to verify this and have a well-founded legal basis to reach this conclusion, and undertake such further review as necessary to ensure continuing forcibility.

CREDIT RISK MITIGATION TECHNIQUES

B.3 Collateralised Transactions

97. A collateralised transaction is one in which:
    a) Banks have a credit exposure or potential credit exposure; and
    b) that credit exposure or potential credit exposure is hedged in whole or in part by collateral posted by a counterparty[16] or by a third party on behalf of the counterparty.

98. Where Banks take eligible financial collateral (e.g. cash or securities, more specifically defined in paragraphs 103 and 108 below), it is allowed to reduce their credit exposure to a counterparty when calculating their capital requirements to take account of the risk mitigating effect of the collateral.

B.3.1 Overall Framework and Minimum Conditions

99. Banks may opt for either the Simple Approach, which substitutes the risk weighting of the collateral for the risk weighting of the counterparty for the collateralised portion of the exposure (generally subject to a 20% floor), or for the Comprehensive Approach, which allows fuller offset of collateral against exposures, by effectively reducing the exposure amount by the value ascribed to the collateral. Banks may operate under either, but not both approaches in the banking book, and only under the comprehensive approach in the trading book. Partial collateralisation is recognised in both approaches. Mismatches in the maturity of the underlying exposure and the collateral will only be allowed under the Comprehensive Approach.

100. Prior to Banks receiving any capital relief in respect of any form of collateral, the standards set forth below must be met under the Simple or Comprehensive Approach: C
    a) The general requirements for legal certainty as set forth in **Chapter III, Section B.2 - Legal Certainty**, the legal mechanism by which collateral is pledged or transferred, confers on Banks the right to liquidate or take legal possession of the collateral, in a timely manner, in the event of the default, insolvency or bankruptcy (or one or more

[16] In this section "counterparty" is used to denote a party to whom banks has an on- or off-balance sheet credit exposure or a potential credit exposure. That exposure may, for example, take the form of a loan of cash or securities (where the counterparty would traditionally be called the borrower), of securities posted as collateral, of a commitment or of exposure under an OTC derivatives contract.

otherwise-defined credit events set forth in the transaction documentation) of the counterparty.

b) Banks must take all steps necessary to fulfil those requirements under the law applicable to their interest in the collateral for obtaining and maintaining an enforceable security interest, e.g. by registering it with a registrar, or for exercising a right to net or set off in relation to title transfer collateral.

c) The credit quality of the counterparty and the value of the collateral must not have a material positive correlation. For example, securities issued by the counterparty, or by any related group entity, would provide little protection and so would be ineligible.

d) Banks must have clear and robust procedures for the timely liquidation of collateral to ensure that any legal conditions required for declaring the default of the counterparty and liquidating the collateral are observed, and that collateral can be liquidated promptly.

e) Where a custodian holds the collateral, Banks must take reasonable steps to ensure that the custodian segregates the collateral from its own assets.

101. A capital charge will be applied to Banks on either side of the collateralized transaction: for example, both repos and reverse repos will be subject to capital requirements. Likewise, both sides of securities lending and borrowing transaction will be subject to explicit capital charges, as will the posting of securities in connection with a derivative exposure or other borrowing.

102. Where Banks, acting as an agent, arranges a repo-style transaction (i.e. repurchase/reverse repurchase and securities lending/borrowing transactions) between a customer and a third party and provides a guarantee to the customer that the third party will perform on its obligations, then the risk to banks is the same as if banks had entered into the transaction as a principal. In such circumstances, Banks will be required to calculate capital requirements as if it were itself the principal.

B.3.2 The Simple Approach

Eligible financial collateral

103. The following collateral instruments are eligible for recognition in the simple approach:

a) Cash (as well as certificates of deposit or comparable instruments issued by the lending bank) on deposit with the Bank which is incurring the counterparty exposure[17,18].

b) Gold.

c) Debt securities rated by a recognised external credit assessment institution where these are either:

   i. at least BB- when issued by sovereigns or PSEs that are treated as sovereigns by the national supervisor; or

[17] Cash funded credit linked notes issued by the bank against exposures in the banking book which fulfil the criteria for credit derivatives will be treated as cash collateralised transactions.

[18] As collateral at a third-party bank in a non-custodial arrangement, if they are openly pledged/assigned to the lending bank and if the pledge/assignment is unconditional and irrevocable, the exposure amount covered by the collateral (after any necessary haircuts for currency risk) will receive the risk weight of the third-party bank.

ii. at least BBB- when issued by other entities (including banks and securities firms); or
iii. at least A-3/P-3 for short-term debt instruments.

d) Debt securities not rated by a recognised external credit assessment institution where these are:
   i. issued by banks; and
   ii. listed on a recognised exchange[19]; and
   iii. classified as senior debt; and
   iv. all rated issues of the same seniority by the issuing bank must be rated at least BBB- or A-3/P-3 by a recognised ECAI; and
   v. the bank holding the securities as collateral has no information to suggest that the issue justifies a rating below BBB- or A-3/P-3 (as applicable); and
   vi. the Authority is sufficiently confident about the market liquidity of the security.
e) Equities (including convertible bonds) that are included in a main index.
f) Undertakings for Collective Investments in Transferable Securities (UCITS) and mutual funds where:
   i. a price for the units is publicly quoted daily; and
   ii. the UCITS/mutual fund is limited to investing in the instruments listed in this paragraph.[20]

104. In the Simple Approach the risk weighting of the collateral instrument collateralizing or partially collateralising the exposure is substituted for the risk weighting of the counterparty.

Minimum conditions

105. The collateral must be pledged for at least the life of the exposure and it must be marked to market and re-valued with a minimum frequency of six months. Those portions of claims collateralised by the market value of recognised collateral receive the risk weight applicable to the collateral instrument.

Risk Weight

106. The risk weight on the collateralised portion will be subject to a floor of 20% except under certain conditions specified below:

[19] Refer to **Regulatory Handbook Appendices** on CIMA's webpage
[20] However, the use or potential use by a UCITS/mutual fund of derivative instruments solely to hedge investments shall not prevent units in that UCITS/mutual fund from being eligible financial collateral.

Securities and Financing Transactions (SFTs)

a) Banks may apply a 0% risk weight to transactions, which fulfil the criteria outlined in paragraph 126 and are with a core market participant, as defined in 127.

b) If the counterparty to the transactions is not a core market participant, Banks may apply a risk weight of 10%.

OTC Derivative Transactions

a) Banks may apply a 0% risk weight to OTC derivative transactions that are subject to daily mark-to-market, collateralised by cash and where there is no currency mismatch.
b) Banks may apply a 10% risk weight to transactions collateralised by sovereign or PSE securities that qualify for a 0% risk weight in the Standardised Approach.
c) This preferential risk weight applied in a) and b) is permissible provided:
   i. the exposure and the collateral are denominated in the same currency, and either the collateral is cash on deposit as defined in paragraph 103(a); or
   ii. the collateral is in the form of sovereign/PSE securities eligible for a 0% risk weight, and its market value has been discounted by 20%.

107. The uncollaterised portion of the claim should be assigned to the risk weight appropriate to the counterparty. A capital requirement will be applied to Banks on either side of the collateralised transaction: for example, both repos and reverse repos will be subject to capital requirements.

B.3.3 The Comprehensive Approach

Eligible Collateral

108. The following collateral instruments are eligible for recognition in the comprehensive approach:
   a) All of the instruments in paragraph 103;
   b) Equities (including convertible bonds) which are not included in a main index but which are listed on a recognised exchange;
   c) UCITS/mutual funds which include such equities.

Using the Comprehensive Approach

109. In the Comprehensive Approach, Banks will need to calculate their adjusted exposure to a counterparty for capital adequacy purposes in order to take account of the effects of that collateral. Using haircuts, Banks are required to adjust both the amount of the exposure to the counterparty and the value of any collateral received in support of that counterparty to take account of possible future fluctuations in the value of either, occasioned by market movements. This will produce volatility adjusted amounts for both exposure and collateral. Unless either side of the transaction is cash, the volatility adjusted amount for the exposure will be higher than the exposure and for the collateral it will be lower.

110. Additionally, where the exposure and collateral are held in different currencies an additional downwards adjustment must be made to the volatility adjusted collateral amount to take account of possible future fluctuations in exchange rates.

111. Where the volatility-adjusted exposure amount is greater than the volatility-adjusted collateral amount (including any further adjustment for foreign exchange risk), Banks shall calculate their risk-weighted assets as the difference between the two multiplied by the risk weight of the counterparty. The framework for performing these calculations is set forth in paragraphs 115 to 118.

112. Banks will only be permitted to use standard supervisory haircuts, which uses the parameters set by the Framework. The size of the individual haircuts will depend on the type of instrument, type of transaction and the frequency of marking-to-market and remargining. For example, repo-style transactions subject to daily marking-to-market and to daily remargining will receive a haircut based on a 5-business day holding period and secured lending transactions with daily mark-to-market and no remargining clauses will receive a haircut based on a 20-business day holding period. These haircut numbers will be scaled up using the square root of time formula depending on the frequency of remargining or marking-to-market.

113. Banks may only use the standard supervisory haircuts in calculating the exposure amount after risk mitigation.

114. The effect of master netting agreements covering repo-style transactions can be recognised for the calculation of capital requirements subject to the conditions in paragraph 132.

Calculation of capital requirement

115. For a collateralised transaction, the exposure amount after risk mitigation is calculated as follows:

$$E^* = \max\{0, E \times (1 + H_e) - C \times (1 - H_c - H_{fx})\}$$

Where:
E* = the exposure value after risk mitigation
E = current value of the exposure
H_e = haircut appropriate to the exposure
C = the current value of the collateral received
H_c = haircut appropriate to the collateral
H_{fx} = haircut appropriate for currency mismatch between the collateral and exposure

116. The exposure amount after risk mitigation will be multiplied by the risk weight of the counterparty to obtain the risk-weighted asset amount for the collateralised transaction.

117. The treatment for transactions where there is a mismatch between the maturity of the counterparty exposure and the collateral is given in paragraphs 156 to 158.

118. Where the collateral is a basket of assets, the haircut on the basket will be

$$H = \sum_i a_i H_i$$

Where,
A_i - is the weight of the asset (as measured by units of currency) in the basket and
H_i- the haircut applicable to that asset.

Standard supervisory haircuts

119. These are the standard supervisory haircuts (assuming daily mark-to-market, daily remargining and a 10-business day holding period), expressed as percentages[21]:

Issue rating for debt securities	Residual Maturity	Sovereigns	Other issuers
AAA to AA-/A-1	<= 1 year	0.5	1
	>1 year, <=5 years	2	4
	>5 years	4	8
A+ to BBB-/ A-2/A-3/P-3 and unrated bank securities per para 145 (d)	<= 1 year	1	2
	>1 year, <=5 years	3	6
	>5 years	6	12
BB+ to BB-	All	15	
Main index equities (including convertible bonds) and gold		15	
Other equities (including convertible bonds) listed on a recognised exchange		25	
UCITS/Mutual funds		Highest haircut applicable to any security in which the fund can invest	
Cash in the same currency		0	

120. The standard supervisory haircut for currency risk where exposure and collateral are denominated in different currencies is 8% (also based on a 10-business day holding period and daily mark-to-market).

121. For transactions in which Banks lend non-eligible instruments (e.g. non-investment grade corporate debt securities), the haircut to be applied on the exposure should be the same as the one for equity traded on a recognised exchange that is not part of a main index.

Appropriate Haircuts for different holding periods and non daily mark-to-market or remargining

122. For some transactions, depending on the nature and frequency of the revaluation and remargining provisions, different holding periods are appropriate. The framework for

[21] Sovereigns include PSEs treated as sovereigns by the Authority and Multilateral Development Banks receiving a 0% risk weight. Other issues included PSEs which are not treated by the Authority as sovereigns. Cash in the same currency refers to eligible cash collateral.

collateral haircuts distinguishes between repo-style transactions (i.e. repo/reverse repos and securities lending/borrowing), "other capital-market-driven transactions" (i.e. OTC derivatives transactions and margin lending) and secured lending. In capital-market-driven transactions and repo-style transactions, the documentation contains remargining clauses; in secured lending transactions, it generally does not.

123. The minimum holding period for various products is summarised in the following table.

Transaction type	Minimum holding period	Condition
Repo-style transaction	Five business days	Daily remargining
Other capital market transactions	Ten business days	Daily remargining
Secured lending	Twenty business days	Daily revaluation

124. When the frequency of remargining or revaluation is longer than the minimum, the minimum haircut numbers will be scaled up depending on the actual number of business days between remargining or revaluation using the square root of time formula below:

$$H = H_M \sqrt{\frac{N_R + (T_M - 1)}{T_M}}$$

where:
H = haircut
H_M = haircut under the minimum holding period
T_M = minimum holding period for the type of transaction
N_R = actual number of business days between remargining for capital market transactions or revaluation for secured transactions.

125. When Banks calculate the volatility on a TN day holding period which is different from the specified minimum holding period TM, the HM will be calculated using the square root of time formula:

$$H_M = H_N \sqrt{\frac{T_M}{T_N}}$$

where:
H_M = haircut under the minimum holding period
H_N = haircut based on the holding period T_N
T_N = holding period used by the Bank for deriving H_N
T_M = minimum holding period for the type of transaction

Treatment of SFTs (Conditions for zero Haircuts)

126. For repo-style transactions, Banks may apply a haircut of zero where the following conditions are satisfied, and the counterparty is a core market participant: C
   a) both the exposure and the collateral are cash, or a sovereign security, or PSE security qualifying for a 0% risk weight in the standardised approach;[22]
   b) both the exposure and the collateral are denominated in the same currency;
   c) either the transaction is overnight or both the exposure and the collateral are marked-to-market daily and are subject to daily remargining;
   d) following a counterparty's failure to remargin, the time that is required between the last mark-to-market before the failure to remargin and the liquidation[23] of the collateral is considered to be no more than four business days;
   e) the transaction is settled across a settlement system proven for that type of transaction;
   f) the documentation covering the agreement is standard market documentation for repo-style transactions in the securities concerned;
   g) the transaction is governed by documentation specifying that if the counterparty fails to satisfy an obligation to deliver cash or securities or to deliver margin or otherwise defaults, then the transaction is immediately terminable; and
   h) upon any default event, regardless of whether the counterparty is insolvent or bankrupt, the Bank has the unfettered, legally enforceable right to immediately seize and liquidate the collateral for its benefit.

127. Core market participants include 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 standardised approach;
   d) regulated mutual funds that are subject to capital or leverage requirements;
   e) regulated pension funds; and
   f) recognised clearing organisations.

128. The Authority will permit Banks to apply the specific carve-out permissible by a foreign supervisor to repo-style transactions in securities issued by that foreign government.

[22] Claims on the Cayman Islands Government carry a 0% risk weight.
[23] This does not require the bank to always liquidate the collateral but rather to have the capability to do so within the given time frame.

Collateralised OTC derivatives transactions

129. The calculation for the counterparty credit risk charge for Collateralised OTC derivatives transactions is set forth in **Chapter III, Section C.2.2 - Collaterised OTC Transactions** under the Current Exposure Method.

B.4 Netting

130. Where Banks have legally enforceable netting arrangements for loans and deposits they may calculate capital requirements on the basis of net credit exposures subject to the following conditions: C
   a) the Bank has a well-founded legal basis for concluding that the netting or offsetting agreement is enforceable in each relevant jurisdiction regardless of whether the counterparty is insolvent or bankrupt;
   b) the Bank is able at any time to determine those assets and liabilities with the same counterparty that are subject to the netting agreement;
   c) the Bank monitors and controls its roll-off risks; and
   d) the Bank monitors and controls the relevant exposures on a net basis.

131. Banks may use the net exposure of loans and deposits as the basis for its capital adequacy calculation in accordance with the formula in paragraph 115. Assets (loans) are treated as exposure and liabilities (deposits) as collateral. The haircuts will be zero except when a currency mismatch exists. A 10-business day holding period will apply when daily mark-to market is conducted and all the requirements below are completed:
   a) recognition and calculation of the appropriate standard supervisory haircuts (paragraphs 119 and 124); and
   b) adjustment for any maturity mismatches (paragraphs 154 to 158).

B.4.1 Treatment of SFT Covered Under Master Netting Agreements

132. The effects of bilateral netting agreements covering repo-style transactions will be recognised on a counterparty-by-counterparty basis if the agreements are legally enforceable in each relevant jurisdiction upon the occurrence of an event of default and regardless of whether the counterparty is insolvent or bankrupt. In addition, netting agreements must: C
   a) provide the non-defaulting party the right to terminate and close-out in a timely manner all transactions under the agreement upon an event of default, including in the event of insolvency or bankruptcy of the counterparty;
   b) provide for the netting of gains and losses on transactions (including the value of any collateral) terminated and closed out under it so that a single net amount is owed by one party to the other;
   c) allow for the prompt liquidation or setoff of collateral upon the event of default; and
   d) together with the rights arising from the provisions required in (a) to (c) above, be legally enforceable in each relevant jurisdiction upon the occurrence of an event of default and regardless of the counterparty's insolvency or bankruptcy.

133. Netting across positions in the banking and trading book will only be recognized when the netted transactions fulfil the following conditions:
   a) all transactions are marked to market daily[24]; and
   b) the collateral instruments used in the transactions are recognised as eligible financial collateral in the banking book.

134. The calculation of the capital requirement in paragraph 115 will be adapted to recognise the adjustments for the netting agreements. The new calculation taking into account the impact of master netting agreements would be as follows:

$$E^* = \max\left\{0, \left[\sum(E) - \sum(C)\right] + \sum(Es \times Hs) + \sum(Efx \times Hfx)\right\}$$

where:

E* = the exposure value after risk mitigation
E = current value of the exposure
C = the value of the collateral received
Es = absolute value of the net position in a given security
Hs = haircut appropriate to Es
E_{fx} = absolute value of the net position in a currency different from the settlement currency
H_{fx} = haircut appropriate for currency mismatch

135. The intention here is to obtain a net exposure amount after netting of the exposures and collateral and have an add-on amount reflecting possible price changes for the securities involved in the transactions and for foreign exchange risk if any. The net long or short position of each security included in the netting agreement will be multiplied by the appropriate haircut. All other rules regarding the calculation of haircuts stated in paragraphs 115 to 128 equivalently apply for Banks using bilateral netting agreements for repo-style transactions.

136. Currently, Banks will not be permitted to use a VaR approach to reflect the price volatility of the exposure and collateral for repo-style transactions.

B.5 Guarantees and Credit Derivatives

137. A range of guarantors and protection providers are recognised. A substitution approach will be applied whereby only guarantees issued by or protection provided by entities with a lower risk weight than the counterparty will lead to reduced capital charges. This is as a result of the protected portion of the counterparty exposure being assigned the risk weight of the guarantor or protection provider, whereas the uncovered portion retains the risk weight of the underlying counterparty.

[24] The holding period for the haircuts will depend as in other repo-style transactions on the frequency of margining.

138. Where guarantees or credit derivatives are direct, explicit, irrevocable and unconditional, and the Authority is satisfied that Banks fulfil certain minimum operational conditions relating to risk management processes, Banks may be allowed to take account of such credit protection in calculating their capital requirements.

B.5.1 Operational Conditions for Both Guarantees and Credit Derivatives

139. Banks must comply with the following requirements before recognising the effects of a guarantee or credit derivative: C

a) represent a direct claim on the protection provider and must be explicitly referenced to specific exposures or a pool of exposures, so that the extent of the cover is clearly defined and incontrovertible.

b) other than in the event of non-payment by the bank of money due in respect of the guarantee if applicable, there is an irrevocable obligation on the part of the guarantor to pay out a pre-determined amount upon the occurrence of a credit event, as defined under the guarantee.

c) the guarantee does not contain any clause, the fulfilment of which is outside the direct control of the Bank, that -

   i. would allow the guarantor to unilaterally cancel the guarantee[25];
   ii. would increase the effective cost of the guarantee as a result of deteriorating credit quality of the underlying exposure;
   iii. could prevent the guarantor from being obliged to pay out in a timely manner in the event that the underlying obligor fails to make any payment due; or
   iv. could allow the maturity of the guarantee agreed ex-ante to be reduced ex-post by the guarantor;

d) the Reporting Bank is able in a timely manner to pursue the guarantor for any monies outstanding under the documentation governing the transaction on the default of, or non-payment by, the underlying obligor[26]; and

e) the guarantee covers all types of payments that the underlying obligor is expected to make under the documentation governing the transaction, except in the case of accrued interest, accrued expenses or fees outstanding, where these are deemed immaterial.

(i)Additional operational conditions for guarantees

140. In addition to the legal certainty requirements in paragraph 96 above, in order for a guarantee to be recognised, the following conditions must be satisfied: C

a) on the qualifying default/non-payment of the counterparty, the Bank may in a timely manner pursue the guarantor for any monies outstanding under the documentation governing the transaction. The guarantor may make one lump sum payment of all

[25] This does not include any guarantee with a cancellation clause where it is provided that any obligation incurred or transaction entered into prior to any cancellation, unilateral or otherwise, continues to be guaranteed by the guarantor.

[26] The guarantee payments may be in the form of the guarantor making a lump sum payment of all monies to the Reporting Bank or the guarantor assuming the future payment obligations of the counterparty covered by the guarantee, as specified in the relevant documentation governing the guarantee.

monies under such documentation to the Bank, or the guarantor may assume the future payment obligations of the counterparty covered by the guarantee. The Bank must have the right to receive any such payments from the guarantor without first having to take legal actions in order to pursue the counterparty for payment.

b) the guarantee is an explicitly documented obligation assumed by the guarantor.

c) except as noted in the following sentence, the guarantee covers all types of payments the underlying obligor is expected to make under the documentation governing the transaction, for example notional amount, margin payments etc. Where a guarantee covers payment of principal only, interests and other uncovered payments should be treated as an unsecured amount in accordance with paragraph 149.

(ii) Additional operational conditions for credit derivatives

141. In order for a credit derivative contract to be recognised, the following conditions must be satisfied:

a) the credit events specified by the contracting parties must at a minimum cover: **C**

i. failure to pay the amounts due under terms of the underlying obligation that are in effect at the time of such failure (with a grace period that is closely in line with the grace period in the underlying obligation);

ii. bankruptcy, insolvency or inability of the obligor to pay its debts, or its failure or admission in writing of its inability generally to pay its debts as they become due, and analogous events; and

iii. restructuring of the underlying obligation involving forgiveness or postponement of principal, interest or fees that results in a credit loss event (i.e. charge-off, specific provision or other similar debit to the profit and loss account). When restructuring is not specified as a credit event, refer to paragraph 142.

b) if the credit derivative covers obligations that do not include the underlying obligation, item (g) below governs whether the asset mismatch is permissible.

c) the credit derivative shall not terminate prior to expiration of any grace period required for a default on the underlying obligation to occur as a result of a failure to pay, subject to the provisions of paragraph 156.

d) credit derivatives allowing for cash settlement are recognised for capital purposes insofar as a robust valuation process is in place in order to estimate loss reliably. There must be a clearly specified period for obtaining post-credit event valuations of the underlying obligation. If the reference obligation specified in the credit derivative for purposes of cash settlement is different than the underlying obligation, item (g) below governs whether the asset mismatch is permissible.

e) if the protection purchaser's right/ability to transfer the underlying obligation to the protection provider is required for settlement, the terms of the underlying obligation must provide that any required consent to such transfer may not be unreasonably withheld.

f) the identity of the parties responsible for determining whether a credit event has occurred must be clearly defined. This determination must not be the sole responsibility of the protection seller. The protection buyer must have the right/ability to inform the protection provider of the occurrence of a credit event.

g) a mismatch between the underlying obligation and the reference obligation under the credit derivative (i.e. the obligation used for purposes of determining cash settlement value or the deliverable obligation) is permissible if (1) the reference obligation ranks pari passu with or is junior to the underlying obligation, and (2) the underlying obligation and reference obligation share the same obligor (i.e. the same legal entity) and legally enforceable cross-default or cross-acceleration clauses are in place.

h) a mismatch between the underlying obligation and the obligation used for purposes of determining whether a credit event has occurred is permissible if (1) the latter obligation ranks pari passu with or is junior to the underlying obligation, and (2) the underlying obligation and reference obligation share the same obligor (i.e. the same legal entity) and legally enforceable cross-default or cross acceleration clauses are in place.

142. Banks may recognise partial recognition of the credit derivative in instances where the restructuring of the underlying obligation is not covered by the credit derivative, but the other operational requirements in paragraph 30 are met. Partial recognition will be permitted:
   a) if the amount of the credit derivative is less than or equal to the amount of the underlying obligation, 60% of the amount of the hedge can be recognized as covered; and
   b) if the amount of the credit derivative is larger than that of the underlying obligation, then the amount of eligible hedge is capped at 60% of the amount of the underlying obligation.

143. Only credit default swaps and total return swaps that provide credit protection equivalent to guarantees will be eligible for recognition.

144. However, the credit protection will not be recognised where Banks buy credit protection through a total return swap and records the net payments received on the swap as net income, but does not record offsetting deterioration in the value of the asset that is protected (either through reductions in fair value or by an addition to reserves).

145. Other types of credit derivatives will not be eligible for recognition at this time.[27]

B.5.2 Range of Eligible Guarantors (Counter-Guarantors)/Protection Providers

146. Credit protection given by the following entities will be recognised:
   a) sovereign entities,[28] PSEs, banks[29] and securities firms with a lower risk weight than the counterparty; and

[27] Cash funded credit linked notes issued by the bank against exposures in the banking book which fulfil the criteria for credit derivatives will be treated as cash collateralised transactions.
[28] These include the Bank for International Settlements, the International Monetary Fund, the European Central Bank and the European Community, as well as those MDBs referred to in footnote 9.
[29] This includes other MDBs.

b) other entities rated A- or better. This would include credit protection provided by parent, subsidiary and affiliate companies when they have a lower risk weight than the obligor.

B.5.3 Risk Weights

147. The protected portion is assigned the risk weight of the protection provider. The uncovered portion of the exposure is assigned the risk weight of the underlying counterparty.

148. Materiality thresholds on payments below which no payment is made in the event of loss are equivalent to retained first loss positions and must be deducted in full from the capital of the bank purchasing the credit protection.

(i) Proportional cover

149. Where the amount guaranteed, or against which credit protection is held, is less than the amount of the exposure, and the secured and unsecured portions are of equal seniority, i.e. the Bank and the guarantor share losses on a pro-rata basis capital relief will be afforded on a proportional basis: i.e. the protected portion of the exposure will receive the treatment applicable to eligible guarantees/credit derivatives, with the remainder treated as unsecured.

(ii) Tranched cover

150. Where Banks transfers a portion of the risk of an exposure in one or more tranches to a protection seller or sellers and retains some level of risk of the loan and the risk transferred and the risk retained are of different seniority, Banks may obtain credit protection for either the senior tranches (e.g. second loss portion) or the junior tranches (e.g. first loss portion). In this case the rules as set forth in **Chapter IV, Securitisation Framework** will apply.

B.5.4 Currency Mismatches

151. Where the credit protection is denominated in a currency different from that in which the exposure is denominated - i.e. there is a currency mismatch - the amount of the exposure deemed to be protected will be reduced by the application of a haircut H_{FX}, i.e.

$$G_A = G \times (1 - H_{FX})$$

where:
G_A = value of credit protection adjusted for currency mismatch
G = nominal amount of the credit protection
H_{FX} = haircut appropriate for currency mismatch between the credit protection and underlying obligation.

152. The appropriate haircut based on a 10-business day holding period (assuming daily marking to - market) will be applied. If Banks use the supervisory haircuts it will be 8%. The haircuts must be scaled up using the square root of time formula, depending on the frequency of revaluation of the credit protection as described in paragraph 124.

B.5.5 Sovereign Guarantees and Counter-Guarantees

153. As specified in paragraph 47, Banks may apply a lower risk weight to exposures on sovereign (or central bank) where the bank is incorporated and where the exposure is denominated in domestic currency and funded in that currency. This treatment is also extended to portions of claims guaranteed by the sovereign (or central bank), where the guarantee is denominated in the domestic currency and the exposure is funded in that currency. A claim may be covered by a guarantee that is indirectly counter-guaranteed by a sovereign. Such a claim may be treated as covered by a sovereign guarantee provided that: C
    a) the sovereign counter-guarantee covers all credit risk elements of the claim;
    b) both the original guarantee and the counter-guarantee meet all operational requirements for guarantees, except that the counter-guarantee need not be direct and explicit to the original claim; and
    c) the supervisor is satisfied that the cover is robust and that no historical evidence suggests that the coverage of the counter-guarantee is less than effectively equivalent to that of a direct sovereign guarantee.

B.6 Maturity Mismatches

154. Banks may recognise the effects of CRM for an exposure where there is maturity mismatch only if:
    a) the hedge has an original maturity that is greater than or equal to one year[30];
    b) the hedge has a residual maturity of more than three months; and
    c) the maturity mismatch occurs when the residual maturity of the hedge is less than that of the underlying exposure.

155. Maturity mismatches is not permitted under the simple method.

B.6.1 Definition of Maturity

156. The maturity of the underlying exposure and the maturity of the hedge should both be defined conservatively. The effective maturity of the underlying exposure should be gauged as the longest possible remaining time before the counterparty is scheduled to fulfil its obligation, taking into account any applicable grace period. For the hedge, embedded options which may reduce the term of the hedge should be taken into account so that the shortest possible effective maturity is used.

157. Where a call is at the discretion of the protection seller, the maturity will always be at the first call date. If the call is at the discretion of the protection buying bank but the terms of the arrangement at origination of the hedge contain a positive incentive for the bank to call the transaction before contractual maturity, the remaining time to the first call date will be deemed to be the effective maturity. For example, where there is a step-up in cost in conjunction with a call feature or where the effective cost of cover increases over time even if credit quality remains the same or increases, the effective maturity will be the remaining time to the first call.

[30] Therefore the maturity of hedges for exposures of maturities less than one year must be matched to be recognised.

B.6.2 Risk Weights for Maturity Mismatches

158. Banks should calculate the value of the CRM adjusted for any maturity as follows:

$$Pa = P \times (t - 0.25) / (T - 0.25)$$

where:
Pa = value of the credit protection adjusted for maturity mismatch
P = credit protection (e.g. collateral amount, guarantee amount) adjusted for any haircuts
t = min (T, residual maturity of the credit protection arrangement) expressed in years
T = min (5, residual maturity of the exposure) expressed in years

Other items related to the treatment of CRM techniques

B.7 Treatment of Pools of CRM Techniques

159. In the case where Banks have multiple CRM techniques covering a single exposure (e.g. Banks have both collateral and guarantee partially covering an exposure), Banks will be required to subdivide the exposure into portions covered by each type of CRM technique (e.g. portion covered by collateral, portion covered by guarantee) and the risk-weighted assets of each portion must be calculated separately. When credit protection provided by a single protection provider has differing maturities, they must be subdivided into separate protection as well.

B.7.1 First-To-Default Credit Derivatives

160. There are cases where Banks obtain credit protection for a basket of reference names and where the first default among the reference names triggers the credit protection and the credit event also terminates the contract. In this case, Banks may recognize regulatory capital relief for the asset within the basket with the lowest risk-weighted amount, but only if the notional amount is less than or equal to the notional amount of the credit derivative.

161. With regard to Banks providing credit protection through such an instrument, if the product has an external credit assessment from an eligible credit assessment institution, the risk weight applied to securitisation tranches will be applied. If the product is not rated by an eligible external credit assessment institution, the risk weights of the assets included in the basket will be aggregated up to a maximum of 1,250% and multiplied by the nominal amount of the protection provided by the credit derivative to obtain the risk-weighted asset amount.

B.7.2 Second-To-Default Credit Derivatives

162. In the case where the second default among the assets within the basket triggers the credit protection, Banks obtaining credit protection through such a product will only be able to recognise any capital relief if first-default-protection has also be obtained or when one of the assets within the basket has already defaulted.

163. For Banks providing credit protection through such a product, the capital treatment is the same as in paragraph 161 above with one exception. The exception is that, in aggregating the risk weights, the asset with the lowest risk weighted amount can be excluded from the calculation.

C. COUNTERPARTY RISK CAPITAL REQUIREMENTS FOR DERIVATIVE CONTRACTS

164. This section sets out the permissible methods for calculating the counterparty credit risk capital charge under this framework.

165. Banks must calculate the counterparty credit risk charge for "over the counter" (OTC) derivatives in the banking and trading book.

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

167. Banks may use either the Current Exposure Method or the Standardised Approach to calculate their counterparty credit risk exposure.

C.1 Scope of Application

168. The method for computing the exposure amount under the Standardised Approach for credit risk described in this section is applicable to OTC derivatives.

169. Such instruments generally exhibit the following abstract characteristics:
   a) the transactions generate a current exposure or market value.
   b) the transactions have an associated random future market value based on market variables.
   c) the transactions generate an exchange of payments or an exchange of a financial instrument (including commodities) against payment.
   d) the transactions are undertaken with an identified counterparty against which a unique probability of default can be determined.[31]

170. Other common characteristics of the transactions to be covered may include the following:
   a) collateral may be used to mitigate risk exposure and is inherent in the nature of some transactions.
   b) short-term financing may be a primary objective in that the transactions mostly consist of an exchange of one asset for another (cash or securities) for a relatively short period of time, usually for the business purpose of financing. The two sides of the transactions are not the result of separate decisions but form an indivisible whole to accomplish a defined objective.
   c) netting may be used to mitigate the risk.

[31] Transactions for which the probability of default is defined on a pooled basis are not included in this treatment of CCR.

d) positions are frequently valued (most commonly on a daily basis), according to market variables.
e) remargining may be employed.

171. An exposure value of zero for counterparty credit risk can be attributed to OTC derivative contracts that are outstanding with a central counterparty (e.g. a clearing house). This does not apply to counterparty credit risk exposures from derivative transactions that have been rejected by the central counterparty. Furthermore, an exposure value of zero can be attributed to Banks' credit risk exposures to central counterparties that result from OTC derivative transactions or spot transactions that the Bank has outstanding with the central counterparty. This exemption extends in particular to credit exposures from clearing deposits and from collateral posted with the central counterparty. A central counterparty is an entity that interposes itself between counterparties to contracts traded within one or more financial markets, becoming the legal counterparty such that it is the buyer to every seller and the seller to every buyer. In order to qualify for the above exemptions, the central counterparty CCR exposures with all participants in its arrangements must be fully collateralized on a daily basis, thereby providing protection for the central counterparty's CCR exposures. Assets held by a central counterparty as a custodian on Banks behalf would not be subject to a capital requirement for counterparty credit risk exposure.

172. When Banks purchases credit derivative protection against banking book exposure, or against a counterparty credit risk exposure, it will determine its capital requirement for the hedged exposure subject to the criteria and general rules for the recognition of credit derivatives, i.e. substitution or double default rules as appropriate. Where these rules apply, the exposure amount for counterparty credit risk from such instruments is zero.

173. The exposure amount for counterparty credit risk is zero for sold credit default swaps in the banking book where they are treated in the framework as a guarantee provided by banks and subject to a credit risk charge for the full notional amount.

174. Under the two methods permitted by Banks, the exposure amount for a given counterparty is equal to the sum of the exposure amounts calculated for each netting set with that counterparty.

C.2 Current Exposure Method

175. Under the Current Exposure Method, Banks should calculate the current replacement cost (or exposure [E]) 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 credit equivalent amount of these instruments under the current exposure method, Banks should 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 1 – ADD-ON FACTORS OTC DERIVATIVE TRANSACTIONS

	Residual maturity of contracts		
	1 year or less	Over 1 year to 5 years	Over 5 years
Interest rate related contracts	0.000	0.005	0.015
Foreign exchange & gold contracts	0.010	0.050	0.075
Equity contracts	0.060	0.080	0.100
Precious metals (except gold)	0.070	0.070	0.080
Other commodities	0.100	0.120	0.150

176. For contracts with multiple exchanges of principal, the factors are to be multiplied by the number of remaining payments in the contract.

177. For contracts that are structured to settle outstanding exposure following specified payment dates and where the terms are reset such that the market value of the contract is zero on these specified dates, the residual maturity would be set equal to the time until the next reset date. In the case of interest 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%.

178. 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".

179. No potential future credit exposure should 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.

C.2.1 Credit Derivatives

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

TABLE 2 - ADD-ON FACTORS OTC DERIVATIVE TRANSACTIONS (CREDIT DERIVATIVES)

Credit Derivative	Category	Protection Buyer	Protection Seller
Total Return Swap	"qualifying" reference obligation	5%	5%
	Non-qualifying" reference obligation	10%	10%
Credit Default Swap	"qualifying" reference obligation	5%	5%
	Non-qualifying" reference obligation	10%	10%

181. Banks should note that:
   a) the definition of qualifying is the same as for the "qualifying" category for the treatment of specific risk in the Market Risk Framework;
   b) there will be no difference depending on residual maturity; and
   c) the protection seller of a credit default swap will only be subject to the add-on factor where it is subject to closeout upon the insolvency of the protection buyer while the underlying is still solvent. Add-on should then be capped to the amount of the unpaid premiums.

182. Where the credit derivative is a first to default transaction, the add-on will be determined by the lowest credit quality underlying in the basket, i.e. if there are any non-qualifying items in the basket, the non-qualifying reference obligation add-on should be used.

183. For second and subsequent to default transactions, underlying assets should continue to be allocated according to the credit quality, i.e. the second lowest credit quality will determine the add-on for a second to default transaction etc.

C.2.2 Collateralised OTC Transactions

184. Banks may obtain relief for eligible collateral (paragraphs 103 and 108). The calculation of the counterparty credit risk charge is detailed in paragraph 185 below:

Calculation of Counterparty Credit Risk Charge

185. The calculation of the counterparty credit risk charge for an individual contract will be as follows:

$$\textbf{counterparty charge} = [(\text{RC} + \text{add-on}) - \text{CA}] \times r \times \text{CAR}$$

where:
RC = the replacement cost,
add-on = the amount for potential future exposure calculated according to paragraphs 175 to 183.

CA = the volatility adjusted collateral amount under the comprehensive approach prescribed in paragraphs 115 to 128, or zero if no eligible collateral is applied to the transaction, r = the risk weight of the counterparty and CAR is the Bank's minimum capital adequacy ratio.

186. The treatment of bilateral netting is dealt with in paragraphs 187 through 193 below.

C.2.3 Bilateral Netting

187. Banks should give careful consideration to the issue of bilateral netting, i.e. weighting the net rather than the gross claims with the same counterparties arising out of the full range of forwards, swaps, options and similar derivative contracts. Payments netting, which is

designed to reduce the operational costs of daily settlements, will not be recognised in the capital framework since the counterparty's gross obligations are not in any way affected.

188. For capital adequacy purposes:

a) Banks may net transactions subject to novation under which any obligation between a bank and its counterparty to deliver a given currency on a given value date is automatically amalgamated with all other obligations for the same currency and value date, legally substituting one single amount for the previous gross obligations.
b) Banks may also net transactions subject to any legally valid form of bilateral netting not covered in (a), including other forms of novation.
c) in both cases (a) and (b), Banks will need to satisfy the Authority that they have:
    i. a netting contract or agreement with the counterparty which creates a single legal obligation, covering all included transactions, such that Banks would have either a claim to receive or obligation to pay only the net sum of the positive and negative mark-to-market values of included individual transactions in the event a counterparty fails to perform due to any of the following: default, bankruptcy, liquidation or similar circumstances;
    ii. written and reasoned legal opinions that, in the event of a legal challenge, the relevant courts and administrative authorities would find Banks exposure to be such a net amount under
        - The law of the jurisdiction in which the counterparty is chartered and, if the foreign branch of a counterparty is involved, then also under the law of the jurisdiction in which the branch is located;
        - The law that governs the individual transactions; and
        - The law that governs any contract or agreement necessary to affect the netting.
    iii. when necessary, the Authority after consultation with other relevant supervisors must be satisfied that the netting is enforceable under the laws of each of the relevant jurisdictions. Thus, if any of these supervisors are dissatisfied about enforceability under its laws, the netting contract or agreement will not meet this condition and neither counterparty could obtain supervisory benefit.
    iv. procedures in place to ensure that the legal characteristics of netting arrangements are kept under review in the light of possible changes in relevant law.

189. Contracts containing walk away clauses[32] will not be eligible for netting for the purpose of calculating capital requirements pursuant to this Framework.

190. When effective bilateral netting contracts are in place, RC will be the net replacement cost and the add-on will be A_{Net} as calculated according to paragraph 191. The haircut for currency risk (H_{fx}) should be applied when there is a mismatch between the collateral currency and the settlement currency. Even in the case where there are more than two

[32] A walk away clause is a provision which permits a non-defaulting counterparty to make only limited payments or no payment at all, to the estate of a defaulter, even if the defaulter is a net creditor.

currencies involved in the exposure, collateral and settlement currency, a single haircut assuming a 10-business day holding period scaled up as necessary depending on the frequency of mark-to-market will be applied. (refer to paragraphs 122 to 125).

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

$$A_{Net}=0.4*A_{gross}+0.6*N_{GR}*A_{gross}$$

where:
A_{net} = the netted figure for the weighted notional amounts on contracts with a given counterparty.

A_{gross} = the sum of individual add-on amounts (calculated by multiplying the notional amount of each OTC derivative transaction by the appropriate add-on factor set forth in Table 1) of all OTC derivative transactions with that counterparty.

N_{GR} = the ratio of the net current replacement cost to the gross current replacement cost for all OTC derivative transactions subject to qualifying bilateral netting agreements with that counterparty.

192. The numerator is equal to the net market value of all contracts entered into with the relevant counterparty. (The net market value method means the numerical value of the difference between the positive and negative market values).

193. The denominator is equal to the gross market value of all contracts with the relevant counterparty. The gross market value method means the sum of the positive market values and the numeric value of the negative market values.

C.2.4 Risk Weighting

194. After determining the credit equivalent amounts, Banks should risk weight according to the category of the counterparty.

C.3 Standardised Method

195. Banks may use the Standardised Method to calculate counterparty credit risks for "over the counter" (OTC) derivatives that have a linear risk profile.

196. The exposure amount (E) is to be calculated separately for each netting set[33]. In addition, Banks that have taken eligible financial collateral for any OTC derivative transaction or long settlement may recognise the effect of such collateral as follows:

$$E = \beta \times \max\left\{CMV - CMC; \sum_j \left|\sum_i RPT_{ij} - \sum_l RPC_{lj}\right| \times CCF_j\right\}$$

where -

CMV = the fair value of the portfolio of transactions within the netting set with a counterparty gross of collateral, i.e. $CMV = \sum_i CMV_i$, where CMV_i is the fair value of transaction i.

CMC = the fair value of the collateral assigned to the netting set[34], i.e. $CMC = \sum_l CMC_l$, where CMC_l is the fair value of collateral l.

i= the index designating transaction.
l = the index designating collateral.

j = the index designating a hedging set category. These hedging sets correspond to risk factors for which risk positions of opposite sign can be offset to yield a net risk position on which the exposure is then based

RPT_{ij} = the risk position arising from transaction i with respect to hedging set j[35].

RPC_{ij} = the risk position arising from collateral l with respect to hedging set j.

CCF_j = the CCF applicable to the hedging set j.

β = 1.4.

197. When an OTC derivative transaction with linear risk profile (e.g. a forward, a future or a swap agreement) stipulates the exchange of a financial instrument (e.g. a bond, equity, or commodity) for a payment, the payment part is referred to as the payment leg.

[33] A **Netting Set** is a group of transactions with a single counterparty that are subject to a legally enforceable bilateral netting arrangement and for which netting is recognized for regulatory capital purposes. See paragraphs 187 for the treatment of bilateral netting agreements.
A **Risk Position** is a risk number that is assigned to a transaction under the CCR standardised method using a regulatory algorithm.
A **Hedging Set** is a group of risk positions from the transactions within a single netting set for which only their balance is relevant for determining the exposure amount under the CCR standardised method.
[34] Collateral received from a counterparty has a positive sign, while collateral posted with a counterparty has a negative sign.
[35] E.g. a short-term FX forward with one leg denominated in the firm's domestic currency will be mapped into three risk positions: 1. an FX risk position, 2. a foreign currency interest rate risk position, 3. a domestic currency risk position.

198. Transactions that stipulate the exchange of payment against payment (e.g. an interest rate swap or a foreign exchange forward) consist of two payment legs. The payment legs consist of the contractually agreed gross payments, including the notional amount of the transaction.

199. Banks may disregard the interest rate risk from payment legs with a remaining maturity of less than one year. Banks may treat transactions that consist of two payment legs that are denominated in the same currency (e.g. interest rate swaps) as a single aggregate transaction. The treatment for payment legs applies to the aggregate transaction.

C.3.1 Mapping OTC Derivative Transactions into Risk Positions

200. Banks should map an OTC derivative transaction with a linear risk profile in which the underlying instrument is an equity (including equity indices) or commodity (including gold and other precious metals) and which gives rise to a payment leg to the following risk positions:
   a) a risk position in the respective equity (or equity index) or commodity (including gold and other precious metals) hedging set for the underlying instrument;
   b) an interest rate risk position for the payment leg within the appropriate interest rate hedging set; and
   c) a foreign exchange risk position in the respective currency, if the payment leg is denominated in a foreign currency.

201. Banks should map an OTC derivative transaction with a linear risk profile in which the underlying instrument is a debt instrument (such as a bond or a loan) and which gives rise to a payment leg to the following risk positions:
   a) an interest rate risk position for the underlying debt instrument within the appropriate interest rate hedging set;
   b) an interest rate risk position for the payment leg within the appropriate interest rate hedging set;
   c) a foreign exchange risk position in the respective currency, if the underlying debt instrument is denominated in a foreign currency; and
   d) a foreign exchange risk position in the respective currency, if the payment leg is denominated in a foreign currency.

202. Banks should map an OTC derivative transaction with a linear risk profile that stipulates the exchange of payment against payment to the following risk positions:
   a) an interest rate risk position for each of the payment legs within the appropriate interest rate hedging set; and
   b) a foreign exchange risk position for each payment leg that is denominated in a foreign currency, if applicable.

203. Banks should assign a value of zero to the exposure amount, whichever is applicable, of a foreign exchange basis swap transaction.

C.3.2 Determining The Size of Risk Positions

204. Banks should calculate the size of its risk positions arising from its OTC derivative transactions in accordance with Table 3 below:

TABLE 3 – COMPUTATION OF RISK POSITIONS ARISING FROM OTC DERIVATIVE TRANSACTIONS

	Risk Positions	Notional Value
a.	Any risk position arising from the underlying instruments of an OTC derivative transaction with linear risk profile where the underlying instruments are equities (including equity indices) and commodities (including gold and other precious metals).	The effective notional value (market price multiplied by quantity) of the underlying equity or commodity converted to the domestic currency of the bank.
b.	Any risk position arising from the underlying instruments of an OTC derivative transaction with linear risk profile where the underlying instruments are debt instruments or any risk position arising from the payment legs of an OTC derivative transaction with linear risk profile.	The effective notional value of the outstanding gross payments (including the notional amount) converted to the domestic currency of the bank, multiplied by the modified duration of the debt instrument or the payment leg.
c.	Any risk position arising from a credit default swap.	The notional value of the reference debt instrument multiplied by the remaining maturity of the credit default swap.
d.	Subject to paragraph 212(a) below, any risk position arising from the underlying instruments of an OTC derivative transaction with non-linear risk profile (including options and swap options) where the underlying instruments are equities (including equity indices) and commodities (including gold and other precious metals).	The delta equivalent effective notional value of the underlying equity or commodity.
e.	Subject to paragraph 212(a) below, any risk position arising from the underlying instruments of an OTC derivative transaction with non-linear risk profile (including options and swap options) where the underlying instruments are debt instruments or any risk position arising from the payment legs of all OTC derivative transactions with non-linear risk profile.	The delta equivalent effective notional value of the underlying debt instrument or payment leg multiplied by the modified duration of the debt instrument or payment leg.

205. Banks may use the following formulae to determine the size and sign of a risk position:

a) risk positions arising from all underlying instruments except debt instruments

$$= \Pr ef \times \frac{\partial v}{\partial p}$$

Where:-
Pref = the price of the underlying instrument, expressed in the reference currency.

V = the value of the financial instrument (in the case of an option, the option price; in the case of a transaction with a linear risk profile, the value of the underlying instrument itself).

P = the price of the underlying instrument, expressed in the same currency as V.

b) risk positions arising from debt instruments and the payment legs of all OTC derivative transactions = Effective notional value (or delta equivalent notional value) $\frac{\partial v}{\partial r}$

Where -
$\frac{\partial V}{\partial r}$ = modified duration

V = the value of the financial instrument (in the case of an option, the option price; in the case of a transaction with a linear risk profile, the value of the underlying instrument itself or of the payment leg, respectively).

r = the interest level.

c) where V is denominated in a currency other than the reference currency, then V shall be converted into the reference currency by multiplying with the relevant exchange rate.

C.3.3 Determining Hedging Sets

206. Banks must have internal procedures to verify that, prior to including a transaction in a hedging set; the transaction is covered by a qualifying bilateral netting agreement.

207. Risk positions must be grouped into hedging sets and for each hedging set, and the absolute value amount of the sum of the resulting risk positions ("net risk position") computed as follows:

$$net\ \ risk\ \ position = \sum_i RPT_{i_j} \sum_l RPC_{l_j}$$

Where:

RPT_{ij} = the risk position arising from transaction i with respect to hedging set j[36].

RPC_{ij} = the risk position arising from collateral l with respect to hedging set j.

208. Interest rate positions arising from the following should be mapped into one of six hedging sets as set forth in Table 4 below for each currency:
   a) interest rate positions arising from debt instruments of low specific risk[37];
   b) interest rate positions arising from payment legs; and
   c) interest rate positions arising from money deposits received from a counterparty as collateral.

TABLE 4 – HEDGING SETS FOR INTEREST RATE POSITIONS PER CURRENCY

Hedging Sets	Sovereign referenced interest rates	Non-sovereign referenced interest rates
Residual maturity or rate-adjustment frequency	One year or less	One year or less
	Over one year to five years	Over one year to five years
	Over five years	Over five years

209. For any interest rate position arising from an underlying debt instrument or a payment leg for which the interest rate is linked to a reference interest rate that represents a general market interest rate (e.g. government bond yield, money market rate, swap rate), the residual maturity is the rate-adjustment frequency which is the length of the time interval up to the next re-adjustment of the reference interest rate. Otherwise, the residual maturity is the remaining life of the underlying debt instrument, or in the case of a payment leg, the remaining life of the transaction.

210. Banks should map interest rate positions arising from the following into a single hedging set for each issuer:
   a) a reference debt instrument that underlies a credit default swap;
   b) a debt instrument of high specific risk[38];
   c) any deposits that are posted with a counterparty as collateral when that counterparty does not have debt obligations of low specific risk; and

[36] E.g. a short-term FX forward with one leg denominated in the firm's domestic currency will be mapped into three risk positions: 1. an FX risk position, 2. a foreign currency interest rate risk position, 3. a domestic currency risk position.
[37] A debt instrument is considered to be of low specific risk when it is subject to a 1.6% or lower specific risk.
[38] A debt instrument is considered to be of high specific risk when it is subject to a specific risk charge of above 1.6%

d) a payment leg that emulates a debt instrument of high specific risk (e.g. in the case of a total rate of return swap with one leg that emulates a bond) there is also one hedging set for each issuer of the reference debt instrument.

211. Underlying instruments other than debt instruments must be assigned to the same hedging set only if they are identical or similar instruments. In all other cases, they should be assigned to separate hedging sets. The similarity of instruments is established as follows:
   a) for equities, similar instruments are those of the same issuer. An equity index is treated as a separate issuer;
   b) for precious metals, similar instruments are those of the same metal. A precious metal index is treated as a separate precious metal;
   c) for commodities, similar instruments are those of the same commodity. A commodity index is treated as a separate commodity; and
   d) for electric power, similar instruments are those with delivery rights and obligations that refer to the same peak or off-peak load time interval within any 24 hour interval.

TABLE 5 –CREDIT CONVERSION FACTORS FOR NET RISK POSITION FROM A HEDGING SET

Interest rates for any risk position from a reference debt instrument that underlies a credit default swap and that is of low specific risk	0.3%
Interest rates for any risk position from a debt instrument or reference debt instrument of high specific risk	0.6%
Interest rates for any other interest rate risk position	0.2%
Exchange rates	2.5%
Gold	5.0%
Equity	7.0%
Precious metals (except gold)	8.5%
Electric Power	4%
Other commodities (excluding precious metals and electric power)	10%

212. Banks should use the Current Exposure Method to determine the exposure amount in the following cases:
   a) any transaction with a non-linear risk profile for which Banks cannot determine the delta with a model that the Authority has approved for the purposes of determining the minimum capital requirements for market risk; and
   b) any payment leg and any transaction with an underlying debt instrument for which Banks cannot determine the modified duration with a model that the Authority has approved for the purposes of determining the minimum capital requirements for market risk.

213. Netting will not be recognised when using the Current Exposure Method to an exposure referred to in paragraph 212.

C.3.4 Risk Weighting

214. After determining the credit equivalent amounts, Banks should risk weight according to the category of the counterparty.

D. CAPITAL TREATMENT FOR FAILED TRADES AND NON-DVP TRANSACTIONS

D.1 Overarching Principles

215. Banks should continue to develop, implement and improve systems for tracking and monitoring the credit risk exposures arising from unsettled and failed transactions as appropriate for producing management information that facilitates action on a timely basis.

216. Transactions settled through a delivery-versus-payment system (DvP)[39], providing simultaneous exchanges of securities for cash, expose firms to a risk of loss on the difference between the transaction valued at the agreed settlement price and the transaction valued at current market price (i.e. positive current exposure). Transactions where cash is paid without receipt of the corresponding receivable (securities, foreign currencies, gold, or commodities) or, conversely, deliverables were delivered without receipt of the corresponding cash payment (non-DvP, or free-delivery) expose firms to a risk of loss on the full amount of cash paid or deliverables delivered. The current rules set forth specific capital charges that address these two kinds of exposures.

217. The following capital treatment is applicable to all transactions on securities, foreign exchange instruments, and commodities that give rise to a risk of delayed settlement or delivery**.** This includes transactions through recognised clearing houses that are subject to daily mark-to-market and payment of daily variation margins and that involve a mismatched trade. Repurchase and reverse-repurchase agreements as well as securities lending and borrowing that have failed to settle are excluded from this capital treatment.[40]

218. In cases of a system wide failure of a settlement or clearing system, the Authority may use its discretion to waive capital charges until the situation is rectified.

219. Failure of a counterparty to settle a trade in itself will not be deemed a default for purposes of credit risk under this Framework.

D.2 Capital Requirements

220. For DvP transactions, if the payments have not yet taken place five business days after the settlement date, firms must calculate a capital charge by multiplying the positive current exposure of the transaction by the appropriate factor, according to the table 6 below.

TABLE 5 – RISK MULTIPLIER FOR DVP TRANSACTIONS

Number of working days after the agreed settlement date	Corresponding risk multiplier
From 5 to 15	8%
From 16 to 30	50%
From 31 to 45	75%
46 or more	100%

[39] For the purpose of this Framework, DvP transactions include payment-versus-payment (PvP) transactions.

[40] All repurchase and reverse-repurchase agreements as well as securities lending and borrowing, including those that have failed to settle, are treated in accordance with **Sections A** and **B** this document.

221. A reasonable transition period may be allowed for firms to upgrade their information system to be able to track the number of days after the agreed settlement date and calculate the corresponding capital charge.

222. For non-DvP transactions (i.e. free deliveries), after the first contractual payment/delivery leg, the bank that has made the payment will treat its exposure as a loan if the second leg has not been received by the end of the business day.[41] However, when exposures are not material, Banks may choose to apply a uniform 100% risk-weight to these exposures, in order to avoid the burden of a full credit assessment. If five business days after the second contractual payment/delivery date the second leg has not yet effectively taken place, the bank that has made the first payment leg will deduct from capital the full amount of the value transferred plus replacement cost, if any. This treatment will apply until the second payment/delivery leg is effectively made.

[41] If the dates when two payment legs are made are the same according to the time zones where each payment is made, it is deemed that they are settled on the same day. For example, if banks in Tokyo transfers Yen on day X (Japan Standard Time) and receives corresponding US Dollar via CHIPS on day X (US Eastern Standard Time), the settlement is deemed to take place on the same value date.

CHAPTER IV SECURITISATION FRAMEWORK

INTRODUCTION

223. Banks must use the standardised approach under the securitisation framework.

224. The calculation of the capital charge for the securitisation exposures will apply according to the rules of the banking book as set forth in **Chapter IV, Section A.7- Calculation of Capital Requirements in the Banking Book**, with limited exception to certain exposures deemed to be classified as a Correlation Trading Portfolio in the trading book.

225. For positions in a correlation trading portfolio, Banks must calculate the capital charge based on a comprehensive risk capital charge subject to strict qualitative minimum requirements set out in **Chapter IV, Section A.8 - Correlation Trading Portfolio - Trading Book**.

A. SCOPE OF TRANSACTIONS COVERED UNDER THE SECURITISATION FRAMEWORK

226. Banks must apply the securitisation framework for determining regulatory capital requirements on exposures arising from traditional and synthetic securitisations or similar structures that contain features common to both. Since securitisations may be structured in many different ways, the capital treatment of a securitisation exposure must be determined on the basis of its economic substance rather than its legal form. Similarly, the Authority will look to the economic substance of a transaction to determine whether it should be subject to the securitisation framework for purposes of determining regulatory capital. Banks are encouraged to consult with the Authority when there is uncertainty about whether a given transaction should be considered a securitisation. For example, transactions involving cash flows from real estate (e.g. rents) may be considered specialised lending exposures, if warranted.

227. A traditional securitisation is a structure where the cash flow from an underlying pool of exposures is used to service at least two different stratified risk positions or tranches reflecting different degrees of credit risk. Payments to the investors depend upon the performance of the specified underlying exposures, as opposed to being derived from an obligation of the entity originating those exposures. The stratified/tranched structures that characterise securitisations differ from ordinary senior/subordinated debt instruments in that junior securitisation tranches can absorb losses without interrupting contractual payments to more senior tranches, whereas subordination in a senior/subordinated debt structure is a matter of priority of rights to the proceeds of liquidation.

228. A synthetic securitisation is a structure with at least two different stratified risk positions or tranches that reflect different degrees of credit risk where credit risk of an underlying pool of exposures is transferred, in whole or in part, through the use of funded (e.g. credit-linked notes) or unfunded (e.g. credit default swaps) credit derivatives or guarantees that serve to hedge the credit risk of the portfolio. Accordingly, the investors' potential risk is dependent upon the performance of the underlying pool.

229. Banks' exposures to a securitisation are hereafter referred to as "securitisation exposures". Securitisation exposures can include but are not restricted to the following: asset-backed securities, mortgage-backed securities, credit enhancements, liquidity facilities, interest rate or currency swaps, credit derivatives and tranched cover as described in the section dealing with credit risk mitigation techniques **Chapter III, Section B - Credit Risk Mitigation ("CRM").** Reserve accounts, such as cash collateral accounts, recorded as an asset by the originating bank must also be treated as securitisation exposures.

230. A resecuritisation exposure is a securitisation exposure in which the risk associated with an underlying pool of exposures is tranched and at least one of the underlying exposures is a securitisation exposure. In addition, an exposure to one or more resecuritisation exposures is a resecuritisation exposure.

231. The following describes how the above definition of a resecuritisation exposure would be applied in practice to several common types of transactions. The examples below are intended to be illustrative, but not exhaustive.

232. Resecuritisation exposures capture collateralised debt obligations (CDOs) of asset-backed securities (ABS) including, for example, a CDO backed by residential mortgage-backed securities (RMBS). Moreover, it also captures a securitisation exposure where the pool contains many individual mortgage loans and a single RMBS. Therefore, even if only one of the underlying exposures is a securitisation exposure, any tranched position (e.g. senior/subordinated ABS) exposed to that pool is considered a resecuritisation exposure. Furthermore, when an instrument's performance is linked to one or more resecuritisation exposures, generally that instrument is a resecuritisation exposure. Thus, a credit derivative providing credit protection for a CDO tranche is a resecuritisation exposure.

233. Underlying instruments in the pool being securitised may include but are not restricted to the following: loans, commitments, asset-backed and mortgage-backed securities, corporate bonds, equity securities, and private equity investments. The underlying pool may include one or more exposures.

234. Key definitions and general terminology are located in **Annex 3 - Definitions and General Terminology (Securitisations)**.

A.1 Operational Conditions for the Recognition of Risk Transference

235. The following operational conditions are applicable to the securitisation framework:

A.2 Operational Conditions for Traditional Securitisations

236. An originating bank may exclude securitised exposures from the calculation of risk-weighted assets only if all of the following conditions have been met. Banks meeting these conditions must still hold regulatory capital against any securitisation exposures they retain. C

a) Significant credit risk associated with the securitised exposures has been transferred to third parties.

b) The transferor does not maintain effective or indirect control over the transferred exposures. The assets are legally isolated from the transferor in such a way (e.g.

through the sale of assets or through sub participation) that the exposures are put beyond the reach of the transferor and its creditors, even in bankruptcy or receivership. These conditions must be supported by an opinion provided by a qualified legal counsel. The transferor is deemed to have maintained effective control over the transferred credit risk exposures if it: (i) is able to repurchase from the transferee the previously transferred exposures in order to realize their benefits; or (ii) is obligated to retain the risk of the transferred exposures. The transferor's retention of servicing rights to the exposures will not necessarily constitute indirect control of the exposures.

c) The securities issued are not obligations of the transferor. Thus, investors who purchase the securities only have claim to the underlying pool of exposures.
d) The transferee is an SPE and the holders of the beneficial interests in that entity have the right to pledge or exchange them without restriction.
e) Clean-up calls must satisfy the conditions set forth in paragraph 240.

237. The securitisation does not contain clauses that (i) require the originating bank to alter systematically the underlying exposures such that the pool's weighted average credit quality is improved unless this is achieved by selling assets to independent and unaffiliated third parties at market prices; (ii) allow for increases in a retained first loss position or credit enhancement provided by the originating bank after the transaction's inception; or (iii) increase the yield payable to parties other than the originating bank, such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the underlying pool. **C**

A.3 Operational Conditions for Synthetic Securitisations

238. For synthetic securitisations, Banks may use CRM techniques (i.e. collateral, guarantees and credit derivatives) for hedging the underlying exposure for risk-based capital purposes if all of the conditions outlined below are satisfied: **C**

a) Credit risk mitigants must comply with the requirements as set forth in **Chapter III, Section B - Credit Risk Mitigation ("CRM")** of this Framework.
b) Eligible collateral is limited to that specified in paragraphs 103 and 108 . Eligible collateral pledged by SPEs may be recognised.
c) Eligible guarantors are defined in paragraphs 151 in **Chapter III, Section B.5.2 - Range of Eligible Guarantors**. Banks may not recognise SPEs as eligible guarantors in the securitisation framework.
d) Banks must transfer significant credit risk associated with the underlying exposure to third parties.
e) The instruments used to transfer credit risk may not contain terms or conditions that limit the amount of credit risk transferred, such as those provided below:
    i. Clauses that materially limit the credit protection or credit risk transference (e.g. significant materiality thresholds below which credit protection is deemed not to be triggered even if a credit event occurs or those that allow for the termination of the protection due to deterioration in the credit quality of the underlying exposures);

ii. Clauses that require the originating bank to alter the underlying exposures to improve the pool's weighted average credit quality;
iii. Clauses that increase banks' cost of credit protection in response to deterioration in the pool's quality;
iv. Clauses that increase the yield payable to parties other than the originating bank, such as investors and third-party providers of credit enhancements, in response to a deterioration in the credit quality of the reference pool; and
v. Clauses that provide for increases in a retained first loss position or credit enhancement provided by the originating bank after the transaction's inception.

f) An opinion must be obtained from a qualified legal counsel that confirms the enforceability of the contracts in all relevant jurisdictions. Clean-up calls must satisfy the conditions set forth in paragraph 240.

239. For synthetic securitisations, the effect of applying CRM techniques for hedging the underlying exposure is treated according to **Chapter III, Section B - Credit Risk Mitigation ("CRM")**. In cases where there is a maturity mismatch, the capital requirement will be determined in accordance guidance in **Chapter III, Section B.6 - Maturity Mismatches**. When the exposures in the underlying pool have different maturities, the longest maturity must be taken as the maturity of the pool. Maturity mismatches may arise in the context of synthetic securitisations when, for example, a bank uses credit derivatives to transfer part or all of the credit risk of a specific pool of assets to third parties. When the credit derivatives unwind, the transaction will terminate. This implies that the effective maturity of the tranches of the synthetic securitisation may differ from that of the underlying exposures. Originating banks of synthetic securitisations must treat such maturity mismatches in the following manner:

a) For securitisation purposes Banks must deduct all retained positions that are unrated or rated below investment grade. Accordingly, when deduction is required, maturity mismatches are not taken into account.
b) For all other securitisation exposures, Banks must apply the maturity mismatch treatment set forth in **Chapter III, Section B.6 - Maturity Mismatches**.

A.4 Operational Conditions and Treatment of Clean-Up Calls

240. For securitisation transactions that include a clean-up call, no capital will be required due to the presence of a clean-up call if the following conditions are met: *C*

a) The exercise of the clean-up call must not be mandatory, in form or in substance, but rather must be at the discretion of the originating bank;
b) the clean-up call must not be structured to avoid allocating losses to credit enhancements or positions held by investors or otherwise structured to provide credit enhancement; and
c) the clean-up call must only be exercisable when 10% or less of the original underlying portfolio, or securities issued remain, or, for synthetic securitisations, when 10% or less of the original reference portfolio value remains.

241. Securitisation transactions that include a clean-up call that does not meet all of the criteria stated in paragraph 240 result in a capital requirement for the originating bank. For a traditional securitisation, the underlying exposures must be treated as if they were not *C*

securitised. Additionally, Banks must not recognise in regulatory capital any gain-on-sale, as defined in paragraph 251. For synthetic securitisations, the bank purchasing protection must hold capital against the entire amount of the securitised exposures as if they did not benefit from any credit protection. If a synthetic securitisation incorporates a call (other than a clean-up call) that effectively terminates the transaction and the purchased credit protection on a specific date, Banks must treat the transaction in accordance with paragraph 239 and maturity mismatches criteria under **Chapter III, Section B.6 Maturity Mismatches**.

242. If a clean-up call, when exercised, is found to serve as a credit enhancement, the exercise of the clean-up call must be considered a form of implicit support provided by Banks and must be treated in accordance with the supervisory guidance pertaining to securitisation transactions. C

A.5 Operational Requirements for Use of External Credit Assessments

243. The following operational criteria concerning the use of external credit assessments apply in the securitisation framework: C

a) To be eligible for risk-weighting purposes, the external credit assessment must take into account and reflect the entire amount of credit risk exposure the Bank has with regard to all payments owed to it. For example, if the Bank is owed both principal and interest, the assessment must fully take into account and reflect the credit risk associated with timely repayment of both principal and interest.

b) The external credit assessments must be from an eligible external credit assessment institution (ECAI) as recognised by the Authority in accordance with **Annex 1- External Credit Assessment** with the following exception. In contrast with paragraph 5 of **Annex 1- External Credit Assessment,** an eligible credit assessment must be publicly available. In other words, a rating must be published in an accessible form and included in the ECAI's transition matrix. Consequently, ratings that are made available only to the parties to a transaction do not satisfy this requirement.

c) Eligible ECAIs must have a demonstrated expertise in assessing securitisations, which may be evidenced by strong market acceptance.

d) Banks must apply external credit assessments from eligible ECAIs consistently across a given type of securitisation exposure. Furthermore, Banks cannot use the credit assessments issued by one ECAI for one or more tranches and those of another ECAI for other positions (whether retained or purchased) within the same securitisation structure that may or may not be rated by the first ECAI. Where two or more eligible ECAIs can be used and these assess the credit risk of the same securitisation exposure differently, paragraph 13 of **Annex 1- External Credit Assessment** will apply.

e) Where CRM is provided directly to an SPE by an eligible guarantor defined in paragraph 146 and is reflected in the external credit assessment assigned to a securitisation exposure(s), the risk weight associated with that external credit assessment should be used. In order to avoid any double counting, no additional capital recognition is permitted. If the CRM provider is not recognised as an eligible guarantor in paragraph 146, the covered securitisation exposures should be treated as unrated.

f) In the situation where a credit risk mitigant is not obtained by the SPE but rather applied to a specific securitisation exposure within a given structure (e.g. ABS tranche),

the Bank must treat the exposure as if it is unrated and then use the CRM treatment to recognise the hedge.

g) Banks are not permitted to use any external credit assessment for risk weighting purposes where the assessment is at least partly based on unfunded support provided by the Bank. For example, if a bank buys ABCP where it provides an unfunded securitisation exposure extended to the ABCP programme (e.g. liquidity facility or credit enhancement), and that exposure plays a role in determining the credit assessment on the ABCP, the Bank must treat the ABCP as if it were not rated. The Bank must continue to hold capital against the other securitisation exposures it provides (e.g. against the liquidity facility and/or credit enhancement).

h) The treatment described in paragraph 243(g) above is also applicable to exposures held in the trading book. A Bank's capital requirement for such exposures held in the trading book can be no less than the amount required under the banking book treatment.

i) Banks are permitted to recognise overlap in their exposures, consistent with paragraph 262. For example, a Bank providing a liquidity facility supporting 100% of the ABCP issued by an ABCP programme and purchasing 20% of the outstanding ABCP of that programme could recognise an overlap of 20% (100% liquidity facility + 20% CP held – 100% CP issued = 20%). If a Bank provided a liquidity facility that covered 90% of the outstanding ABCP and purchased 20% of the ABCP, the two exposures would be treated as if 10% of the two exposures overlapped (90% liquidity facility + 20% CP held – 100% CP issued = 10%). If a Bank provided a liquidity facility that covered 50% of the outstanding ABCP and purchased 20% of the ABCP, the two exposures would be treated as if there were no overlap. Such overlap could also be recognised between specific risk capital charges for exposures in the trading book and capital charges for exposures in the banking book, provided that the Bank is able to calculate and compare the capital charges for the relevant exposures.

A.6 Operational Conditions for Credit Analysis

244. Banks must have the information specified below in order to use the securitisation framework. If a Bank does not perform the level of due diligence specified, it will have to deduct the securitisation exposure from the capital base. **C**

a) As a general rule, Banks must, on an ongoing basis, have a comprehensive understanding of the risk characteristics of its individual securitisation exposures, whether on balance sheet or off balance sheet, as well as the risk characteristics of the pools underlying its securitisation exposures.

b) Banks must be able to access performance information on the underlying pools on an on-going basis in a timely manner. Such information may include, as appropriate: exposure type; percentage of loans 30, 60 and 90 days past due; default rates; prepayment rates; loans in foreclosure; property type; occupancy; average credit score or other measures of creditworthiness; average loan-to-value ratio; and industry and geographic diversification. For resecuritisation, Banks should have information not only on the underlying securitisation tranches, such as the issuer name and credit quality, but also on the characteristics and performance of the pools underlying the securitisation tranches.

c) Bust must have a thorough understanding of all structural features of a securitisation transaction that would materially impact the performance of the Bank's exposures to the transaction, such as the contractual waterfall and waterfall-related triggers, credit enhancements, liquidity enhancements, market value triggers, and deal-specific definitions of default.

A.7 Calculation of Capital Requirements in the Banking Book

245. Banks are required to hold regulatory capital against all of their securitisation exposures, including those arising from the provision of credit risk mitigants to a securitisation transaction, investments in asset-backed securities, retention of a subordinated tranche, and extension of a liquidity facility or credit enhancement, as set forth in the following sections. Repurchased securitisation exposures must be treated as retained securitisation exposures.

A.7.1 Risk Weights

246. The risk-weighted asset amount of a securitisation exposure is computed by multiplying the amount of the position by the appropriate risk weight determined in accordance with Tables 1 to 3 below.

247. For positions with long-term ratings of B+ and below and short-term ratings other than A-1/P-1, A-2/P-2, A-3/P-3, deduction from capital as defined in paragraph 250 is required. Deduction is also required for unrated positions with the exception of the circumstances described in paragraphs 253 to 257.

TABLE 1- LONG TERM RATING CATEGORY (*FOR ORIGINATORS*)[42]

Moodys	Aaa to Aa3	A1 to A3-	Baa1+ to Baa3	Ba1+ to Ba3	Below B1	
S&P/Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	Below B+	Unrated
Risk Weight Securitisation	20%	50%	100%	Deduction	Deduction	Deduction
Risk Weight Resecuritisation	40%	100%	225%	Deduction	Deduction	Deduction

TABLE 2- LONG TERM RATING CATEGORY (FOR INVESTORS)[43]

Moodys	Aaa to Aa3	A1 to A3	Baa1 to Baa3	Ba1 to Ba3	Below B1	
S&P/Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	Below B+	Unrated
Risk Weight Securitisation	20%	50%	100%	350%	Deduction	Deduction
Risk Weight Resecuritisation	40%	100%	225%	650%	Deduction	Deduction

[42] Originating banks as defined in Annex 3 - Definitions and General Terminology (Securitisations) (Definitions) must deduct all retained securitisation exposures rated below investment grade (i.e. BBB-).

[43] Only third-party investors, as opposed to banks that serve as originators, may recognise external credit assessments that are equivalent to BB+ to BB- for risk weighting purposes of securitisation exposures.

TABLE 3 - SHORT TERM RATING CATEGORY

Credit assessment	A-1/P-1[44]	A-2/P-2	A-3/P-3	Others[45]
Risk weight	20%	50%	100%	Deduction

248. Banks must apply a CCF and then risk weight the resultant credit equivalent amount for unrated off-balance sheet exposures, if the exposure is rated, a CCF of 100% must be applied.

249. The capital treatment of positions retained by originators, liquidity facilities, credit risk mitigants, and securitisations of revolving exposures are identified separately. The treatment of clean-up calls is provided in Section A.4 above.

A.7.2 Deduction

Deduction from Tier 1 and Tier 2

250. When Banks are required to deduct a securitisation exposure from regulatory capital, the deduction must be taken 50% from Tier 1 and 50% from Tier 2 with the one exception noted in paragraph 251. Credit-enhancing interest-only strips (net of the amount that must be deducted from Tier 1 as in paragraph 251 below) are deducted 50% from Tier 1 and 50% from Tier 2. Deductions from capital may be calculated net of any specific provisions taken against the relevant securitisation exposures.

Deduction from Tier 1

251. Banks are required to deduct from Tier 1 any increase in equity capital resulting from a securitisation transaction, such as that associated with expected future margin income (FMI) resulting in a gain-on-sale that is recognised in regulatory capital. Such an increase in capital is referred to as a "gain-on-sale" for the purposes of the securitisation framework.

A.7.3 Implicit Support

252. When Banks provide implicit support to a securitisation, they must, at a minimum, hold capital against all of the exposures associated with the securitisation transaction as if they had not been securitised. Additionally, Banks would not be permitted to recognise in regulatory capital any gain-on-sale, as defined in paragraph 251. Furthermore, Banks are required to disclose publicly that it has provided non-contractual support, and the capital impact of doing so.

A.7.4 Exceptions to General Treatment of Unrated Securitisation Exposures

253. As noted in the Tables 1 to 3 above, unrated securitisation exposures must be deducted with the following exceptions:
   a) the unrated most senior exposure in a securitisation;

[44] The notations follow the methodology used by Standard & Poor's and by Moody's Investors Service. The A-1 rating of Standard & Poor's includes both A-1+ and A-1-.
[45] This category includes all non-prime and B or C ratings.

b) exposures that are in a second loss position or better in ABCP programmes and meet the requirements outlined in paragraph 256; and
c) eligible liquidity facilities.

A.7.4.1 Treatment of Unrated Most Senior Securitisation Exposures

254. If the most senior exposure in a securitisation of a traditional or synthetic securitisation is unrated, Banks that hold or guarantee such an exposure may determine the risk weight by applying the "look-through" treatment, provided the composition of the underlying pool is known at all times. Banks are not required to consider interest rate or currency swaps when determining whether an exposure is the most senior in a securitisation for the purpose of applying the "look-through" approach.

255. In the "look-through" treatment, the unrated most senior position receives the average risk weight of the underlying exposures subject to the supervisory review. Where Banks are unable to determine the risk weights assigned to the underlying credit risk exposures, the unrated position must be deducted.

A.7.4.2 Treatment of Exposures in a Second Loss Position or Better in ABCP Programmes

256. Deduction is not required for those unrated securitisation exposures provided by sponsoring Banks to ABCP programmes that satisfy the following requirements:
a) The exposure is economically in a second loss position or better and the first loss position provides significant credit protection to the second loss position;
b) The associated credit risk is the equivalent of investment grade or better; and
c) The bank holding the unrated securitisation exposure does not retain or provide the first loss position.

257. Where these conditions are satisfied, the risk weight is the greater of (i) 100% or (ii) the highest risk weight assigned to any of the underlying individual exposures covered by the facility.

A.7.4.3 Treatment of Exposures to Eligible Liquid Facilities

258. Banks are permitted to treat off-balance sheet securitisation exposures as eligible liquidity facilities if the following minimum requirements are satisfied: **C**
a) The facility documentation must clearly identify and limit the circumstances under which it may be drawn. Draws under the facility must be limited to the amount that is likely to be repaid fully from the liquidation of the underlying exposures and any seller-provided credit enhancements. In addition, the facility must not cover any losses incurred in the underlying pool of exposures prior to a draw, or be structured such that draw-down is certain (as indicated by regular or continuous draws);
b) The facility must be subject to an asset quality test that precludes it from being drawn to cover credit risk exposures that are in default as defined **Annex 3 - Definitions and General Terminology (Securitisations)**. In addition, if the exposures that a liquidity facility is required to fund are externally rated securities, the facility can only be used to fund securities that are externally rated investment grade at the time of funding;

c) The facility cannot be drawn after all applicable (e.g. transaction-specific and programme-wide) credit enhancements from which the liquidity would benefit have been exhausted; and
d) Repayment of draws on the facility (i.e. assets acquired under a purchase agreement or loans made under a lending agreement) must not be subordinated to any interests of any note holder in the programme (e.g. ABCP programme) or subject to deferral or waiver.

259. For eligible liquidity facilities as defined in paragraph 258 above and where the conditions for use of external credit assessments are not met, the risk weight applied to the exposure's credit equivalent amount is equal to the highest risk weight assigned to any of the underlying individual exposures covered by the facility.

Credit conversion factors for off-balance sheet exposures

260. For risk-based capital purposes, Banks must determine whether, according to the criteria outlined above, an off-balance sheet securitisation exposure qualifies as an 'eligible liquidity facility' or an 'eligible servicer cash advance facility'. All other off-balance sheet securitisation exposures will receive a 100% CCF.

261. Banks may apply a 50% CCF to the eligible liquid facility regardless of the maturity of the facility where off-balance sheet exposures satisfy the conditions in paragraph 258. However, if an external rating of the facility itself is used for risk-weighting the facility, a 100% CCF must be applied.

Treatment of overlapping exposures

262. Banks may provide several types of facilities that can be drawn under various conditions. The same bank may be providing two or more of these facilities. Given the different triggers found in these facilities, it may be the case that Banks provide duplicative coverage to the underlying exposures. In other words, the facilities provided by Banks may overlap since a draw on one facility may preclude (in part) a draw under the other facility.

263. In the case of overlapping facilities provided by the same bank, the Bank does not need to hold additional capital for the overlap. Rather, it is only required to hold capital once for the position covered by the overlapping facilities (whether they are liquidity facilities or credit enhancements). Where the overlapping facilities are subject to different conversion factors, Banks must attribute the overlapping part to the facility with the highest conversion factor. However, if overlapping facilities are provided by different banks, each Bank must hold capital for the maximum amount of the facility.

Eligible servicer cash advance facilities

264. If contractually provided for, servicers may advance cash to ensure an uninterrupted flow of payments to investors so long as the servicer is entitled to full reimbursement and this right is senior to other claims on cash flows from the underlying pool of exposures. Such undrawn servicer cash advances or facilities that are unconditionally cancellable without prior notice may be eligible for a 0% CCF.

A.7.5 Treatment of Credit Risk Mitigation for Securitisation Exposures

265. Credit risk mitigants include guarantees, credit derivatives, collateral and on-balance sheet netting. Collateral in this context refers to that used to hedge the credit risk of a securitisation exposure rather than the underlying exposures of the securitisation transaction. The treatment below applies to Banks that have obtained a credit risk mitigant on a securitisation exposure.

266. When Banks other than the originator provide credit protection to a securitisation exposure, they must calculate a capital requirement on the covered exposure as if it were an investor in that securitisation. If Banks provide protection to an unrated credit enhancement, they must treat the credit protection provided as if they were directly holding the unrated credit enhancement.

Collateral

267. Eligible collateral is limited to that recognised under the standardised approach for credit risk mitigation. Collateral pledged by SPEs may be recognised.

Guarantees and credit derivatives

268. Credit protection provided by the entities listed in paragraph 146**,** may be recognised. SPEs cannot be recognised as eligible guarantors.

269. Where guarantees or credit derivatives fulfil the minimum operational conditions as specified in paragraphs 137 to 145, Banks can take account of such credit protection in calculating capital requirements for securitisation exposures.

270. Capital requirements for the guaranteed/protected portion will be calculated according to CRM for the standardised approach as specified in paragraphs 147 to 153.

Maturity mismatches

271. For the purpose of setting regulatory capital against a maturity mismatch, the capital requirement will be determined in accordance with **Chapter III, Section B.6 - Maturity Mismatches.** When the exposures being hedged have different maturities, the longest maturity must be used.

A.7.6 Treatment of Early Amortization Provisions

A.7.6.1 Capital Requirement

Scope

272. Originating Banks are required to hold capital against all or a portion of the investors' interest (i.e. against both the drawn and undrawn balances related to the securitised exposures) when:
   a) It sells exposures into a structure that contains an early amortization feature; and
   b) the exposures sold are of a revolving nature. These involve exposures where the borrower is permitted to vary the drawn amount and repayments within an agreed

limit under a line of credit (e.g. credit card receivables and corporate loan commitments).

273. The capital requirement should reflect the type of mechanism through which an early amortization is triggered.

274. For securitisation structures wherein the underlying pool comprises revolving and term exposures, Banks must apply the relevant early amortization treatment (outlined below in paragraphs 280 to 289) to that portion of the underlying pool containing revolving exposures.

275. Banks are not required to calculate a capital requirement for early amortizations in the following situations:
   a) Replenishment structures where the underlying exposures do not revolve and the early amortization ends the ability of the Bank to add new exposures;
   b) transactions of revolving assets containing early amortization features that mimic term structures (i.e. where the risk on the underlying facilities does not return to the originating bank);
   c) structures where banks securitise one or more credit line(s) and where investors remain fully exposed to future draws by borrowers even after an early amortization event has occurred;
   d) the early amortization clause is solely triggered by events not related to the performance of the securitised assets or the selling bank, such as material changes in tax laws or regulations.

Maximum capital requirement

276. For Banks subject to the early amortization treatment, the total capital charge for all of its positions will be subject to a maximum capital requirement (i.e. a 'cap') equal to the greater of:
   a) that required for retained securitisation exposures, or
   b) the capital requirement that would apply had the exposures not been securitised.

277. In addition, Banks must deduct from the entire amount of any gain-on-sale and credit enhancing interest only strips arising from the securitisation transaction in accordance with paragraphs 250 and 251.

Calculation of Capital Requirement

278. The originator's capital charge for the investors' interest is determined as the product of:
   a) the investors' interest,
   b) the appropriate CCF (as discussed in the paragraph below), and
   c) the risk weight appropriate to the underlying exposure type, as if the exposures had not been securitised.

279. As described below, the CCFs depend upon whether the early amortization repays investors through a controlled or non-controlled mechanism. They also differ according to whether the securitised exposures are uncommitted retail credit lines (e.g. credit card

receivables) or other credit lines (e.g. revolving corporate facilities). A line is considered uncommitted if it is unconditionally cancellable without prior notice.

A.7.6.2 Determination of CCFs for Controlled Early Amortization Features

280. An early amortization feature is considered controlled when the definition as specified in Annex 3 - Definitions and General Terminology (Securitisations) is satisfied.

Uncommitted retail exposures

281. For uncommitted retail credit lines (e.g. credit card receivables) in securitisations containing controlled early amortization features, Banks must compare the three-month average excess spread defined in Annex 3 - Definitions and General Terminology (Securitisations) to the point at which the Bank is required to trap excess spread as economically required by the structure (i.e. excess spread trapping point).

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

283. Banks must divide the excess spread level by the transaction's excess spread trapping point to determine the appropriate segments and apply the corresponding conversion factors, as outlined in the following table.

A.7.6.3 Controlled Early Amortization Features

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

284. Banks are required to apply the conversion factors set forth above for controlled mechanisms to the investors' interest referred to in paragraph 278.

Other exposures

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

A.7.6.4 Determination of CCFs for Non-Controlled Early Amortization Features

286. Early amortization features that do not satisfy the definition of a controlled early amortization as specified in **Annex 3 - Definitions and General Terminology (Securitisations)** will be considered non-controlled and treated as follows.

Uncommitted retail exposures

287. For uncommitted retail credit lines (e.g. credit card receivables) in securitisations containing non-controlled early amortization features, Banks must make the comparison described in paragraph 281 and 282 above.

288. Banks must divide the excess spread level by the transaction's excess spread trapping point to determine the appropriate segments and apply the corresponding conversion factors, as outlined in the following table.

A.7.6.5 Non-Controlled Early Amortization Features

	Uncommitted	Committed
Retail credit lines	**3-month average excess spread Credit Conversion Factor ("CCF")** 133.33%of trapping point or more **0% CCF** Less than 133.33% to 100% of trapping point **5% CCF** Less than 100% to 75% of trapping point **15% CCF** Less than 75% to 50% of trapping point **50% CCF** Less than 50% of trapping point **100% CCF**	**100% CCF**
Non-retail Credit Lines	**100% CCF**	**100% CCF**

Other exposures

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

A.8 Correlation Trading Portfolio - Trading Book

290. For the purposes of this framework, the correlation trading portfolio incorporates securitisation exposures and nth-to-default credit derivatives that include all reference entities that are single-name products, such as single-name credit derivatives, for which a liquid two-way market exists[46]. This will include commonly traded indices based on these reference entities.

291. The correlation trading portfolio does not include,

a) resecuritisation positions and derivatives of securitisation positions that do not provide a pro-rata share in the proceeds of a securitisation tranche (i.e. options on a securitisation tranche, or a synthetically leveraged superior-senior tranche);
b) position which reference an underlying that would be treated as a retail exposure, a residential mortgage exposure or a commercial mortgage exposure under the standardised approach to credit risk; and
c) positions which reference a claim on a special purpose entity.

292. Banks may include positions that hedge positions described in paragraph 291 that are neither securitisation exposures and nth-to-default credit derivatives, provided a liquid two-way market exists for the instrument or its underlying.

A.8.1 Minimum Capital Requirement

293. The minimum capital requirement is expressed in two separately calculated charges, one applying to the "specific risk" of each security, and the other to the general market risk where long and short positions in different securities or instruments can be offset. The specific rules for positions within the correlation trading portfolio are detailed in paragraphs 294 to 299 below. Banks should use either maturity method or the duration method to measure the general market risk.

A.8.2 Specific Risk Capital Charges for The Correlation Trading Portfolio

294. For securitisation and resecuritisation exposures, Banks should compute the specific risk capital charges for the net long positions and net short positions[47] using the capital charges in Table 6 below.

295. These specific risk capital charges must be applied by Banks using the standardised approach for credit risk. Banks must deduct from capital the following:

[46] A two-way market is deemed to exist where there are independent bona fide offers to buy and sell so that a price reasonably related to the last sales price or current bona fide competitive bid and offer quotations can be determined within one day and settled at such price within a relatively short time conforming to trade custom.

[47] See the rules on netting for specific risk in Chapter IV-Section A.6 Permissible Netting for closely matched positions.

a) positions with long-term ratings of B+ and below;
b) positions with short-term ratings other than A-1/P-1, A-2/P-2, A-3/P-3; and
c) unrated positions with the exception of the circumstances described in section A.7.4 above and paragraph 296 below.

296. For unrated exposures, Banks may calculate the capital charge as 8% of the weighted average risk weight that would be applied to the securitised exposures under the standardised approach, multiplied by a concentration ratio. If the concentration ratio is 12.5 or higher the position must be deducted from capital. This concentration ratio is equal to the sum of the nominal amounts of all the tranches divided by the sum of the nominal amounts of the tranches junior to or pari passu with the tranche in which the position is held including that tranche itself.

297. The resulting specific risk capital charge must not be lower than any specific risk capital charge applicable to a rated more senior tranche. If a Bank is unable to determine the specific risk capital charge as described above or prefers not to apply the treatment described above to a position, it must deduct that position from capital.

TABLE 6 - SPECIFIC RISK CAPITAL CHARGE FOR POSITIONS COVERED UNDER THE SECURITISATION FRAMEWORK

Moodys	Aaa to Aa3	A1 to A3-	Baa1+ to Baa3	Ba1+ to Ba3	Below B1	Unrated
S&P/Fitch	AAA to AA-	A+ to A-	BBB+ to BBB-	BB+ to BB-	Below B+	Unrated
Short Term rating	A-1/P-1	A-2/P-2	A-3/P-3		Below A-3/P-3	Unrated
Securitisation	1.6	4%	8%	28%	Deduction	Deduction
Resecuritisation	3.2%	8%	18%	52%	Deduction	Deduction

298. For nth-to-default credit derivative exposures, Banks must compute the specific risk capital charge as follows:
a) First-to-default credit derivative is the lesser of:
   i. the sum of the specific risk capital charges for the individual reference credit instruments in the basket, and
   ii. the maximum possible credit event payment under the contract.
b) Where a Bank has a risk position in one of the reference credit instruments underlying a first-to-default credit derivative and this credit derivative hedges the Bank's risk position, the Bank is allowed to reduce with respect to the hedged amount both the capital charge for specific risk for the reference credit instrument and that part of the capital charge for specific risk for the credit derivative that relates to this particular reference credit instrument.
c) Where a Bank has multiple risk positions in reference credit instruments underlying a first-to-default credit derivative this offset is allowed only for that underlying reference credit instrument having the lowest specific risk capital charge.

d) An nth-to-default credit derivative with n greater than 1 is the lesser of:
   i. the sum of the specific risk capital charges for the individual reference credit instruments in the basket but disregarding the (n-1) obligations with the lowest specific risk capital charges; and
   ii. the maximum possible credit event payment under the contract.

e) For nth-to-default credit derivatives with n greater than 1, no offset of the capital charge for specific risk with any underlying reference credit instrument is allowed.
f) If a first or other nth-to-default credit derivative is externally rated, then the protection seller must calculate the specific risk capital charge using the rating of the derivative and apply the respective securitisation risk weights as in Table 6.
g) The capital charge against each net nth-to-default credit derivative position applies irrespective of whether the Bank has a long or short position, i.e. obtains or provides protection.

299. The total specific risk capital charge for the correlation trading portfolio (securitisation and nth to default exposures), is the greater of:
   a) the total specific risk capital charge that applies to the net long positions from the net long correlation trading exposures combined, and
   b) the total specific risk capital charge that applies to the net short positions from the net short correlation trading exposures combined.

CHAPTER V OPERATIONAL RISK

INTRODUCTION

300. This section provides the rules and guidance on the operational risk capital requirements under the Standardised Approach only. The respective rules are highlighted.

301. 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 but excludes strategic risk and reputational risk. The causes for operational risks are internal processes, people, systems and external events. A detailed list of operational events is included in **Annex 4 - Detailed Loss Event Type by Classification.**

302. The Basel II framework allows three methods for calculating the operational risk capital charges in a continuum of increasing sophistication and risk sensitivity, these are:
   a) The Basic Indicator Approach
   b) The Standardised Approach; and
   c) The Advanced Measurement Approach.

303. Banks may use the Basic Indicator Approach, the Standardised Approach or the Alternative Standardised Approach.

304. Banks are encouraged to move towards the Standardised Approach as they develop more sophisticated operational risk measurement systems and practices.

305. Banks will not be allowed to choose to revert to the Basic Indicator Approach once they have been approved for the Standardised or the Alterative Standardised Approaches without the Authority's approval. However, if the Authority determines that Banks using the Standardised Approach no longer meet the qualifying criteria for the Standardised Approach, it may require these Banks to revert to the Basic Indicator Approach for some or all of their operations. This is until they meet the conditions specified by the Authority for returning to a more advanced approach.

A. APPROACHES

A.1 The Basic Indicator Approach ("BIA")

306. Banks applying the BIA must hold an operational risk capital charge. This capital charge must be equal to the average of 15%[48] of the positive annual gross income of the previous three years.

307. When calculating the capital charge, Banks should note that:
   a) if any of the three most recent financial years have been shortened or extended, the positive annual gross income should be recalculated on a twelve-month basis through simple proportioning,
   b) in place of using 15% of the positive annual gross income of the previous three years, operations that have been conducted for less than one year should use the following:

[48] The Alpha Factor

c) the sum of net interest income and net non interest income set forth in the institution's business plan for the first year,
d) 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[49].
e) the above concept applies if any of the previous three years have reported losses.

BIA Formula: $K_{BIA} = [\Sigma (GI_{1...n} \times 15\%)]/n.$

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.

308. Gross income is the sum of net interest income and net non-interest income[50]. It is intended that 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[51];
i. exclude realised profits/losses from the sale of securities in the banking book[52]; and
ii. exclude extraordinary or irregular items as well as income derived from insurance.

309. Banks applying this approach should comply with the principles established in the **Rule and Statement of Guidance on Operational Risk Management for Banks**.

A.2 The Standardised Approach ("SA")

A.2.1 Qualifying Criteria

310. In order to qualify for use of the SA, Banks must comply with the Rule on Operational Risk Management for Banks and adopt the principles set out in the supporting Statement of Guidance on Operational Risk Management for Banks. In addition:
a) Bank must develop specific policies and have documented criteria for mapping gross income for current business lines and activities into the standardised framework
b) The criteria must be reviewed and adjusted for new or changing business activities as appropriate
c) The rules for business line mapping set out in **Annex 6 - Rules for Business Line Mapping under the Standardised Approach** must systematically track relevant operational risk data including material losses by business line or aggregated business lines
d) As part of Banks' internal operational risk assessment system, the operational risk assessment system must be closely integrated into the risk management processes of the Bank.

C

[49] If negative gross income distorts a bank's Pillar 1 capital charge, the Authority will consider appropriate supervisory action.
[50] As defined by Banks' general accepted accounting standard (GAAP).
[51] In contrast to fees paid for services that are outsourced, fees received by banks that provide outsourcing services shall be included in the definition of gross income.
[52] Realised 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.

A.2.2 Measurement and Mapping Process

311. In the SA, Banks' activities are divided into eight business lines: corporate finance, trading & sales, retail banking, commercial banking, payment & settlement, agency services, asset management, and retail brokerage. The business lines are defined in further detail in **Annex 5 - Mapping of the Business Lines**.

312. Banks should develop specific policies and document the criteria for mapping its current business activities to the appropriate business lines in accordance with **Annex 6 - Rules for Business Line Mapping under the Standardised Approach** In addition, Banks should review and adjust these policies and criteria for new or changing business activities as appropriate.

313. 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. 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.

314. The capital charge for each business line is calculated by multiplying gross income by a factor (denoted as beta) assigned to that 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.

315. 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. In any given year, negative gross income from a business line will be given a nil capital charge. Therefore only positive gross income will be given a capital charge. The operational risk capital requirement for each business line in each year shall be calculated as follows:

$$\textbf{SA Formula: } K_{SA} = \{\Sigma \text{ years}_{1\text{-}3\ max} [\Sigma (GI_{1\text{-}8} \times \beta_{1\text{-}8}), 0]\}/3$$

Where
K_{SA} = the capital charge under the Standardised Approach.
$GI_{1\text{-}8}$ = annual gross income in a given year for each of the eight business lines.
$\beta_{1\text{-}8}$ = a fixed percentage, set by the Committee.

The values of beta are detailed below:

Business Lines	Beta Factors
Corporate finance ($ß_1$)	18%
Trading and sales ($ß_2$)	18%
Retail Banking ($ß_3$)	12%
Commercial Banking ($ß_4$)	15%
Payment and Settlement ($ß_5$)	18%
Agency Services ($ß_6$)	15%
Asset Management ($ß_7$)	12%
Retail Brokerage ($ß_8$)	12%

A.3 The Alternative Standardised Approach ("ASA")

316. The ASA is a special variant of the SA in which an alternative indicator is used to calculate the capital requirement for the retail and commercial banking business lines.

A.3.1 Qualifying Criteria

317. In order to qualify for use of the ASA, Banks must meet all of the requirements set out in **Annex 7 - Rules for Business Line Mapping under the Alternative Standardised Approach** and satisfy the Authority that this approach provides an improved basis by, for example, avoiding double counting of risks. Once Banks have been allowed to use the ASA, they will not be allowed to revert to use of the SA without the Authority's prior approval. C

A.3.2 Measurement and Mapping

318. **Annex 7 - Rules for Business Line Mapping under the Alternative Standardised Approach** provides the rules to Banks for business line mapping under the ASA. 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, SMEs treated as retail, and purchased retail receivables. The relevant indicator shall be a normalized income indicator equal to the three-year average of the total nominal amount of loans and advances multiplied by 0.035.

319. For the retail and/or commercial banking business lines, the loans and advances must consist of the total drawn amounts in the corresponding credit portfolios. For the commercial banking business line, securities held in the non-trading book must also be included.

ASA Formula: $K_{ASA} = \beta_{RB} \times 0.035 \times LA_{RB}$

Where
K_{ASA}= the capital charge for the retail banking business line.
β_{RB} = the beta for the retail banking business line.
LA_{RB}= total outstanding retail loans and advances (non-risk weighted and gross of provisions), averaged over the past three years.

320. The book value of securities held in the banking book should also be included. Under the ASA, Banks may aggregate retail and commercial banking (if they wish to) using a fixed beta of 15%.

321. Similarly, those Banks that are unable to disaggregate their gross income into the other six business lines can aggregate the total gross income for these six business lines using a beta of 18%.

CHAPTER VI MARKET RISK

INTRODUCTION

322. Market risk is defined as the risk of losses in on and off-balance-sheet positions arising from movements in market prices. The risks subject to this requirement are:
   a) The risks pertaining to interest rate related instruments and equities in the trading book;
   b) Foreign exchange risk and commodities risk throughout Banks (i.e. the trading book and the non-trading book).

323. Financial positions in the trading book give rise to market risk and counterparty risk that is subject to capital requirements and is known as the Market Risk capital requirement. The determination of positions that qualify for the trading book is detailed in **Chapter VII Determination of the Trading Book.**

324. Banks that consider the use of a trading book must receive a written approval of their trading book policy statements from the Authority. The trading book policy statement should be reviewed annually and where necessary updated. The senior management and the board of directors must approve this policy and its respective amendments. Compliance with these policies and procedures must be fully documented and subject to periodic internal audit. C

325. The capital requirements for market risk are to be applied on a worldwide consolidated basis. Where appropriate, the Authority 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[53].

326. The offsetting rules as set forth in these sections may also be applied on a consolidated basis. 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.

327. However the Authority will 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.

[53] The positions of less than wholly-owned subsidiaries would be subject to the generally accepted accounting principles in the country where the parent company is supervised.

A. INTEREST RATE RISK

328. This section describes the Standardised Approach for the measurement of the interest rate risk in Banks' trading book, in order to determine the capital requirement for this risk. The instruments captured include fixed-rate and floating rate debt securities and instruments that behave like them, such as non-convertible preference shares.

329. The following list includes financial instruments in the trading book that will attract an interest rate risk capital requirement:
   a) bonds/loan stocks, debentures etc,
   b) non-convertible preference shares,
   c) convertible securities such as preference shares and bonds, which are treated as debt instruments,
   d) mortgage backed securities and other securitised assets,
   e) Certificates of Deposit,
   f) treasury bills, local authority bills, bankers acceptances,
   g) commercial paper,
   h) euronotes, medium term notes, etc,
   i) floating rate notes, FRCDs etc,
   j) foreign exchange forward positions,
   k) derivatives based on the above instruments and interest rates, and
   l) interest rate exposure embedded in other financial instruments.

330. The minimum capital requirement is expressed in terms of two separately calculated charges, one applying to the "specific risk" of each position, and the other to the interest rate risk in the portfolio, termed "general market risk". The total capital requirement for interest rate risk is the sum of the general market interest rate risk capital requirements across currencies, and the specific risk capital requirements.

A.1 Specific Risk Calculation

331. The capital charge for specific risk is designed to protect against a movement in the price of an individual instrument, owing to factors related to the individual issuer. Banks:
   a) must calculate their specific risk as the sum of the market values of the individual net positions (whether they are long or short) multiplied by the appropriate risk percentage in Table 7; and
   b) must not offset between different issues.

332. In measuring the specific risk for interest rate related instruments, Banks may net, by value, long and short positions (including positions in derivatives) in the same debt instrument to generate the individual net position in that instrument. Instruments will be considered to be the same where the issuer is the same, they have an equivalent ranking in liquidation, and the currency, the coupon and the maturity are the same.

333. The specific risk capital requirement is determined by weighting the current market value of each individual net position, whether long or short, according to its allocation among the following broad categories:

TABLE 7– SPECIFIC RISK WEIGHTING FOR ISSUER RISK

	External Credit Assessment	Specific Risk Capital Charge
Government (including CIG)	AAA to AA-	0%
	A+ to BBB-	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)
	BB+ to B-	8%
	Below B-	12%
	Unrated	8%
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 standardised approach, e.g.:	
	BB+ to BB- Below BB- Unrated	8% 12% 8%

334. The category of "government" debt instruments will include all forms of government paper, including bonds, treasury bills and other short-term instruments.

335. The Authority reserves the right to apply a higher specific risk weight to securities issued by certain foreign governments, especially to securities denominated in a currency other than that of the issuing government.

336. The "qualifying" category includes rated investment grade securities issued by or fully guaranteed by:
   a) public sector entities,
   b) multilateral development banks,
   c) securities firm that are subject to equivalent rules of this Framework,
   d) plus other securities, that are:
      i. rated investment grade by at least two internationally recognised credit rating agencies approved by the Authority; or
      ii. rated investment grade by one credit rating agency and not less than investment grade by an ECAI approved by the Authority[54]; or
      iii. deemed to be of comparable investment quality by Banks, provided that the issuer is rated investment grade by at least two internationally recognised credit rating agencies approved by the Authority; or

[54] Please refer to Annex 1- External Credit Assessment

iv. unrated (subject to the approval of the Authority), but deemed to be of comparable investment quality by Banks and where the issuer has securities listed on a recognised stock exchange.

A.2 Specific Risk Rules for Unrated Debt Securities

337. Unrated securities may be included in the "qualifying" category when they are (subject to the Authority's approval) unrated, but deemed to be of comparable investment quality by Banks, and the issuer has securities listed on a recognised stock exchange.

A.3 Specific Risk Rules for Non-Qualifying Issuers

338. Instruments issued by a non-qualifying issuer will receive the same specific risk charge as a non-investment grade corporate borrower under the Standardised Approach for credit risk.

339. In certain cases the specific risk for debt instruments which have a high yield to redemption relative to government debt securities may be considerably underestimated, the Authority will on a case by case basis:
   a) apply a higher specific risk charge to such instruments; and/or
   b) disallow offsetting for the purposes of defining the extent of general market risk between such instruments and any other debt instruments.

A.4 General Market Risk Calculation

340. The capital requirements for general market risk are designed to capture the risk of loss arising from changes in market interest rates, i.e. the risk of parallel and non-parallel shifts in the yield curve. The Authority will allow Banks to use either the "maturity" method or a "duration" method to measure the general market risk. In each method, the capital charge is the sum of the following four components:
   a) the net short or long position in the whole trading book;
   b) a small proportion of the matched positions in each time-band (the "vertical disallowance");
   c) a larger proportion of the matched positions across different time-bands (the "horizontal disallowance"); and
   d) a net charge for positions in options, where appropriate.

341. Separate maturity ladders should be used for each currency and capital charges should be calculated for each currency separately and then summed, by applying the prevailing foreign exchange spot rates, with no off-setting between positions of opposite sign.

342. In the case of those currencies in which the value and volume of business is insignificant, separate maturity ladders for each currency are not required. Instead, Banks may construct a single maturity ladder and slot, within each appropriate time-band, the net long or short position for each currency. However, these individual net positions are to be summed within each time-band, irrespective of whether they are long or short positions, to arrive at the gross position figure for the time-band.

A.4.1 Maturity Method

343. Banks should use the following steps for calculating the general market risk for interest rate positions.

a) Slot individual long or short positions in interest-rate related instruments, including derivatives into a maturity ladder comprising thirteen time-bands (or fifteen time-bands in the case of zero-coupon and deep-discount instruments, defined as those with a coupon of less than 3%), on the following basis:

i. fixed rate instruments are allocated according to their residual term to maturity (irrespective of embedded puts and calls), and whether their coupon is below 3%;

ii. floating rate instruments are allocated according to the residual term to the next repricing date;

iii. positions in derivatives and all positions in repos, reverse repos and similar products are decomposed into their components within each time band. Derivative instruments are covered in greater detail in **Chapter VI, Section A.5 - Interest Rate Derivatives**;

iv. opposite positions of the same amount in the same issues (but not different issues by the same issuer), whether actual or notional, can be omitted from the interest rate maturity framework, as well as closely matched swaps, forwards, futures and FRAs which meet the conditions set forth in **Section A.6 - Permissible Netting for Closely Matched Positions (Specific and General Market Risk)** and **Section A.7 Permissible Netting for Positions Hedged By Credit Derivatives**.

TABLE 8- MATURITY METHOD: TIME-BANDS AND RISK WEIGHTS

	Bands		
Zone	Coupon of 3% or more	Coupon of under 3%	Weighting Factors
Zone 1	1 month & under	1 month & under	
	1 to 3 months	1 to 3 months	X 0.0020
	3 to 6 months	3 to 6 months	X 0.0040
	6 to 12 months	6 to 12 months	X 0.0070
Zone 2	1 to 2 years	1 to 1.9 years	X 0.0125
	2 to 3 years	1.9 to 2.8 years	X 0.0175
	3 to 4 years	2.8 to 3.6 years	X 0.0225
Zone 3	4 to 5 years	3.6 to 4.3 years	X 0.0275
	5 to 7 years	4.3 to 5.7 years	X 0.0325
	7 to 10 years	5.7 to 7.3 years	X 0.0375
	10 to 15 years	7.3 to 9.3 years	X 0.0450
	15 to 20 years	9.3 to 10.6 years	X 0.0525
	Over 20 years	10.6 to 12 years	X 0.0600
		12 to 20 years	X 0.0800
		Over 20 years	X 0.1250

b) In each maturity band, multiply the market values of the individual long and short net positions by the respective risk weighting factors.

c) Match the positions within each maturity band (vertical disallowance) where a maturity band has both weighted long and short positions. The extent to which the one offsets the other is called the matched weighted position. The remainder (the excess of the weighted long positions over the weighted short positions, or vice versa, within a band) is called the unmatched weighted position for that band.

d) Match positions, across maturity bands, within each zone (horizontal disallowance - level 1) where a zone has both unmatched weighted long and short positions for various bands. The extent to which the one offsets the other is called the matched weighted position for that zone. The remainder (the excess of the weighted long positions over the weighted short positions, or vice versa, within a zone) is called the unmatched weighted position for that zone.

e) Match positions, across zones (horizontal disallowance - level 2). The unmatched weighted long or short position in zone 1 may be offset against the unmatched weighted short or long position in zone 2. The extent to which the unmatched weighted positions in zones 1 and 2 are offsetting is described as the matched weighted position between zones 1 and 2.

f) Any residual unmatched weighted long or short position in zone 2 may be matched by offsetting the unmatched weighted short or long position in zone 3. The extent to which the unmatched positions in zones 2 and 3 are offsetting is described as the matched weighted position between zones 2 and 3.

g) The matching process in (e) and (f) above may be carried out in reverse order (i.e. zones 2 and 3, followed by zones 1 and 2).

344. After steps (f) and (g) above, any residual unmatched weighted long or short position in zone 1 may be matched by offsetting the unmatched weighted short or long position in zone 3. The extent to which the unmatched positions in zones 1 and 3 are offsetting is described as the matched weighted position between zones 1 and 3.

345. Any residual unmatched weighted positions, following the matching within and between maturity bands and zones as described above, will be summed.

346. The general interest rate risk capital requirement is the sum of:

TABLE 9 MATURITY METHOD: DISALLOWANCE SCHEDULE

(i) Matched weighted positions within each maturity band	x 10%
(ii) Matched weighted positions in zone 1	x 40%
(iii) Matched weighted positions in zone 2	x 30%
(iv) Matched weighted positions in zone 3	x 30%
(v) Matched weighted positions between zones 1 & 2	x 40%
(vi) Matched weighted positions between zones 2 & 3	x 40%
(vii) Matched weighted positions between zones 1 & 3	x 100%
(viii) Residual unmatched weighted positions	x 100%

347. Item (i) is referred to as the vertical disallowance, items (ii) through (iv) as the first set of horizontal disallowances, and items (v) through (vii) as the second set of horizontal disallowances.

A.4.2 Duration Method

348. An alternative approach to measuring the exposure to general market risk is the duration method. The duration method is a more accurate method of measuring movements in the yield curve by calculating the price sensitivity of each position separately.

TABLE 10 - DURATION METHOD: TIME-BANDS AND RISK WEIGHTS

Zones	Time Bands	Assumed changes on Yield
Zone 1	1 month & under	X 1.0%
	1 to 3 months	X 1.0%
	3 to 6 months	X 1.0%
	6 to 12 months	X 1.0%
Zone 2	1 to 1.9 years	X 0.9%
	1.9 to 2.8 years	X 0.8%
	2.8 to 3.6 years	X 0.75%
Zone 3	3.6 to 4.3 years	X 0.75%
	4.3 to 5.7 years	X 0.7%
	5.7 to 7.3 years	X 0.65%
	7.3 to 9.3 years	X 0.6%
	9.3 to 10.6 years	X 0.6%
	10.6 to 12 years	X 0.6%
	12 to 20 years	X 0.6%
	Over 20 years	X 0.6%

349. The steps in the calculation of the general market risk for interest rate positions, under the duration method, are set forth below:

a) Determine the Yield-to-Maturity (YTM)[55] for each individual net position in fixed rate and floating rate instruments, based on the current market value;
b) Calculate the modified duration-weighted position for each individual net position by multiplying its current market value by the modified duration and the assumed change in yield. (Calculate, the modified duration for each debt instrument using the dirty price, i.e. price including accrued interest);
c) Allocate the market value of individual net positions according to their respective time-bands based on their modified duration. (Table 3)

d) Match positions within each time band (vertical disallowance) where a time band has both weighted long and short positions, the extent to which the one offsets the other is called the matched weighted position. The remainder (i.e. the excess of the weighted long positions over the weighted short positions, or vice versa, within a band) is called the unmatched weighted position for that band.

e) Match positions, across time bands, within each zone (horizontal disallowance - level 1), where a zone has both unmatched weighted long and short positions for various bands, the extent to which the one offsets the other is called the matched weighted position for that zone. The remainder (i.e. the excess of the weighted long positions over the weighted short positions, or vice versa, within a zone) is called the unmatched weighted position for that zone.

f) Match positions across zones (horizontal disallowance - level 2).The unmatched weighted long or short position in zone 1 may be offset against the unmatched weighted short or long position in zone 2. The extent to which the unmatched weighted positions in zones 1 and 2 are offsetting is described as the matched weighted position between zones 1 and 2.

g) Any residual unmatched weighted long or short position in zone 2 may be matched by offsetting the unmatched weighted short or long position in zone 3. The extent to which the unmatched positions in zones 2 and 3 are offsetting is described as the matched weighted position between zones 2 and 3.

h) The calculations in steps (f) and (g) above may be carried out in reverse order (i.e. zones 2 and 3, followed by zones 1 and 2).

i) Any residual unmatched weighted long or short position in zone 1 may be matched by offsetting the unmatched weighted short or long position in zone 3. The extent to which the unmatched positions in zones 1 and 3 are offsetting is described as the matched weighted position between zones 1 and 3.

j) Any residual unmatched weighted positions, following the matching within and between maturity bands and zones as described above, will be summed.

[55] The YTM for fixed rate instruments is determined without any regard to whether the instrument is coupon bearing, or whether the instrument has any embedded options. In all cases, YTM for fixed rate instruments is calculated with reference to the final maturity date and, for floating rate instruments, with reference to the next repricing date

350. The general interest rate risk capital requirement is the sum of:

TABLE 11 DURATION METHOD: DISALLOWANCE SCHEDULE

Matched weighted positions within each maturity band	x 5%
Matched weighted positions in zone 1	x 40%
Matched weighted positions in zone2	x 30%
Matched weighted positions in zone 3	x 30%
Matched weighted positions between zones 1 & 2	x 40%
Matched weighted positions between zones 2 & 3	x 40%
Matched weighted positions between zones 1 & 3	x 100%
Residual unmatched weighted positions	x 100%

A.5 Interest Rate Derivatives

351. Interest rate derivatives and off-balance-sheet instruments in the trading book that react to changes in interest rates (e.g. forward rate agreements, other forward contracts, bond futures, interest rate and cross-currency swaps, options and forward foreign exchange contracts) should be included in this section.

352. Interest rate options are either "carved out" together with the associated underlying instruments, in instances where the Bank also holds a position in the underlying, or are incorporated in the general market risk measurement framework based on the delta-plus method. The calculation of the appropriate capital charge for interest rate options are set forth in **Section E – Option Risk**.

353. Derivative positions will attract specific risk only when they are based on an underlying instrument or security. For instance, where the underlying exposure is an interest rate exposure, as in a swap based upon inter-bank rates, there will be no specific risk, but only counterparty risk. A similar treatment applies to FRAs, forward foreign exchange contracts and interest rate futures. However, for a swap based on a bond yield, or a futures contract based on a debt security or an index representing a basket of debt securities, the credit risk of the issuer of the underlying bond will generate a specific risk capital requirement. Future cash flows derived from positions in derivatives will generate counterparty risk requirements related to the counterparty in the trade, in addition to position risk requirements (specific and general market risk) related to the underlying security.

354. Derivatives should be converted to positions in the relevant underlying and become subject to specific and general market risk charges. For the purpose of calculation by the standard formulae, the amounts reported are the market values of the principal amounts of the underlying or of the notional underlying. For instruments where the apparent notional amount differs from the effective notional amount, Banks should use the latter.

355. Examples of notional positions of interest rate derivatives and cash positions of repos and reverse repos are illustrated in paragraphs 356 to 366 below:

A.5.1 Futures Contracts or Forwards on Debt Security

356. Banks should treat a purchased (sold) futures contract or forward on a single debt security as:
   a) a notional long (short) position in the underlying debt security (or the cheapest to deliver, taking into account the conversion factor, where the contract can be satisfied by delivery of one from a range of securities); and
   b) a notional short (long) position in a zero coupon zero-specific-risk security with a maturity equal to the expiry date of the futures contract or forward.

A.5.2 Futures Contracts or Forwards on a Basket or Index of Debt Securities

357. Banks should convert a futures contract or forward on a basket or index of debt securities into forwards on single debt securities as follows:
   a) in the case of a single currency basket or index of debt securities –
      i. a series of forwards, one for each of the constituent debt securities in the basket or index, of an amount which is a proportionate part of the total underlying instruments of the contract according to the weighting of the relevant debt security in the basket or index; or
      ii. a single forward on a hypothetical debt security; or
   b) in the case of multiple currency baskets or indices of debt securities –
      i. a series of forwards (using the method described in sub-paragraph (a)(i) above); or
      ii. a series of forwards, each one on a hypothetical debt security to represent one of the currencies in the basket or index, of an amount which is a proportionate part of the total underlying instruments of the contract according to the weighting of the relevant currency in the basket or index, and treat the resulting positions according to paragraph 357 above.

358. Banks should assign the hypothetical debt security in paragraph 357(a) (ii) a specific risk charge and a general market risk charge equal to the highest that would apply to the debt securities in the basket or index, even if they relate to different debt securities and regardless of the proportion of those debt securities in the basket or index.

A.5.3 Interest Rate Futures and FRAs

359. Banks should treat a short (long) interest rate futures contract or a long (short) FRA as follows –

	Long Position	Short position
Bank purchases an interest rate future or sells an FRA	A long position in a zero coupon zero-specific-risk security with a maturity equal to the expiry date of the future (or settlement of the FRA) plus the maturity of the notional borrowing/deposit.	A short position in a zero coupon zero-specific-risk security with a maturity equal to the expiry date of the future (or settlement date of the FRA).
Bank sells an interest rate future or buys an FRA.	A long position in a zero coupon zero-specific-risk security with a maturity equal to the expiry date	A short position in a zero coupon zero-specific-risk security with a maturity equal to the

	of the future (or settlement date of the FRA).	expiry date of the future (or settlement date of the FRA) plus the maturity of the notional borrowing/deposit.

A.5.4 Cash Positions of Repos and Reverse Repos

360. Banks should treat the forward leg of a repurchase (repo) and reverse repurchase agreements (reverse repos) as a short notional position in the repurchase agreement and a long notional position in the reverse repurchase agreement.

361. The repos or reverse repos must have:
   a) a value equal to the cash leg;
   b) a maturity equal to that of the repo or reverse repo agreement; and
   c) a coupon equal to:
      i. zero, if the next interest payment date coincides with the maturity date; or
      ii. the interest rate on the contract, if any interest is due to be paid before the maturity date.

A.5.5 Interest Rate Swaps or Foreign Exchange Swaps

362. Banks should treat interest rate swaps or foreign exchange swaps as two notional positions as follows –

	Long Position	Short position
Bank receives fixed and pays floating	A long position in a zero specific-risk security with a coupon equal to the fixed rate of the swap and a maturity equal to the maturity of the swap.	A short position in a zero specific- risk security with a coupon equal to the floating rate and a maturity equal to the reset date.
Bank receives floating and pays fixed	A long position in a zero specific-risk security with a coupon equal to the floating rate and a maturity equal to the reset date.	A short position in a zero specific-risk security with a coupon equal to the fixed rate of the swap and a maturity equal to the maturity of the swap.
Bank receives and pays floating	A long position in a zero specific-risk security with a coupon equal to the floating rate and a maturity equal to the reset date.	A short position in a zero specific- risk security with a coupon equal to the floating rate and a maturity equal to the reset date.

A.5.6 Deferred Start Interest Rate Swaps or Foreign Currency Swaps

363. Banks should treat interest rate swaps or foreign currency swaps with a deferred start as the two notional positions shown below:

	Long Position	Short position
Bank receives fixed and pays floating	A long position in a zero-specific-risk security with a coupon equal to the fixed rate of the swap plus a maturity that equals the maturity of the swap.	A short position in a zero-specific-risk security with a coupon equal to the fixed rate of the swap plus a maturity that equals the start date of the swap.
Bank pays fixed and receives floating	A long position in a zero-specific-risk security with a coupon equal to the fixed rate of the swap plus a maturity that equals the start date of the swap.	A short position in a zero-specific-risk security with a coupon equal to the fixed rate of the swap plus a maturity that equals the maturity of the swap.

364. Where a swap has a different structure from those discussed above, it may be necessary to adjust the underlying notional principal amount, or the notional maturity of one or both legs of the transaction.

365. Banks with large swap books may use alternative formulae for these swaps to calculate the positions to be included in the maturity or duration ladder. One method would be to first convert the cash flows required by the swap into their present values. For this purpose, each cash flow should be discounted using the zero coupon yields, and a single net figure for the present value of the cash flows entered into the appropriate time-band using procedures that apply to zero or low coupon (less than 3%) instruments. An alternative method would be to calculate the sensitivity of the net present value implied by the change in yield used in the duration method.

366. Banks which propose to use the approaches described in paragraph 365, or any other similar alternative formulae, should obtain the prior written approval of the Authority. The Authority will consider the following factors before approving any alternative methods for calculating the swap positions:
   a) whether the systems proposed to be used are accurate;
   b) whether the positions calculated fully reflect the sensitivity of the cash flows to interest rate changes and are entered into the appropriate time-bands; and
   c) whether the positions are denominated in the same currency.

A.5.7 Credit Derivatives

367. Credit derivatives should be converted into notional positions in the relevant reference obligations and use the current market value of the principal amount of the reference obligations to calculate its market risk capital requirement for interest rate risk, except in the case of credit linked notes, where the current market value of the notes shall be used.

368. The table below summarises how credit derivatives should be treated in the trading book:

TABLE 12– SUMMARY OF TREATMENT OF CREDIT DERIVATIVES

		Long Position	Short position
Credit default swap	General market risk	Long position in a zero-specific-risk security if there are any premiums or interest payments to be paid	Short position in a zero-specific-risk security if there are any premiums or interest payments to be paid
	Specific risk	Long position in the reference obligation, or long position in the swap if it is a qualifying debt security	Short position in the reference obligation, or short position in the swap if it is a qualifying debt security
Total rate of return swap	General market risk	Long position in the reference obligation, and short position in a zero-specific-risk security if there are any premiums or interest payments to be paid	Short position in the reference obligation, and long position in a zero-specific-risk security if there are any premiums or interest payments to be paid
	Specific Risk	Long position in the reference obligation	Short position in the reference obligation
Credit Linked Notes	General market risk	Long position in the note issuer	Short position in the note issuer
	Specific risk	Long position in the note issuer and long position in the reference obligations, or long position in the note issuer if it is a qualifying debt security	Short position in the reference obligations, or short position in the note issuer if it is a qualifying debt security
First-to-default	General market risk	Long position in a zero-specific-risk security if there are any premiums or interest payments to be paid	Short position in a zero-specific-risk security if there are any premiums or interest payments to be paid
	Specific risk	Long position in each of the reference obligations with the specific risk capital requirement capped at the maximum payout possible, or long position in the credit derivative if it is a qualifying debt security	Short position in the reference obligation with the highest specific risk capital requirement (for an open position), or short position in the reference obligation with the lowest specific risk capital requirement (for a hedging position)
Second-to-default	General market risk	Long position in a zero-specific-risk security if there are any premiums or interest payments to be paid	Short position in a zero-specific-risk security if there are any premiums or interest payments to be paid

		Long Position	Short position
	Specific risk	Long position in each of the reference obligations except the reference obligation with the lowest specific risk capital requirement, with the specific risk capital requirement capped at the maximum payout possible, or long position in the credit derivative if it is a qualifying debt security	Short position in the reference obligation with the highest specific risk capital requirement (for an open position), or short position in the reference obligation with the second lowest specific risk capital requirement if there is first-to-default protection or in the reference obligation with the lowest specific capital requirement if one of the reference obligations has defaulted (for a hedging position)

A.6 Permissible Netting for Closely Matched Positions (Specific and General Market Risk)

369. For the purpose of calculating the specific risk and market risk capital charge for positions in interest rate derivatives, Banks may exclude from the interest rate risk calculation, altogether, the 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 a forward and its corresponding underlying may also be fully offset, albeit the leg representing the time to expiry of the future is included in the calculation.

370. When the future or the forward comprises a range of deliverable instruments, offsetting of positions in the futures or forward contract and its underlying is only permitted 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. This netting is permitted only where Banks have sold the futures contract or forward.

371. Banks may offset opposite positions in the same category of interest rate-related instruments if –
   a) the positions relate to the same underlying instruments,
   b) the positions are of the same notional value; and
   c) the positions are denominated in the same currency, and –
      i. in the case of futures contracts, the offsetting positions in the notional or underlying instrument to which the futures contract relates are for identical products and mature within seven days of each other;
      ii. in the case of swaps and FRAs, the reference rates (for floating rate positions) are identical and the coupons are closely matched (i.e. within 15 basis points); and

iii. in the case of swaps, FRAs and forwards, the next interest fixing date or, for fixed coupon positions or forwards, the residual maturity correspond as follows:
- on the same day, if the next interest fixing date or residual maturity is less than one month;
- within seven days, if the next interest fixing date or residual maturity is between one month and a year; or
- within 30 days, if the next interest fixing date or residual maturity is more than a year.

A.7 Permissible Netting for Positions Hedged By Credit Derivatives

372. For the purpose of calculating the specific risk capital charge for a credit derivative and its hedged position, Banks may recognise full allowance 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 in the following situations:
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).

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

374. Banks may recognise an 80% offset when the value of two legs (i.e. long and short) always move in the opposite direction but not broadly to the same extent. This would be the case when
a) a long cash position is hedged by a credit default swap or a credit linked note (or vice versa);
b) there is an exact match in terms of –
i. the reference obligation;
ii. the maturity of both the reference obligation and the credit derivative; and
iii. the currency of the underlying instrument; and
c) the key features of the credit derivative contract (e.g. credit event definitions, settlement mechanisms) do not cause the price movement of the credit derivative to materially deviate from the price movement of the cash position.

375. The 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.

376. Banks may recognise 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 paragraph 372(b), but there is an asset mismatch between the reference obligation and the underlying exposure; and where.
b) the reference obligation ranks pari passu with or is junior to the underlying instrument; and
c) the underlying instrument and reference obligation share the same obligor and legally enforceable cross-default or cross acceleration clauses are in place;

d) the position is captured in paragraph 372(a) or 373 but there is a currency or maturity mismatch between the credit protection and the underlying asset.
e) The position is captured in paragraph 374 but there is an asset mismatch between the cash position and the credit derivative. However, the underlying asset is included in the (deliverable) obligations in the credit derivative documentation.

377. In each of the cases in paragraphs 372 to 376, 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) only the higher of the two capital requirements will apply.

378. In cases not captured in paragraphs 372 to 376, a specific risk capital charge will be assessed against both sides of the position.

379. With regard to Banks' first-to-default and second-to-default products in the trading book, the basic concepts developed for the banking book will also apply. Banks holding long positions in these products (e.g. buyers of basket credit linked notes) would be treated as if they were protection sellers and would be required to 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 off-set specific risk for one of the underlying reference exposures, i.e. the asset with the lowest specific risk charge.

A.8 Calculation of Capital Charge for Derivatives

380. After calculating the derivatives notional positions, taking account of the permissible offsetting of matched positions, the capital charges for specific and general market risk for interest rate derivatives are calculated in the same manner as for cash positions, as described earlier in this section.

381. The table below summarises the treatment of interest rate derivatives for market risk purposes:

TABLE 13– SUMMARY OF INTEREST RATE DERIVATIVES

	Instrument	Specific risk charge*	General market risk charge
Exchange-traded futures	- Government** debt security	No	Yes, as two positions
	- Corporate debt security	Yes	Yes, as two positions
	- Index on interest rates (e.g. LIBOR)	No	Yes, as two positions
	- Index on basket of debt securities	Yes	Yes, as two positions
O f	- Government** debt security	No	Yes, as two positions

	Instrument	Specific risk charge*	General market risk charge
	- Corporate debt security	Yes	Yes, as two positions
	- Index on interest rates	No	Yes, as two positions
FRAs		No	Yes, as two positions
Swaps	- Based on interbank rates	No	Yes, as two positions
	- Based on Government** bond yields	No	Yes, as two positions
	- Based on corporate bond yields	Yes	Yes, as two positions
	- Forward foreign exchange	No	Yes, as one position in each currency
Options	- Government** debt security	No	Either (a) or (b) as below: (a) Carve out together with the associated hedging positions, and use the simplified approach;
	- Corporate debt security	Yes	
	- Index on interest rates	No	
	- FRAs, swaps	No	(b) General market risk charge according to the delta-plus method
	* This is the specific risk charge relating to the issuer of the instrument. There is a separate charge for the counterparty credit risk.		
	** The specific risk only applies to government debt securities that are rated below AA-		

B. EQUITY RISK

382. This section sets out the minimum capital requirements to cover the risk of holding or taking positions in equities in Banks' trading book. Banks which hold equity positions (whether long or short) in the trading book is exposed to the risk that the value of individual equity positions relative to the market may move against Banks (specific risk) and that the equity market as a whole may move against it (general risk).
   a) The following list includes financial instruments in the trading book, including forward positions, to which equity position risk capital requirements will apply:
   b) common stocks, whether voting or non-voting;
   c) convertible preference securities (non-convertible preference securities are treated as bonds);
   d) convertible debt securities (which behave like equities);
   e) commitments to buy or sell equity securities;
   f) equity derivatives based on the above instruments.

383. As with interest rate related instruments, the minimum capital requirement for equities is expressed in terms of two separately calculated charges, one applying to the "specific risk" of holding a long or short position in an individual equity, and the other to the "general market risk" of holding a long or short position in the market as a whole.

B.1 Allowable Netting of Matched Positions

384. Banks may net long and short positions in the same equity instrument, arising either directly or through derivatives, to generate the individual net position in that instrument. For example, a future in a given equity may be offset against an opposite cash position in the same equity, albeit the interest rate risk arising out of the future should be calculated separately in accordance with the rules set forth in **Chapter VI, Section A - Interest Rate Risk**.

B.2 Specific Risk

385. Specific risk is defined as the Bank's gross equity positions (i.e. the sum of all long equity positions and of all short equity positions) and is calculated for each country or equity market. For each national market in which the Bank holds equities, it should sum the market values of its individual net positions, irrespective of whether they are long or short positions, to produce the overall gross equity position for that market. The capital charge for specific risk is 8%.

B.3 General Market Risk

386. The general market risk is the difference between the sum of the long positions and the sum of the short positions (i.e. the overall net position) in each national equity market. The general market equity risk measure is 8% of the overall net position in each national market.

B.4 Equity Derivatives

387. In order to calculate the specific and general market risk using the standardised approach, equity derivative positions should be converted into notional underlying equity positions, whether long or short. All equity derivatives and off-balance-sheet positions which are

affected by changes in equity prices should be included in the measurement framework. This includes futures and swaps on both individual equities and on stock indices.

388. The following guidelines in paragraphs 389 to 394 will apply to the calculation of positions in different categories of equity derivatives.

B.4.1 Depository Receipts

389. Banks should treat a depository receipt as a notional position in the underlying equity.

B.4.2 Convertibles

390. Where Banks include a convertible financial instrument in the equity position risk calculation, they should –
   a) treat the convertible financial instrument as a notional position in the equity into which they convert; and
   b) adjust their equity position risk by making –
      i. an addition equal to the current value of any loss which the Banks would make if they did convert to equity; or
      ii. a deduction equal to the current value of any profit which the Banks would make if they did convert to equity (subject to a maximum reduction equal to the equity position risk on the notional position underlying the convertible financial instrument).

B.4.3 Futures Contracts, Forwards and Contract for Differences ("CFD")[56] On A Single Equity

391. Banks should treat a futures contract, forward or CFD on a single equity as a notional position in that equity.

B.4.4 Futures Contracts, Forwards and CFDs On Equity Indices or Baskets

392. Banks should treat a futures contract, forward or CFD on an equity index or basket as either –
   a) a notional position in each of the underlying equities with a value reflecting that equity's contribution to the total market value of the equities in the index or basket; or
   b) if there is –
      i. one country in the index or basket, a notional position in the index or basket with a value equal to the total market value of the equities in the index or basket; or
      ii. more than one country in the index or basket –
         - several notional basket positions, one for each country basket with a value reflecting that country's contribution to the total market value of the equities in the index or basket; or
         - one notional basket position in a separate, hypothetical country with a value equal to the total market value of the equities in the index or basket.

[56] Any interest rate risk arising from a futures contract, forward or contract for difference should be reported as set out in Section A.

B.4.5 Equity Swaps

393. Banks should treat an equity swap where they are receiving an amount based on the change in value of a single equity or equity index and paying an amount based on the change in value of another equity or equity index as a notional long position in the former and a notional short position in the latter[57].

B.4.6 Equity Options and Stock Index Options

394. Equity options and stock index options are either "carved out" together with the associated underlying instruments, in instances where the Bank also holds a position in the underlying, or are incorporated in the general market risk measurement framework based on the delta-plus method. The calculation of the appropriate capital charge for equity options and stock index options are set forth in Chapter VI, Section E - Options Risk.

395. The table below summarises the of treatment of equity derivatives:

TABLE 14– TREATMENT OF EQUITY DERIVATIVES

	Instrument	Specific risk charge*	General market risk charge
Exchange-traded or OTC futures	- Individual equity	Yes	Yes, as underlying
	- Index	Yes	Yes, as underlying
Options	- Individual equity	Yes	Either (a) or (b) as below : (a) Carve out together with the associated hedging positions, and use: - simplified approach
	- Index	Yes	(b) General market risk charge according to the delta-plus method.

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

B.5 Positions In Well Diversified Equity Indices

396. Positions in well-diversified indices whether they arise directly or through derivatives attract a risk charge of 2% (specific risk) in addition to the general market risk, to cover factors such as execution risk.

[57] The exposure should be slotted into the appropriate re-pricing time-band for interest rate risk, if one of the legs involves receiving/paying a fixed or floating interest rate risk.

397. For positions in equity indices not regarded as well-diversified, the specific risk capital charge is the highest specific risk charge that would apply to any of its components.

B.6 Treatment of Arbitrage Strategies

398. In the case of the futures-related arbitrage strategies set forth below, the specific risk capital charge described above may be applied to only one index with the opposite position exempt from a specific risk capital charge. The strategies are as follows;
   a) where Banks take an opposite position in exactly the same index, at different dates or in different market centres;
   b) where Banks take opposite positions in contracts at the same date in different but similar indices subject to supervisory oversight that the two indices contain sufficient common components to justify offsetting.

399. Where Banks engage in a deliberate arbitrage strategy, in which a futures contract on a broad-based index matches a basket of stocks, it will be allowed to carve out both positions from the standardised methodology on the following conditions:
   a) the trade has been deliberately entered into, and separately controlled; and
   b) the composition of the basket of stocks represents at least 90% of the index when broken down into its notional components.

400. In such a case, the minimum risk requirement is limited to 4% (i.e. 2% of the gross value of the positions on each side) to reflect divergence and execution risks. This applies even if all of the stocks comprising the index are held in identical proportions. Any excess value of the stocks comprising the basket over the value of the futures contract or excess value of the futures contract over the value of the basket is to be treated as an open long or short position.

401. Where Banks take positions in depository receipts against opposite positions in the underlying equity or identical equities in different market, they may off-set the position (i.e. bear no capital charge) but only on condition that any costs on conversion are fully taken into account[58].

[58] Any foreign exchange risk arising out of these positions has to be appropriately reported to determine the foreign exchange risk capital charge.

C. FOREIGN EXCHANGE RISK

402. This section sets out the minimum capital standard under the standardised approach to cover the risk of position in foreign currencies, including gold.

403. Banks which hold net open positions (whether long or short) in foreign currencies are exposed to the risk that exchange rates may move against it. The open positions may be either trading positions or, simply, exposures caused by the Banks' overall assets and liabilities. Therefore, the foreign exchange risk capital charge applies to the entire business of the Bank i.e. the trading book and the banking book combined.

C.1 De Minimis Exemptions

404. Banks doing negligible business in foreign currencies and which do not take foreign exchange positions for its own account may be exempted from calculating the capital requirements on these positions. The following criteria will be used in deciding to grant exemption to Banks:
   a) Banks holding or taking of positions in foreign currencies, including gold, defined as the greater of the sum of the gross long positions and the sum of the gross short positions in all foreign currencies and gold, does not exceed 100% of its eligible capital; and
   b) Banks overall net open position, do not exceed 2% of their eligible capital.

C.2 Measurement of Exposure in a Single Currency

405. The measurement of the foreign exchange risk involves two processes, the first process is the calculation of the net open position in each individual currency including gold and, the second step is the measurement of the risks inherent in Banks mix of long and short positions in different currencies.

406. Banks exposure to foreign exchange risk in any currency is their net open position in that currency, which is calculated by summing the following items:
   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 net amounts 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 irrevocable;
   d) Net future income/expenses not yet accrued but already hedged by forward foreign exchange contracts may be included provided that such anticipatory hedging is part of the Bank's formal written policy and the items are included on a consistent basis
   e) Profits i.e. the net value of income and expense accounts held in the currency in question;
   f) The net delta-based equivalent of the total book of foreign currency options where the Bank is using the delta-plus method to calculate its market risk capital requirement for options.

C.3 Treatment of Composite Currencies

407. Net positions in composite currencies, such as the Special Drawing Rights, may either be broken down into the component currencies according to the quotas in force and included in the net open position calculations for the individual currencies, or treated as a separate currency. In any case, the mechanism for treating composite currencies should be consistently applied.

C.4 Treatment of Interest, Other Income and Expenses

408. Interest accrued (earned but not yet received) should be included as a position. Accrued expenses should also be included. Unearned but expected future interest and anticipated expenses may be excluded unless the amounts are certain and Banks have taken the opportunity to hedge them. If Banks include future income/expenses they should do so on a consistent basis, and not be permitted to select only those expected future flows which reduce their position.

C.5 The Measurement of Forward Currency and Gold Positions

409. 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, Banks which base their normal management accounting on net present values are expected to use the net present values of each position, discounted using current interest rates and valued at current spot rates, for measuring their forward currency and gold positions.

C.6 The Treatment of Structural Positions

410. Positions of a structural, i.e. non-dealing, nature as set forth below, may be excluded from the calculation of the net open currency positions:
   a) positions are taken deliberately in order to hedge, partially or totally, against the adverse effects of exchange rate movements on Banks' capital adequacy ratio;
   b) positions related to items that are deducted from Banks' capital when calculating its capital base in accordance with the rules and guidelines in this module, such as investments in non-consolidated subsidiaries; and
   c) retained profits held for payout to parent.

411. The Authority will consider approving the exclusion of the above positions for the purpose of calculating the capital requirement, only if the following conditions are met:
   a) the concerned Banks provide adequate documentary evidence to the Authority which establishes the fact that the positions proposed to be excluded are, indeed, of a structural, i.e. non-dealing, nature and are merely intended to protect Banks' capital adequacy ratio. For this purpose, the Authority may ask for written representations from Banks' management or directors; and
   b) any exclusion of a position is applied consistently, with the treatment of the hedge remaining the same for the life of the associated assets or other items.

C.7 Capital Requirement

412. The Foreign Exchange risk capital requirement is calculated by taking the net long or short position in each currency and convert at the spot rate into the reporting currency. The overall net open position is measured by aggregating the following:
   a) the sum of the net short positions or the sum of the net long positions, whichever is greater; plus
   b) the net position (short or long) in gold, regardless of sign.

413. The capital charge is 8% of the overall net open position.

D. COMMODITY RISK

414. This section sets out the minimum capital requirements to cover the risk of holding or taking positions in commodities, including precious metals, but excluding gold, which is dealt with in **Chapter VI, Section C - Foreign Exchange Risk**. Commodities are defined as a physical product which is traded on a secondary market, e.g. agricultural products, minerals (including oil) and precious metals.

415. The commodities position risk and the capital charges are calculated with reference to the entire business of a Bank, i.e., the banking and trading books combined.

416. The price risk in commodities is often more complex and volatile than that associated with currencies and interest rates. Commodity markets may also be less liquid than those for interest rates and currencies and, as a result, changes in supply and demand can have a more dramatic effect on price and volatility. Banks need also to guard against the risk that arises when a short position falls due before the long position. Owing to a shortage of liquidity in some markets, it might be difficult to close the short position and Banks might be "squeezed by the market". All these market characteristics, of commodities, can make price transparency and the effective hedging of risks more difficult.

417. For spot or physical trading, the directional risk arising from a change in the spot price is the most important risk. However, Banks applying portfolio strategies involving forward and derivative contracts are exposed to a variety of additional risks, which may well be larger than the risk of a change in spot prices (directional risk). These include:

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

418. The Authority will allow Banks to adopt either the maturity ladder approach or the simplified approach to calculate their commodities risk and the resultant capital charges.

D.1 Allowable Netting of Matched Positions

419. Each commodity position (spot plus forward) must be expressed in terms of the standard unit of measurement (i.e., barrels, kilograms, grams etc.). Long and short positions in a commodity are reported on a net basis for the purpose of calculating the net open position in that commodity. For markets which have daily delivery dates, any contracts maturing within ten days of one another may be offset. The net position in each commodity is then converted, at spot rates, into Banks' reporting currency.

420. Positions in different commodities cannot be offset for the purpose of calculating the open positions. However, where two or more sub-categories of the same category are, in effect, deliverable against each other, netting between those sub-categories is permitted. Furthermore, if two or more subcategories of the same category are considered as close substitutes for each other, and minimum correlation of 0.9 between their price movements

is clearly established over a minimum period of one year, Banks may, with the prior written approval of the Authority, net positions in those sub-categories. Banks that wish to net positions based on correlations, in the manner discussed above, will need to satisfy the Authority of the accuracy of the method which it proposes to adopt.

D.2 Derivatives

421. All commodity derivatives and off-balance-sheet positions which are affected by changes in commodity prices should be included in the measurement framework for commodities risks. This includes commodity futures, commodity swaps, and options where the "delta plus" method is used.

422. In order to calculate the risks, commodity derivatives should be converted into notional commodities positions and assigned to maturities according to paragraphs 423 to 426:

D.2.1 Futures Contract, Forwards and Contract for Differences ("CFDs") On a Single Commodity[59]

423. Banks should treat a forward, futures contract or CFD on a single commodity which settles according to the difference between the price set on the trade date and that prevailing at the maturity date of the contract, as a notional position equal to the total quantity of the commodity underlying the contract that has a maturity equal to the expiry date of the contract.

D.2.2 Commitment to Buy or Sell a Single Commodity at an Average of Spot Prices Prevailing In The Future

424. Banks should treat a commitment to buy (sell) at the average spot price of a single commodity prevailing over some period between trade date and maturity date as a combination of –
   a) a long (short) position equal to the total quantity of the commodity underlying the contract with a maturity equal to the maturity date of the contract; and
   b) a series of short (long) notional positions, one for each of the reference dates where the contract price remains unfixed, each of which is a fractional share of the total quantity of the commodity underlying the contract and has a maturity equal to the relevant reference date.

D.2.3 Futures Contract and CFDs on a Commodity Index

425. Banks should treat a futures contract or CFD on a commodity index which settles according to the difference between the price set on trade date and that prevailing at the maturity date of the contract as either –
   a) a single notional commodity position (separate from all other commodities) equal to the total quantity of the commodities underlying the contract that has a maturity equal to the maturity date of the contract; or

[59] Where a commodity is part of a futures contract, forward or CFD, any interest rate or foreign exchange risk from the other leg of the contract shall be reported as set out in Chapter VI, Sections A and C respectively.

b) a series of notional positions, one for each of the constituent commodities in the index, each of which is a proportionate part of the total quantity of the commodities underlying the contract according to the weighting of the relevant commodity in the index and has a maturity equal to the expiry date of the contract.

D.2.4 Commodity Swaps

426. Banks should treat a commodity swap[60] as a series of notional positions, one for each payment under the swap, each of which equals the total quantity of the commodity underlying the contract, has a maturity equal to the payment date and is long or short as follows:

	Receiving amounts which are unrelated to any *commodity's* price	Receiving the price of *commodity* 'b'
Paying amounts which are unrelated to any *commodity's* price	N/A	Long *positions* in *commodity* 'b'
Paying the price of *commodity* 'a'	Short *positions* in *commodity* 'a'	Short *positions* in *commodity* 'a' and long *positions* in *commodity* 'b'

D.3 Maturity Ladder Approach

427. The steps for calculating the commodities risk using the maturity ladder approach are:

a) The net positions in individual commodities, expressed in terms of the standard unit of measurement, are first slotted into the maturity ladder. Physical stocks are allocated to the first time-band. A separate maturity ladder is used for each commodity and the net positions in each commodity are then converted at current spot rates into the national currency.

b) Long and short positions in each time-band are matched. The sum of the matched long and short positions is multiplied first by the spot price of the commodity, and then by a spread rate of 1.5% for each time-band as set forth in the table below. This represents the capital charge in order to capture forward gap and interest rate risk within a time-band (which, together, are sometimes referred to as curvature/spread risk).

Time-bands
0 – 1 months
1 – 3 months
3 – 6 months
6 – 12 months
1 – 2 years
2 – 3 years
over 3 years

[60] Where one of the legs involves receiving/paying a fixed or floating interest rate, that exposure shall be slotted into the appropriate re-pricing time-band for interest rate risk as set out in Chapter VI, Section A.

c) The residual (unmatched) net positions from nearer time-bands are then carried forward to offset opposite positions (i.e. long against short, and vice versa) in time-bands that are further out. However, a surcharge of 0.6% of the net position carried forward is added in respect of each time-band that the net position is carried forward, to recognise that such hedging of positions between different time bands is imprecise. The surcharge is in addition to the capital charge for each matched amount created by carrying net positions forward, and is calculated as explained in step (b) above.

d) At the end of step (c) above, there will be either only long or only short positions, to which a capital charge of 15% will apply.

D.4 Simplified Approach

428. For the Simplified Approach, the capital charge of 15% of the net position, long or short, in each commodity is applied to capture directional risk.

429. An additional capital charge equivalent to 3% of Banks gross positions, long plus short, in each commodity is applied to protect Banks against basis risk, interest rate risk and forward gap risk. In valuing the gross positions in commodity derivatives for this purpose, Banks must use the current spot price.

E. OPTIONS RISK

430. This section sets out the minimum capital requirements to cover the risk of holding or taking positions in commodities

431. It is recognised that the measurement of the price risk of options is inherently a difficult task, which is further complicated by the wide diversity of Banks' activities in options. The following options should be adopted to the measurement of options risks:
   a) Banks which solely use purchased options are permitted to use the simplified (carve-out) approach described later in this chapter.
   b) Banks which also write options should use the delta-plus (buffer) approach.

432. Where written option positions are hedged by perfectly matched long positions in exactly the same options, no capital charge for market risk is required in respect of those matched positions.

E.1 Simplified Approach (Carve-Out)

433. In the simplified approach, positions for the options and any positions in the associated underlying are entirely omitted from the calculation of capital charges by the standardised methodology and are, instead, "carved out" and subject to separately calculated capital charges that incorporate both general market risk and specific risk. The capital charges thus generated are then added to the capital charges for the relevant risk category, i.e., interest rate related instruments, equities, foreign exchange and commodities as described in **Section A - Interest Rate Risk**, **Section B - Equity Risk**, **Section Foreign C - Exchange Risk** and **Section D - Commodity Risk** respectively.

434. The capital charges for the carved out positions are as set forth in the table below. As an example of how the calculation would work, if a Bank holds 100 shares currently valued at $ 10 each, and also holds an equivalent put option with a strike price of $ 11, the capital charge would be as follows:

[$ 1,000 x 16%] - [($ 11 - $ 10) x 100] = $ 60

435. A similar methodology applies to options whose underlying is a foreign currency, an interest rate related instrument or a commodity.

Position	Treatment
Long cash and long put or Short cash and long call (i.e., hedged positions)	The capital charge is: [Market value of underlying instrument[61] x Sum of specific and general market risk charges[62] for the underlying] *minus* [Amount, if any, the option is in the money[63]]

[61] In some cases such as foreign exchange, it may be unclear which side is the "underlying instrument"; this should be taken to be the asset which would be received if the option were exercised. In addition, the nominal value should be used for items where the market value of the underlying instrument could be zero, e.g., caps and floors, swap options etc.

[62] Some options (e.g., where the underlying is an interest rate, a currency or a commodity) bear no specific risk, but specific risk is present in the case of options on certain interest rate related instruments (e.g., options on a corporate debt

Position	Treatment
	The capital charge calculated as above is bounded at zero, i.e., it cannot be a negative number.
Long call or Long put (i.e., naked option positions)	The capital charge is the lesser of: i) Market value of the underlying instrument x Sum of specific and general market risk charges for the underlying; and ii) Market value of the option[64].

E.2 Delta-Plus Method (Buffer Approach)

436. Banks which write options are allowed to include delta-weighted option positions within the standardised methodology set forth in **Section A - Interest Rate Risk, Section B - Equity Risk, Section Foreign C - Exchange Risk** and **Section D - Commodity Risk** respectively. Each option should be reported as a position equal to the market value of the underlying multiplied by the delta.

437. Since delta does not sufficiently cover the risks associated with options positions, there will be additional capital buffers to cover gamma (which measures the rate of change of delta) and Vega (which measures the sensitivity of the value of an option with respect to a change in volatility), in order to calculate the total capital charge. The gamma and Vega buffers should be calculated by an adequate exchange model or Banks proprietary options pricing model, with appropriate documentation of the process and controls, to enable the Authority to review such models, if considered necessary.

E.2.1 Underlying - Debt Security or an Interest Rate

438. The delta-weighted option positions are slotted into the interest rate time-bands as set forth in **Chapter VI, Section A - Interest Rate Risk.** A two-legged approach should be used as for other derivatives requiring one entry at the time the underlying contract takes effect and a second at the time the underlying contract matures. For example:

a) A bought call option on a June three-month interest rate future will, in April, be considered, on the basis of its delta-equivalent value, to be a long position with a maturity of five months and a short position with a maturity of two months

b) A written option with the same underlying as in (a) above, will be included in the measurement framework as a long position with a maturity of two months and a short position with a maturity of five months.

c) A two months call option on a bond future where delivery of the bond takes place in September will be considered in April, as being long the bond and short a five months deposit, both positions being delta-weighted.

security or a corporate bond index), and in the case of options on equities and stock indices. The risk weighting for currency options is 1.0 and for options on commodities is 1.875

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

[64] Where the position does not fall within the trading book options on certain foreign exchange and commodities positions not belonging to the trading book), it is acceptable to use the book value instead of the market value.

439. Floating rate instruments with caps or floors are treated as a combination of floating rate securities and a series of European-style options. For example, the holder of a three-year floating rate bond indexed to six month LIBOR with a cap of 10% will treat it as:
   a) a debt security that reprices in six months; and
   b) a series of five written call options on an FRA with a reference rate of 10%, each with a negative sign at the time the underlying FRA takes effect and a positive sign at the time the underlying FRA matures.

E.2.2 Underlying - Equity Instrument

440. The delta-weighted positions are incorporated in the measure of market risk described in **Chapter VI, Section B - Equity Risk.** For purposes of this calculation, each national market is treated as a separate underlying.

E.2.3 Options on Foreign Exchange and Gold Positions

441. The net delta-based equivalent of the foreign currency and gold options are incorporated in the measurement of the exposure for the respective currency or gold position, as described in **Chapter VI, Section C - Foreign Exchange Risk.**

E.2.4 Options on Commodities

442. The delta-weighted positions are incorporated in the measurement of the commodities risk by the simplified approach or the maturity ladder approach, as described in **Chapter VI, Section D - Commodity Risk.**

E.2.5 Calculation of the Gamma and Vega Buffers

443. In addition to the above capital charges to cover delta risk, Banks are required to calculate additional capital charges to cover the gamma and Vega risks. The additional capital charges are calculated as follows:

Gamma

a) For each individual option position (including hedge positions), a gamma impact is calculated according to the following formula derived from the Taylor series expansion:

$$\text{Gamma impact} = 0.5 \times \text{Gamma} \times VU^2$$

where VU	**=**	variation of the underlying of the option, calculated as in (b) below

b) VU is calculated as follows:
   i. For interest rate options, where the underlying is a bond, the market value of the underlying is multiplied by the risk weights set forth in **Chapter VI, Section A.4.1- Maturity Method**. An equivalent calculation is carried out where the underlying is an interest rate, based on the assumed changes in yield as set forth in the table in **Chapter VI, Section A.4.2 - Duration Method;**
   ii. For options on equities and equity indices, the market value of the underlying is multiplied by 8%;

iii. For foreign exchange and gold options, the market value of the underlying is multiplied by 8%;
iv. For commodities options, the market value of the underlying is multiplied by 15%.

c) For the purpose of the calculation of the gamma buffer, the following positions are treated as the same underlying:
   i. For interest rates, each time-band as set forth in the table in **Chapter VI, Section A.4.1 - Maturity Method**. Positions should be slotted into separate maturity ladders by currency. Banks using the duration method should use the time-bands as set forth in the table in **Chapter VI, Section A.4.2 - Duration Method;**
   ii. For equities and stock indices, each individual national market;
   iii. For foreign currencies and gold, each currency pair and gold; and
   iv. For commodities, each individual commodity as defined in **Chapter VI, Section D Commodity Risk**.

d) Each option on the same national markets will have a gamma impact that is either positive or negative. These individual gamma impacts are summed, resulting in a net gamma impact for each national market that is either positive or negative. Only those net gamma impacts that are negative are included in the capital calculation.

e) The total gamma capital charge is the sum of the absolute value of the net negative gamma impacts calculated for the national market as explained in (d) above.

Vega

f) For volatility risk (Vega), Banks are required to calculate the capital charges by multiplying the sum of the Vegas for all options on the same market, as defined above, by a proportional shift in volatility of ±25%.

g) The total Vega capital charge is the sum of the absolute value of the individual Vega capital charges calculated for each underlying.

444. The capital charges for delta, gamma and Vega risks are in addition to the specific risk capital charges which are determined separately by multiplying the delta-equivalent of each option position by the specific risk weights set forth in **Section A - Interest Rate Risk, Section B - Equity Risk, Section Foreign C - Exchange Risk** and **Section D - Commodity Risk** respectively.

445. To summarise, (position) capital requirements for, say OTC options, applying the delta-plus method equals:

Specific risk capital charges + Delta risk capital charges + Gamma and Vega capital charges

E.3 Scenario Approach

446. The scenario matrix analysis involves specifying a fixed range of changes in the option portfolio's risk factors and calculating changes in the value of the option portfolio at various points along this "grid" or "matrix". For the purpose of calculating the capital charge, Banks

will revalue the option portfolio using matrices for simultaneous changes in the option's underlying rate or price and in the volatility of that rate or price. A different matrix is set up for each individual underlying.

447. As an alternative, in respect of interest rate options, Banks which are significant traders in such options are permitted to base the calculation on a minimum of six sets of time- bands. When applying this alternative method, not more than three of the time-bands as defined in **Table 8- Maturity method: time-bands and risk weights** and **Table 10 - Duration method: time-bands and risk weights** should be combined into any one set.

448. The options and related hedging positions will be evaluated over a specified range above and below the current value of the underlying.
   a) The range for interest rates is consistent with the assumed changes in yield set forth in **Chapter VI, Section A - Interest Rate Risk**. Those Banks applying the alternative method of grouping time-bands into sets, as explained in paragraph 447 should use, for each set of time-bands, the highest of the assumed changes in yield applicable to the individual time-bands in that group. If, for example, the time-bands 3 to 4 years, 4 to 5 years and 5 to 7 years are combined, the highest assumed change in yield of these three bands would be 0.75 which would be applicable to that set.
   b) For equity instruments, the range is ±8%.
   c) For foreign exchange and gold, the range is ±8%.
   d) For commodities, the range is ±15%,

449. The second dimension of the matrix entails a change in the volatility of the underlying rate or price. A single change in the volatility of the underlying rate or price equal to a shift in volatility of ±25% is applied.

450. After calculating the matrix, each cell contains the net profit or loss of the option and the underlying hedge instrument. The general market risk capital charge for each underlying is then calculated as the largest loss contained in the matrix. The specific risk capital charge is determined separately by multiplying the delta equivalent of each option position by the specific risk weights set forth in **Section A - Interest Rate Risk, Section B - Equity Risk, Section Foreign C - Exchange Risk** and **Section D - Commodity Risk** respectively.

451. To summarise, position risk capital requirements for, say OTC options, applying the scenario approach are as follows:
   a) Specific risk capital charges (calculated as explained in paragraph 450 Plus
   b) Directional and volatility risk capital charges (i.e., the worst case loss from a given scenario matrix analysis).

CHAPTER VII DETERMINATION OF THE TRADING BOOK

INTRODUCTION

452. A Bank's trading book consists of all positions in financial instruments and commodities held either with trading intent or in order to hedge other elements of the trading book.

453. 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.

454. The term position includes proprietary positions and positions arising from client servicing[65] (e.g. matched principal broking[66]) and market making.

455. Term trading-related report style transactions that Banks account for in its banking book may be included in the Bank's trading book for regulatory capital purposes so long as all such repo-style transactions are included. For this purpose, trading-related report-style transactions are defined as only those that meet the requirements defined in the trading book definition and trading book policy statement section 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.

456. A financial instrument is any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity. Financial instruments include both primary financial instruments (cash instruments) and derivative financial instruments. A financial asset is any asset that is cash, the right to receive cash or another financial asset; or the contractual right to exchange financial assets on potentially favourable terms, or an equity instrument. A financial liability is the contractual obligation to deliver cash or another financial asset or to exchange financial liabilities under conditions that are potentially unfavourable.

457. A financial instrument that is held with the only purpose to provide liquidity to the Bank must be excluded from the trading book if it is not held with trading intent.

458. Open equity stakes in hedge funds, private equity investments, positions in a securitisation warehouse and real estate holdings should be excluded from the trading book, owing to significant constraints on the ability of banks to liquidate these positions and value them reliably on a daily basis.

[65] This applies even if the nature of the business means that only risks deemed to be incurred by a bank or affiliate are counterparty risks. As a consequence no market risk charges applies.

[66] The matched principal broking is generated when a bank acts as a principal agent in matched transactions in financial instruments, commodities or commodities derivatives. A bank offers this service in order to provide to their clients access to auction markets (e.g. stock exchanges). As a consequence, a bank takes positions on the financial instruments.

A. TRADING BOOK DETERMINATION

A.1 Trading Intent

459. Positions held with trading intent are those held intentionally for short-term resale and/or with the intention of benefiting from actual or expected short-term price movements or to lock in arbitrage profits.

460. Trading intent must be evidenced on the basis of the strategies policies and procedures established by Banks to manage the position or portfolio in accordance with paragraph 466.

461. Positions/portfolios held with trading intent must comply with the following requirements to receive trading book capital treatment: **C**

a) Clearly documented trading strategy for the position/instrument or portfolios, approved by senior management that must include the expected holding horizon;

b) Clearly defined policies and procedures for the active management of the position that must include the following:

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 approved strategy;

iv) positions are marked to market at least daily and when marking to model the parameters must be assessed on a daily basis

v) positions are reported to senior management as an integral part of the Bank's risk management process; and

vi) positions are actively monitored with reference to market information sources and an assessment made of the marketability or hedge-ability of the position or its component risks, including the assessment of the quality and availability of market inputs to the valuation process, level of market turnover and sizes of positions traded in the market.

c) Clearly defined policies and procedures to monitor the position against Banks' trading strategies including the monitoring of turnover of positions in the trading books and stale positions included in the Banks' trading books.

A.2 Internal Hedges

462. An internal hedge is a position that materially or completely offsets the component risk element of a banking book position or a set of positions.

463. Positions arising from internal hedges are eligible for trading book capital treatment; provided that they are held with trading intent and that the general criteria on trading intent (paragraph 459) and prudent valuation (**Systems, Controls and Prudent Valuation**) are complied with. In particular: **C**

a) the internal hedge must not be primarily intended to avoid or reduce regulatory capital requirements;

b) the internal hedge must be properly documented and subject to particular internal approval and audit procedures;
c) the internal hedge must be dealt with at the market rate for such a deal given prevailing market conditions;
d) the bulk of the market risk that is generated by the internal hedge must be dynamically managed in the trading book within authorised limits set by management; and
e) the internal hedge must be carefully monitored.

464. Banks must ensure that internal hedges are monitored using adequate procedures, and the treatment applies without prejudice to the capital requirements applicable to the "banking book leg" of the internal hedge.

465. Notwithstanding paragraphs 463 and 464 above, when a Bank hedges a banking book credit risk exposure using a credit derivative booked in its trading book (using an internal hedge), the banking book exposure is not deemed to be hedged for the purposes of calculating capital requirements unless the Bank purchases from an eligible third party protection provider a credit derivative meeting the requirements with regard to the banking book exposure. Where such third party protection is purchased and is recognised as a hedge of a banking book exposure for the purposes of calculating capital requirements in the banking book, neither the internal nor external credit derivative hedge may be included in the trading book for the purposes of calculating capital requirements.

A.3 Trading Book Policy Statement

466. Banks must have a trading book policy statement that covers the policies and procedures, including methodologies, by which the Bank:
a) defines its trading book and identifies positions to be included in or excluded from the trading book
b) allocates positions between the banking book and trading book;
c) actively manages and values its positions in the trading book;
d) measures its trading book risks; and
e) controls transfer of positions between the banking book and the trading book.

467. The trading book policy statement should, at the minimum address the following:
a) the activities the Bank considers to be trading and as constituting part of the trading book for capital requirement purposes, including:
b) the financial instruments and commodities that the Bank proposes to trade in, including the currencies, maturities, issuers and quality of issues; and
c) any instruments to be excluded from its trading book.
d) the extent to which a position can be marked-to-market daily by reference to an active, liquid two-way market;
e) for positions that are marked-to-model, the extent to which the Bank can:
    i. identify all material risks of the position;
    ii. hedge all material risks of the position with instruments for which an active, liquid two-way market exists; and

iii. derive reliable estimates for the key assumptions and parameters used in the model;

f) the extent to which the Bank can, and is required to, generate valuations for the position that can be validated externally in a consistent manner;
g) the extent to which legal restrictions or other operational requirements would impede the Bank's ability to effect a liquidation or hedge of the position in the short term;
h) the extent to which the Bank can, and is required to, actively risk manage the position; and
i) the extent to which the Bank may transfer risk or positions between the banking book and trading book and the criteria for such transfers.

468. The trading book policy statements should provide investments goals for the Bank's trading book. In addition, the statements should describe the strategies that the Bank's trading desk should employ to meet these objectives. At least, specific information about asset allocation, risk tolerance, active management of the positions, risk management techniques, valuation methodologies and the methodologies used to control transfers of positions between the banking and the trading book need to be specified in the policy statements.

CHAPTER VIII SYSTEMS, CONTROLS AND PRUDENT VALUATION

INTRODUCTION

469. This section sets forth guidance on prudent valuation for positions that are accounted for at fair value, both in the trading book and banking book. This guidance is especially important for positions without actual market prices or observable inputs to valuation, as well as less liquid positions which raise concerns on prudent valuation. The valuation guidance is not intended to require Banks to change valuation procedures for financial reporting purposes.

470. A Bank's framework for prudent valuation should at a minimum include systems and controls, valuation methodologies, and a process for valuation adjustments.

A. SYSTEMS, CONTROLS AND PRUDENT VALUATION

A.1 Systems and controls

471. A Bank must implement policies and procedures for the measurement and management of all material sources and effects of market risk.

472. A Bank must establish and maintain systems and controls sufficient to provide prudent and reliable valuation estimates. These systems must be integrated with other risk management systems within the organisation (e.g. credit analysis). These systems must include:

a) Documented policies and procedures for the process of valuation (including clearly defined responsibilities of the various areas involved in the determination of the valuation, sources of market information and review of their appropriateness, guidelines for the use of unobservable inputs reflecting the Bank's assumptions of what market participants would use in pricing the position, frequency of independent valuation, timing of closing prices, procedures for adjusting valuations, month end and ad-hoc verification procedures); and

b) Reporting lines for the department accountable for the valuation process that are clear and independent of the front office. The reporting line in relation to these matters must ultimately be to the Bank's Board of Directors.

A.2 Valuation Methodologies

A.2.1 Marking to Market

473. Marking to market is the daily valuation of positions at readily available close out prices that are sourced independently. Examples of readily available close out prices include exchanges prices, screen prices, or quotes obtained from a recognised stock exchange, a recognised price provider or an independent reputable broker.

474. As much as possible, a Bank must mark to market its trading book positions on a regular and consistent basis. The more prudent side of bid/offer should be used unless the Bank is a significant market maker in a particular position type and has the ability to close out at mid-market. Banks should maximise the use of relevant observable inputs and minimise the use of unobservable inputs when estimating fair value using a valuation technique. However,

observable inputs may not be relevant such as in a forced liquidation or distressed sale or transactions may not be observable, such as when markets are inactive. In such cases, the observable data should be considered, but may not be determinative.

A.2.2 Marking to Model

475. Only where marking to market is not possible should Banks mark to model, but this must be demonstrated to be prudent and reflect the economic substance of the transactions, using market-determined inputs or parameters, wherever possible.

476. Marking to model is defined as any valuation of a financial instrument or portfolio based on internal assumptions or financial models that has to be benchmarked, extrapolated or otherwise calculated from a market input. When marking to model, a Bank should be cognisant of the limitations of the model and an extra degree of conservatism is appropriate.

477. A Bank should meet the following when implementing its mark to model valuation framework:

a) Financial instruments should be valued at least daily based on marking to model methodologies.
b) Senior management should be aware of the elements of the trading book or of other fair-valued positions that are subject to mark to model and should understand the materiality of the uncertainty this creates in the reporting of the risk/performance of the business.
c) Market inputs should be sourced, to the extent possible, in line with market prices. The appropriateness of the market inputs for the particular financial instrument being valued should be reviewed regularly.
d) Where available, generally accepted valuation methodologies for particular products should be used as far as possible.
e) Where the model is developed by the Bank itself, it should be based on appropriate assumptions that have been assessed and challenged by suitably qualified parties independent of the development process. The model should be developed or approved independently of the trading desk.
f) The models used should be independently tested. This includes validating the mathematics, the assumptions and the software implementation. There should be formal change control procedures in place and a secure copy of the model should be held and periodically used to check valuations.
g) The unit or department responsible for risk management should be aware of the weaknesses of the models used. The unit or department responsible for pricing should reflect these weaknesses in the valuation output.
h) The model should be subject to periodic review to determine the accuracy of its performance (e.g. assessing continued appropriateness of the assumptions, analysis or profit and losses versus risk factors, comparison of actual close out values to model outputs).
i) Valuation adjustments should be made as appropriate (see valuation adjustments section below).

A.3 Independent price verification

478. Banks should perform independent price verification in addition to daily marking to market or marking to model. This is the process by which market prices or model inputs are regularly verified for accuracy and independence. While daily marking to market may be performed by dealers, verification of market prices and model inputs should be performed by a unit independent of the dealing room, at least monthly (or, depending on the nature of the market/trading activity, more frequently). Where independent pricing sources are not available or pricing sources are more subjective, e.g. only one available broker quote, prudent measures such as valuation adjustments may be appropriate.

A.4 Valuation adjustments

479. As part of the procedures for marking to market, Banks must establish and maintain procedures for considering valuation adjustments, for the purpose of calculating its market capital requirements.

480. The Authority expects a Bank using third-party valuations and or marking to model valuations to consider whether valuation adjustments are necessary.

481. The minimum conditions that should be evaluated when financial institutions perform its valuation adjustments analysis include: unearned credit spreads, close-out costs, operational risk, early termination, investing and funding costs, future administrative costs and model risk.

A.5 Adjustment to Current Valuation of Less Liquid Positions for Regulatory Capital

482. Banks must establish and maintain procedures for calculating an adjustment to the current valuation of less liquid positions. This adjustment would be in addition to any changes to the value of the position for financial reporting and should be designed to reflect the illiquidity of the position

483. Banks must consider the need for an adjustment to a position's valuation to reflect current illiquidity whether the position is marked to market using market prices or observable inputs, third party valuations or marked to model.

484. Banks must consider that the assumptions made about liquidity in the market risk capital charge might not be consistent with the Bank's ability to sell or hedge out less liquid positions. Therefore, where appropriate, Banks must take an adjustment to the current valuation of these positions, and review their continued appropriateness on an ongoing basis.

485. Reduced liquidity may have arisen from market events, concentrated positions and stale positions. Additionally, close-out prices for concentrated positions and/or stale positions should be considered in the adjustment.

486. Banks must consider all relevant factors when determining the appropriateness of the adjustment for less liquid positions.

487. These factors may include, but are not limited to, the amount of time it would take to hedge out the positions/risks within the position, the average volatility of bid/offer spreads, the availability of independent market quotes (number and identity of market makers), the average and volatility of trading volumes (including trading volumes during periods of market stress), market concentrations, the aging of the positions, the extent to which valuations relies on marking to model, and the impact of other model risks.

488. For complex products including but not limited to, securitisation exposures and nth to default credit derivatives, Banks must explicitly assess the need for valuation adjustments to reflect two forms of model risk: the model risk associated with using a possibly incorrect valuation methodology; and the risk associated with using unobservable (and possibly incorrect) calibration parameters in the valuation model.

489. The adjustment to the current valuation of less liquid position must impact regulatory capital and may exceed those valuation adjustments made under financial reporting standards and paragraphs 480 and 481 above.

ANNEXES

ANNEX 1- EXTERNAL CREDIT ASSESSMENT INSTITUTION

The recognition process

1. The Authority is responsible, for determining whether an external credit assessment institution (ECAI) meets the eligibility criteria listed below. The assessments of ECAIs may be recognised on a limited basis, e.g. by type of claims or by jurisdiction.

Eligibility criteria

2. An ECAI must satisfy each of the following six criteria:

Objectivity

3. 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 recognised by supervisors, an assessment methodology for each market segment, including rigorous back testing, must have been established for at least one year and preferably three years.

Independence

4. 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 shareholder structure of the assessment institution may be seen as creating a conflict of interest.

International access/Transparency

5. The individual assessments 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.

Disclosure

6. 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.

Resources

7. 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.

Credibility

8. To some extent, credibility is derived from the criteria above. In addition, the reliance on an ECAI's 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.

The mapping process

9. The Authority will be responsible for assigning eligible ECAIs' assessments to the risk weights available under the standardised risk weighting framework, i.e. deciding which assessment categories correspond to which risk weights. The mapping process would be objective and result in a risk weight assignment consistent with that of the level of credit risk reflected in the tables within the individual claims section of this document. The risk weights will cover the full spectrum of risk weights. The Authority will consider factors such as the size and scope of the pool of issuers that each ECAI covers, the range and meaning of the assessments that it assigns, and the definition of default used by the ECAI.

10. The Authority recognizes Standard and Poor's, Moody's and Fitch IBCA as eligible ECAIs. With respect to the possible recognition of other rating agencies as eligible ECAIs, the Authority will update this paragraph subject to the rating agencies satisfying the eligibility requirements.

Long Term		
Standard and Poors	Fitch	Moodys Investors Service
AAA to AA-	AAA to AA-	Aaa to Aa3
A+ to A-	A+ to A-	A1 to A3
BBB+ to BBB-	BBB+ to BBB-	Baa1 to Baa3
BB+ to B-	BB+ to B-	Ba1 to B3
Below B-	Below B-	Below B3
Unrated	Unrated	Unrated

Short Term		
Standard and Poors	Fitch	Moodys Investors Service
A-1	A-1	P-1
A-2	A-2	P-2
A-3	A-3	P-3

11. Banks must use the chosen ECAIs and their ratings consistently for each type of claim, for both risk weighting and risk management purposes. Banks will not be allowed to "cherry-pick" the assessments provided by different ECAIs.

12. Banks must disclose 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 determined by supervisors through the mapping process as well as the aggregated risk-weighted assets for each risk weight based on the assessments of each eligible ECAI.

Multiple assessments

13. If there is only one assessment by an ECAI chosen by Banks for a particular claim, that assessment should be used to determine the risk weight of the claim. If there are two assessments by ECAIs chosen by Banks which map into different risk weights, the higher risk weight will be applied. If there are three or more assessments with different risk weights, the assessments corresponding to the two lowest risk weights should be referred to and the higher of those two risk weights will be applied.

Issuer versus issues assessment

14. Where Banks invest in a particular issue that has an issue-specific assessment, the risk weight of the claim will be based on this assessment. Where Banks claims are 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 Bank'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 Banks unassessed claims if the claims ranks *pari passu* or senior to claims with an assessment in all respects. If not, the credit assessment cannot be used and unassessed claims will 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 unassessed 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 unassessed claim on the same counterparty will be assigned the same risk weight as is applicable to the low quality assessment.

15. Whether Banks intend 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 (principal and interest where applicable) that Banks have with regard to all payments owed to them.

16. 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 92 on the effects of CRM).

Domestic currency and foreign currency assessments

17. 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.

18. Domestic currency ratings, if separate, would only be used to risk weight claims denominated in the domestic currency.[67]

Short-term/long-term assessments

19. 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 21 of this Annex. In no event can a short-term rating be used to support a risk weight for an unrated long-term claim. Short-term assessments may only be used for short-term claims against banks and corporates. The table below provides a framework for Banks' exposures to specific short-term facilities, such as a particular issuance of commercial paper:

Credit assessment	A-1/P-1[68]	A-2/P-2	A-3/P-3	Others[69]
Risk weight	20%	50%	100%	150%

Short Term Rating		
Standard and Poors / Moodys Investors Service/	Fitch Ratings	Risk Weight
A-1/P-1/[70]	F1	20%
A-2/P-2	F2	50%
A-3/P-3	F3	100%
Others[71]	B-D	150%

20. 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, unless Banks use recognized credit risk mitigation techniques for such claims.

21. As the Cayman Islands will use Option 2 (Annex 8 - CIMA's National Discretion Items) under the standardised approach to short term interbank claims to banks in their jurisdiction, the interaction with specific short-term assessments is expected to be the following:

[67] However, when an exposure arises through banks' participation in a loan that has been extended, or has been guaranteed against convertibility and transfer risk, by certain 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 recognised in the market and be included in footnote 28. 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.

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

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

[70] The notations follow the methodology used by Standard & Poor's, Moody's Investors Service and Fitch Ratings. The A-1rating of Standard & Poor's includes both A-1+ and A-1- and the F rating of Fitch ratings includes both the modifiers "+" and "-".

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

a) The general preferential treatment for short-term claims, applies to all claims on banks 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 favourable (i.e. lower) or identical to that 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 banks maps into a less favourable (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 that implied by the specific short-term assessment.

22. When a short-term assessment is to be used, the institution making the assessment needs to meet all of the eligibility criteria for recognising ECAIs as presented in paragraphs 2 to 8 of this Annex in terms of its short-term assessment.

Level of application of the assessment

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

Unsolicited ratings

24. Banks may use either solicited or unsolicited ratings from eligible ECAIs. However, there may be the potential for ECAIs to use unsolicited ratings to put pressure on entities to obtain solicited ratings. However, should such behaviour be identified, the Authority will consider whether to continue recognising such ECAIs as eligible for capital adequacy purposes.

ANNEX 2 - EXAMPLE OF CALCULATING LIMITS ON TIER 1 INNOVATIVE INSTRUMENTS

1. A Bank has the following eligible capital instruments:

Ordinary Share Capital	$100,000
Non-Cumulative Perpetual Preferred Stock	$20,000
Retained Earnings	$10,000

The Bank also has recorded goodwill valuing $5,000.

Total qualifying innovative instruments:-

Ordinary Share Capital	100,000
Non-Cumulative Perpetual Preferred Stock	20,000
Retained Earnings	10,000
	130,000
Less Good will	5,000
Net Amount of Non-Innovative Tier 1	125,000
Allowable Amount of Innovative Instrument:	
125,000 x (15%/85%)	22,059

ANNEX 3 - DEFINITIONS AND GENERAL TERMINOLOGY (SECURITISATIONS)

Originating bank

25. For risk-based capital purposes, Banks are considered to be an originator with regard to a certain securitisation if they meet either of the following conditions:
    a) Banks originate directly or indirectly underlying exposures included in the securitisation; or
    b) Banks serves as a sponsor of an asset-backed commercial paper (ABCP) conduit or similar program that acquires exposures from third-party entities. In the context of such programs, Banks would generally be considered a sponsor and, in turn, an originator if it, in fact or in substance, manages or advises the program, places securities into the market, or provides liquidity and/or credit enhancements.

Asset-backed commercial paper (ABCP) program

26. An asset-backed commercial paper (ABCP) program predominately issues commercial paper with an original maturity of one year or less that is backed by assets or other exposures held in bankruptcy-remote, special purpose entity.

Clean-up call

27. A clean-up call is an option that permits the securitisation exposures (e.g. asset-backed securities) to be called before all of the underlying exposures or securitisation exposures have been repaid. In the case of traditional securitisations, this is generally accomplished by repurchasing the remaining securitisation exposures once the pool balance or outstanding securities have fallen below some specified level. In the case of a synthetic transaction, the clean-up call may take the form of a clause that extinguishes the credit protection.

Credit enhancement

28. A credit enhancement is a contractual arrangement in which Banks retain or assume a securitisation exposure and, in substance, provides some degree of added protection to other parties to the transaction.

Credit-enhancing interest-only strip

29. A credit-enhancing interest-only strip (I/O) is an on-balance sheet asset that (i) represents a valuation of cash flows related to future margin income, and (ii) is subordinated.

Early amortization

30. Early amortization provisions are mechanisms that, once triggered, allow investors to be paid out prior to the originally stated maturity of the securities issued. For risk-based capital purposes, an early amortization provision will be considered either controlled or non-controlled. A controlled early amortization provision must meet all of the following conditions.
    a) Banks must have an appropriate capital/liquidity plan in place to ensure that they have sufficient capital and liquidity available in the event of an early amortization.
    b) Throughout the duration of the transaction, including the amortization period, there is the same pro rata sharing of interest, principal, expenses, losses and recoveries based

on the Banks' and investors' relative shares of the receivables outstanding at the beginning of each month.

c) Banks must set a period for amortization that would be sufficient for at least 90% of the total debt outstanding at the beginning of the early amortization period to have been repaid or recognized as in default; and

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

31. An early amortization provision that does not satisfy the conditions for a controlled early amortization provision will be treated as a non-controlled early amortization provision.

Excess spread

32. Excess spread is generally defined as gross finance charge collections and other income received by the trust or special purpose entity (SPE, specified in paragraph 34 of this Annex) minus certificate interest, servicing fees, charge-offs, and other senior trust or SPE expenses.

Implicit support

33. Implicit support arises when a bank provides support to a securitisation in excess of its predetermined contractual obligation.

Special purpose entity (SPE)

34. An SPE is a corporation, trust, or other entity organised for a specific purpose, the activities of which are limited to those appropriate to accomplish the purpose of the SPE, and the structure of which is intended to isolate the SPE from the credit risk of an originator or seller of exposures. SPEs are commonly used as financing vehicles in which exposures are sold to a trust or similar entity in exchange for cash or other assets funded by debt issued by the trust.

ANNEX 4 - DETAILED LOSS EVENT TYPE BY CLASSIFICATION

Event-Type Category (Level 1)	Definition	Categories (Level 2)	Activity (Level 3)
Internal Fraud	Losses due to acts of a type intended to defraud, misappropriate property or circumvent regulations, the law or company policy, excluding diversity/discrimination events, which involves at least one internal party.	Unauthorised Activity	Transactions not reported (intentional)
			Transaction type unauthorised (w/monetary loss)
			Mismarking of position (intentional)
		Theft and Fraud	Fraud / credit fraud / worthless deposits
			Theft / extortion / embezzlement / robbery
			Misappropriation of assets
			Malicious destruction of assets
			Forgery
			Check kiting
			Smuggling
			Account take-over / impersonation / etc.
			Tax non-compliance / evasion (wilful)
			Bribes / kickbacks
			Insider trading (not on firm's account)

Event-Type Category (Level 1)	Definition	Categories (Level 2)	Activity (Level 3)
External Fraud	Losses due to acts of a type intended to defraud, misappropriate property or circumvent the law, by a third party.	Theft and Fraud	Theft/Robbery
			Forgery
			Check kiting
		Systems Security	Hacking damage
			Theft of information (w/monetary loss)
Employment Practices and Workplace Safety	Losses arising from acts inconsistent with employment, health or safety laws or agreements, from payment of personal injury claims, or from diversity / discrimination events.	Employee Relations	Compensation, benefit, termination issues
			Organised labour activity
		Safe Environment	General liability (slip and fall, etc.)
			Employee health & safety rules events
			Workers compensation
		Diversity & Discrimination	All discrimination types
Clients, Products & Business Practices	Losses arising from an unintentional or negligent failure to meet a professional obligation to specific clients (including fiduciary and suitability requirements), or from the nature or design of a product.	Suitability, Disclosure & Fiduciary	Fiduciary breaches / guideline violations
			Suitability / disclosure issues (KYC, etc.)
			Retail customer disclosure violations
			Breach of privacy

Event-Type Category (Level 1)	Definition	Categories (Level 2)	Activity (Level 3)
			Aggressive sales
			Account churning
			Misuse of confidential information
			Lender liability
		Improper Business or Market Practices	Antitrust
			Improper trade / market practices
			Market manipulation
			Insider trading (on firm's account)
			Unlicensed activity
			Money laundering
		Product Flaws	Product defects (unauthorised, etc.)
			Model errors
		Selection, Sponsorship & Exposure	Failure to investigate client per guidelines
			Exceeding client exposure limits
		Advisory Activities	Disputes over performance of advisory activities

Event-Type Category (Level 1)	Definition	Categories (Level 2)	Activity (Level 3)
Damage to Physical Assets	Losses arising from loss or damage to physical assets from natural disaster or other events.	Disasters and other events	Natural disaster losses
			Human losses from external sources (terrorism, vandalism
Business disruption and system failures	Losses arising from disruption of business or system failures.	Systems	Hardware.
			Software.
			Telecommunications.
			Utility outage / disruptions.
Execution, Delivery & Process Management	Losses from failed transaction processing or process management, from relations with trade counterparties and vendors.	Transaction Capture, Execution & Maintenance	Miscommunication
			Data entry, maintenance or loading error
			Missed deadline or responsibility
			Model / system mis-operation
			Accounting error / entity attribution error
			Other task mis-performance
			Delivery failure
			Collateral management failure
			Reference Data Maintenance

Event-Type Category (Level 1)	Definition	Categories (Level 2)	Activity (Level 3)
		Monitoring and Reporting	Failed mandatory reporting obligation
			Inaccurate external report (loss incurred)
		Customer Intake and Documentation	Client permissions / disclaimers missing
			Legal documents missing / incomplete
		Customer / Client Account Management	Unapproved access given to accounts
			Incorrect client records (loss incurred)
			Negligent loss or damage of client assets
		Trade Counterparties	Non-client counterparty mis-performance
			Misc. non-client counterparty disputes
		Vendors & Suppliers	Outsourcing
			Vendor disputes

ANNEX 5 - MAPPING OF THE BUSINESS LINES

Level 1	Level 2	Activities Group	% of Gross Income	Composition of Gross Income
Corporate Finance	Corporate Finance Municipal/Government Finance Merchant Banking Advisory Services	Mergers and acquisitions, underwriting, privatisations, securitisation, research, debt (government, high yield), equity, Syndications, IPO, secondary private placements.	18	Net fees / commissions earned in each business line.
Trading & Sales	Sales Market Making Proprietary Positions Treasury	Fixed income, equity, foreign exchanges, commodities, credit, funding, own position securities, lending and repos, brokerage, debt, prime brokerage.	18	Profits / losses on instruments held for trading purposes, net of funding cost. Fees from wholesale broking.
Retail Banking	Retail Banking	Retail lending and deposits, banking services, trust and estates.	12	Net interest income on loans and advances to retail customers and small businesses treated as retail.

Level 1	Level 2	Activities Group	% of Gross Income	Composition of Gross Income
	Private Banking	Private lending and deposits, banking services, trust and estates, investment advice.		Fees related to traditional retail activities. Net income from swaps and derivatives held to hedge the retail banking book.
	Card Services	Merchant/commercial/corporate cards, private labels and retail.		Income on purchased retail receivables.
Commercial Banking	Commercial Banking	Project finance, real estate, export finance, trade finance, factoring, leasing, lending, guarantees, bills of exchange.	15	Net interest income on loans and advances to corporate, inter-bank and sovereign customers. Income on purchased corporate receivables.
				Fees related to traditional commercial banking activities including commitments, guarantees, and bills of exchange.

Level 1	Level 2	Activities Group	% of Gross Income	Composition of Gross Income
				Net interest income on securities held in the banking book. Profits/losses on swaps and derivatives held to hedge the commercial banking book.
Payment & Settlement	External Clients	Payments and collections, funds transfer, clearing and settlements.	18	Net fees / commissions earned. Fees to cover provision of payments / settlement facilities for wholesale counterparties.
Agency Services	Custody	Escrow, depository receipts, securities lending (customers) corporate actions.	15	Net fees / commissions earned in each business.
	Corporate Agency	Issuer and paying agents.		
	Corporate Trust			
Asset Management	Discretionary Funds	Pooled, segregated, retail, institutional, closed, open, private.	12	Net fees / commissions earned in each business.
	Non-Discretionary	Pooled, segregated, retail, institution, closed, open.		

Level 1	Level 2	Activities Group	% of Gross Income	Composition of Gross Income
Retail Brokerage	Retail Brokerage	Execution and full service.	12	Net fees / commissions earned in each business.

ANNEX 6 - RULES FOR BUSINESS LINE MAPPING UNDER THE STANDARDISED APPROACH

C

a) All activities must be mapped into the eight business lines in a mutually exclusive and jointly exhaustive manner. All income must be allocated to one of the business lines.

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 the activity supports more than one business line, an objective mapping criterion must be consistently adopted and the reasoning behind adopting that criterion recorded by the Bank.

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 will apply to any associated ancillary activity.

d) Banks may use internal pricing methods to allocate gross income between business lines provided that total gross income for the Bank (as would be recorded under the Basic Indicator Approach) 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 explained 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 record any exceptions or overrides.

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 board of directors).

i) The mapping process to business lines must be subject to independent review.

ANNEX 7 - RULES FOR BUSINESS LINE MAPPING UNDER THE ALTERNATIVE STANDARDISED APPROACH

C

a) All activities must be mapped into the two aggregated business lines (retail and commercial banking together, and the six other together) 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 criterion must be consistently adopted and the reasoning behind adopting that criterion recorded by the Bank.

c) 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 explained and documented.

d) 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 record any exceptions or overrides.

e) Processes must be in place to define the mapping of any new activities or products.

f) Senior management is responsible for the mapping policy (which is subject to the approval by the board of directors).

g) The mapping process to business lines must be subject to independent review.

ANNEX 8 - CIMA'S NATIONAL DISCRETION ITEMS

A. THE CONSTITUENTS OF CAPITAL AND OTHER ISSUES

Paragraph [72]	Area of National Discretion	CIMA's Comment
49 (xiii)	Employ a third tier of capital (Tier 3), consisting of short term subordinated debt for the sole purpose of meeting a proportion of the capital requirements for market risks.	CIMA proposes to exercise this option subject to the conditions listed in paragraph 49(xiii) of the Framework
49(xiii)	Limit the eligibility of Tier 2 and Tier 3 capital i.e. the sum total of Tier 2 plus Tier 3 capital should not exceed total Tier 1.	CIMA proposes to exercise this option.
49 (xviii)	Apply a policy of deduction either for 1. all holding of other bank's capital 2. holdings that exceed material limits in relation to the holding bank's capital or the issuing bank's capital; or 3. on a case by case basis.	CIMA proposes to deduct holdings that exceed material limits[73] in relation to the holding bank's capital or the issuing bank's capital.

[72] The paragraph numbers in this Annex refer to the paragraphs within the Basel Committee on Banking Supervision's document entitled: International Convergence of Capital Measurements and Capital Standards – A Revised Framework, Comprehensive Version, June 2006.

[73] CIMA will develop guidance on these material limits that will be included in upcoming Basel II policy documents.

B. CREDIT RISK, CREDIT RISK MITIGATION AND ASSET SECURITISATION

Paragraph	National Discretion Issue	CIMA's Comment
	Claims on sovereigns	
54	Recognise the lower risk weights of other supervisory authorities for domestic currency sovereign exposures and allow banks to apply the same risk weight to domestic currency exposures to their sovereign (or central bank) funded in that currency.	CIMA proposes to exercise this discretion as in these instances there is negligible cross-border risk.
201	Similar to paragraph 54, extend this treatment to portions of claims guaranteed by the sovereign (or central bank), where the guarantee is denominated in the domestic currency and the exposure is funded in that currency.	CIMA proposes to exercise this discretion as in these instances there is negligible cross-border risk.
55	Allow the recognition of export credit agencies' country risk scores for risk weighting claims on sovereign exposures.	CIMA proposes to exercise this discretion and use the consensus risk scores of ECAs' participating in the "Arrangement on Officially Supported Export Credits" to recognise ECAs. To qualify, an ECA must publish its risk scores and subscribe to the OECD's methodology.
56	Allow claims on the Bank for International Settlements, the International Monetary Fund, the European Central Bank and the European Community to receive a 0% risk weight.	CIMA proposes to exercise this discretion.
	Claims on non-central government public sector entities (PSEs)	
57	Claims on domestic PSEs to be risk-weighted using either option 1 or option 2 for claims on banks.	CIMA is proposing to require banks to use Option 1; therefore claims on PSEs would receive one category less favourable that that assigned to claims on the sovereign of incorporation.
58	Claims on domestic public sector entities (PSEs) may be treated as claims on the sovereigns in whose jurisdictions the PSEs are established.	CIMA proposes an exception to option 1. If there is an explicit guarantee provided by the sovereign, claims on domestic PSE may be treated as claims on the sovereigns in the jurisdictions they are established.
	Claims on banks	

Paragraph	National Discretion Issue	CIMA's Comment
60 - 64	Require banks to risk weight claims on banks using either of the two options below: • Under **Option 1**, all banks incorporated in a given country will be assigned a risk weight one category less favourable than that assigned to claims on the sovereign of incorporation. However, for claims to banks in sovereigns rated BB+ to B- and to banks in unrated countries the risk weight will be capped at 100%; or • Under **Option 2** a banks' risk weighting is based on the external credit assessment of the bank itself. Under this option, a preferential risk weight that is one category more favourable than the risk weight shown in the table below may be applied to claims with an original maturity of three months or less, subject to a floor of 20%. This treatment will be available to both rated and unrated bank claims, but not to banks risk weighted at 150%	CIMA proposes to require banks to adopt **Option 2** as this option does not prejudice banks that have a rating more favourable than the jurisdiction of incorporation, or give a more favourable rating based on the jurisdiction of incorporation.
62 (note 25)	Allow claims on banks with an original maturity of three months or less a preferential risk weight that is one category more favourable, subject to a floor of 20%. This treatment will be available to both rated and unrated banks, but not to banks risk weighted at 150%.	CIMA proposes to exercise this discretion. However claims with (contractual) original maturity under 3 months that are expected to be rolled over (i.e. where the effective maturity is longer than 3 months) do not qualify for this preferential treatment for capital adequacy purposes.
64	Allow a preferential treatment for claims on banks with an original maturity of 3 months or less denominated and funded in the domestic currency.	CIMA proposes to exercise this discretion.
65	**Claims on securities firms** 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 (including, in particular, risk-based capital requirements). Otherwise such claims would follow the rules for claims on corporate exposures.	CIMA proposes to exercise this discretion.

Paragraph	National Discretion Issue	CIMA's Comment
67	**Claims on corporate exposures** Increase the standard risk weight for unrated claims when a higher risk weight is warranted by the overall default experience in their jurisdiction.	CIMA does *not* propose to exercise this discretion at this time as the Cayman Islands do not have the necessary data to analyse the default experience of unrated claims.
68	**Claims on corporate exposures** Allow banks to risk weight all corporate claims at 100% without regard to external ratings.	CIMA may permit banks to risk weight all corporate claims at 100% on a case by case basis for their entire portfolio. Where this discretion is exercised, banks must apply a single consistent approach i.e. either to use always ratings wherever available or risk weight all corporate claims at 100% without regard to external ratings.
	Claims included in the regulatory retail portfolios	
69	Claims that qualify under the criteria listed in **paragraph 70 may** be considered as retail claims for regulatory capital purposes and included in a regulatory retail portfolio. Exposures included in such a portfolio **may** be risk-weighted at 75%, except as provided in paragraph 75 for past due loans.	CIMA proposes to allow a 75% risk weighting for claims in the regulatory retail portfolio that meet the four Basel II criteria outlined in paragraph 70 of the Framework.
70	Set a numerical limit for the granularity criterion in the retail portfolio (for instance, that no aggregate exposure to one counterparty can exceed 0.2% of the overall regulatory retail portfolio.	CIMA does not propose to set a numerical limit on the granularity criterion.
71	CIMA should determine whether the risk weights in paragraph 69 are considered to be too low based on the default experience for these types of exposures and require banks to increase these risk weights as appropriate.	CIMA proposes to use the 75% risk weight proposed by the Framework in the absence of any high default experience for these types of exposures.
73	**Claims secured by residential property** CIMA 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, and require banks to increase these risk weights as appropriate.	CIMA proposes the following: For claims secured by residential properties with loan-to-value (LTV) ratios of up to 80% a risk weight of 35% will apply. For higher LTV ratios, a risk weight of 75% for the portion above 80% LTV will apply.

Paragraph	National Discretion Issue	CIMA's Comment
		If a bank does not hold information regarding LTVs for individual exposures, a risk weighting of 50% will apply to the whole of those exposures.
74 (note 29)	**Claims secured by commercial real estate** Allow certain commercial property loans to be risk-weighted at 50% (subject to certain conditions as set out on footnote 29).	CIMA does *not* propose to exercise this discretion and will require *all* mortgages on commercial real estate to be risk weighted at 100%.
	Past due loans	
75	*Unsecured portion of past due loans* Allow the unsecured portion of past due loans (*other than qualifying residential mortgages*) that have specific provisions that are greater 50% of their outstanding amount a preferential risk weight of 50%.	CIMA does *not* propose to exercise this discretion.
78	*Unsecured portion of past due loans* Allow the unsecured portion of past due *qualifying residential mortgages* that have specific provisions that are greater than 20% of their outstanding amount a preferential risk weight of 50%.	CIMA does *not* propose to exercise this discretion.
75 (note 30)	Allow banks to treat non-past due loans extended to counterparties subject to a 150% risk weight in the same way as past due loans.	CIMA proposes to exercise this discretion. (This would refer to counterparties with ratings below BB-).
(76 (note 31)	For the purpose of defining the secured portion of the past due loan, allow a transitional period of three years during which a wider range of collateral for higher risk categories (past due assets) may be recognised. This expands the range of eligible collateral as described in paragraphs 145 to 146.	At this time CIMA does *not* propose to exercise this discretion.
77	If past due loans are fully secured by those forms of collateral that are *not* recognised in paragraphs 145 and 146, apply a 100% risk weight when provisions reach 15% of the outstanding amount of the loan.	At this time CIMA does *not* propose to recognise forms of collateral outside the range of eligible collateral specified in the Framework.
80	**Other Assets categories** Apply a 150% or higher risk weight reflecting the higher risks associated with some other assets, such as venture capital and private equity investments.	CIMA proposes that banks apply a 150% risk weight to certain assets including venture capital and private equity exposures.
81 (note 32)	Allow banks to risk-weight of 0% to gold bullion held in bank's own vaults or on an	CIMA proposes to exercise this discretion as gold bullion is

Paragraph	National Discretion Issue	CIMA's Comment
	allocated basis to the extent it is backed by bullion liabilities.	considered equivalent to cash.
102 (note 37)	**Implementation considerations – Domestic and foreign currency assessments** Permit the use of a borrower's domestic currency rating for an exposure in foreign currency if the exposure arises through a bank's participation in a loan that has been extended, or has been guaranteed against convertibility and transfer risk, by certain Multi-lateral Development Banks.	CIMA proposes to exercise this discretion.
108	**Implementation considerations – Use of unsolicited ratings** Allow banks to use unsolicited ratings in the same way as solicited ratings (paragraph 108).	CIMA proposes to exercise this discretion.
136	**Credit Risk Mitigation** For certain types of repo-style transactions, allow banks using standard supervisory haircuts or own-estimate haircuts not to apply these in calculating the exposure amount after risk mitigation.	CIMA proposes to exercise this discretion for standardised supervisory hair-cuts only.
138	**Credit Risk Mitigation** As a further alternative to standard supervisory haircuts and own-estimate haircuts, allow banks to use (Value-at-Risk) VaR models for calculating potential price volatility for repo-style transactions and other similar securities financing transactions (SFTs), as set out in paragraphs 178 to 181 (i) below. Alternatively, banks may also calculate an expected positive exposure, as set forth in Annex 4 of the Basel II document.	CIMA does *not* propose to exercise this discretion at this time and will consider allowing banks to use VaR models for calculating potential price volatility for repo-style transactions and other similar SFTs after 2012.
170 - 171	**Credit Risk Mitigation** Allow a zero haircut for repo-style transactions where the following conditions are satisfied, and the counterparty is a *core market participant*.	CIMA proposes to exercise this discretion subject to transaction and counterparty meeting the criteria stated in paragraph 170 and 171 of the Framework.
171	**Credit Risk Mitigation** Define core market participant.	CIMA proposes to use the definition in paragraph 171 of the Framework.
172	**Credit Risk Mitigation** Recognise other supervisors' preferential treatment of repo-style transactions in securities issued by its domestic government.	CIMA proposes to exercise this discretion.

Paragraph	National Discretion Issue	CIMA's Comment
154	**Credit Risk Mitigation** Allow banks to calculate *H* using their own internal estimates of market price volatility and foreign exchange volatility.	CIMA does *not* propose to exercise this discretion at this time.
582	**Asset Securitisation** If contractually provided for, allow servicer cash advances or facilities that are unconditionally cancellable without prior notice to be eligible for a 0% CCF.	CIMA proposes to exercise this discretion.

C. OPERATIONAL RISK

Paragraph	National Discretion Issue	CIMA's Comment
652	**The Standardised Approach** Allow a bank to use the Alternative Standardised Approach (ASA) provided the bank is able to satisfy CIMA that this alternative approach provides an improved basis by, for example, avoiding double counting of risks. (*It is not envisaged that large diversified banks in major markets would use the ASA.* ***Note 104*****).**	CIMA proposes to exercise this discretion. However once a bank has been allowed to use the ASA, it will not be allowed to revert to use of the Standardised Approach without CIMA's prior approval.
654	**The Alternative Standardised Approach** Allow a bank to adopt a more conservative treatment of negative gross income.	CIMA will require banks to adopt the more conservative treatment of gross income.
663	**Qualifying criteria (TSA)** Impose criteria as requirements for non-internationally active banks. (Internationally active banks using the standardised approach must meet the criteria in para. 663).	CIMA does not propose to require non-internationally active banks using TSA to satisfy the criteria set out in para. 663. However CIMA expects all banks to adhere to the Rule on the Operational Risk Management for banks that all banks and adopt the principles set out in the accompanying Statement of Guidance.

D. MARKET RISK AND TRADING BOOK DEFINITION

Paragraph	National Discretion Issue	CIMA's Comment
	Scope of Capital Charges	
683 (v)	Allow banking and financial entities in a group that is running a global consolidation book and whose capital is being assessed on a global basis to report short and long positions in exactly the same instrument on a net basis, irrespective of where they are booked.	CIMA proposes to exercise this discretion for exposures that are consolidated for regulatory purposes with the Cayman bank. However, CIMA may apply an exception to this discretion, for instance, 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.
689 (ii)	For active market makers, establish a dealer exception for holdings of other banks', securities firms', and other financial entities' capital instruments in the trading Book.	CIMA proposes to exercise this discretion on a case by case basis. In order to qualify for the dealer exception, the bank must have adequate systems and controls surrounding the trading of financial institutions' eligible regulatory capital instruments.
	Methods of Measuring Market Risks	
701 (i)	Allow banks to use either standardised method or the internal models approach.	CIMA will allow only the standardised method commencing January 1, 2011. The internal models approach will be considered from 2012 and onwards.
701 (ii)	Allow banks to use risk measures derived from their own internal risk management.	CIMA will *not* exercise this discretion during phase 1 as banks will only be permitted to use the standardised method commencing January 1, 2011. The internal models approach will be considered from 2012 and onwards.
708(i)	Allow banks to use a use a combination of the standardised measurement method and the internal models approach to measure their market risks.	CIMA will not exercise this discretion during phase 1 as banks will only be permitted to use the standardised method commencing January 1, 2011. The internal models approach will be considered from 2012 and onwards.
	Interest Rate Risk	

Paragraph	National Discretion Issue	CIMA's Comment
710(i)	Apply a specific risk weight to securities issued by certain governments, especially to securities denominated in a currency other than that of the issuing government.	CIMA proposes to exercise this discretion on a case by case basis (especially for those claims CIMA deems are of a higher risk).
710 (i) Footnote 118	Include local and regional governments subject to a zero credit risk weight in this Framework.	CIMA proposes to exercise this discretion that is similar to the treatment in most jurisdictions.
711	Apply a lower risk charge to government paper denominated in the domestic currency and funded by the bank in the same currency.	CIMA proposes to exercise this discretion that is similar to the treatment in most jurisdictions.
711 (i)	Include within the qualifying category debt securities issued by banks in countries that have implemented this Framework.	CIMA proposes *not* to exercise this discretion to include unrated securities/claims of a bank within the qualifying category.
711(i)	Include within the qualifying category debt securities issued by securities firms that are subject to equivalent rules.	CIMA proposes *not* to exercise this discretion to include unrated securities issued by a securities firm within the qualifying category.
712 (ii)	For debt instruments that have a high yield to redemption relative to government debt securities, CIMA will either • apply a higher specific risk charge to such instrument; and or/ • disallow offsetting for the purposes of defining the extent of general market risk between such instruments and any other debt instruments.	CIMA will consider this discretion, on a case-by-case basis as it will allow CIMA to require banks to increase the specific risk charge on certain debt instruments if the specific risk is underestimated.
718 (vii)	Allow banks to use the duration method for measuring all their general market risk by calculating the price sensitivity or each position separately.	CIMA proposes to exercise this discretion. This method is more accurate and many countries encourage the use of the duration method.
	Foreign Exchange Risks	
718 (xlii)	Allow banks doing negligible business in foreign currency that do not take foreign exchange positions for their accounts exemption from capital requirements on these positions.	CIMA proposes to exercise this discretion provided that: • their 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[74]; and • their overall net open

[74] as defined in paragraphs 49(xxi) and 49 (xxii)

Paragraph	National Discretion Issue	CIMA's Comment
		position as defined in the paragraph above does not exceed 2% of eligible capital[1]
	Commodities Risks	
718 (xlvi)	There are three alternative approaches for measuring commodities positions: • standardised approach • maturity ladder approach • internal model approach.	CIMA will allow banks to use the *standardised approach* or the *maturity ladder* to calculate capital for commodities positions.
718(xlvii)	Allow netting between different sub-categories of the same commodity in cases where the sub-categories are deliverable against each other.	CIMA proposes to exercise this discretion that will allow commodities to be grouped into clans, families, sub-groups and individual commodities.[75] This will be considered when the commodities are close substitutes against each other and have a minimum correlation of 0.9 between the price movements over the last 12 months.
	Treatment of Options	
718(lvi)	Allow the following alternatives for the treatment of options: • Banks that solely use purchased options may use the simplified approached. • Banks that also write options will be expected to use the intermediate approach or a comprehensive risk management model.	CIMA proposes that banks that solely use the purchased options will be allowed to use the simplified approach, however for those banks that also write options, CIMA will require the use of the intermediate approaches (delta plus or scenario). The comprehensive risk management model for the treatment of written options will be considered from 2012 and onwards during the implementation of the advanced approaches.
718 (lix) note 152	Require banks to use the scenario approach or the internal models approach on certain	CIMA will require banks to use the scenario approach during

[75] For example, a clan might be Energy Commodities, within which Hydro-Carbons is a family with Crude Oil being a sub-group and West Texas Intermediate, Arabian Light and Brent being individual commodities.

Paragraph	National Discretion Issue	CIMA's Comment
	classes of exotic options (e.g. barriers, digitals) or in options at the money that are close to expiry.	phase I as the use the internal models approach will be considered from 2012 and onwards.
718 (lxii) note 155	Require specific banks to calculate gamma capital charges to capture specific risk for interest rate and equity options.	CIMA proposes to exercise this discretion on a case-by-case basis and require additional charges for gamma.
718(lxiii)	For banks that are significant traders in options, allow for interest rate options to base the calculation on a minimum of six sets of time-bands.	CIMA proposes to exercise this discretion on a case by case basis.