SCHEDULE 1

[ss. 2, 73, 120, 166 & 182]

SPECIFICATIONS FOR PURPOSES OF CERTAIN DEFINITIONS IN SECTION 2(1) OF THESE RULES

PART 1

DOMESTIC PUBLIC SECTOR ENTITIES

1. MTR Corporation Limited.
2. Kowloon-Canton Railway Corporation.
3. Hong Kong Housing Authority.
4. Hospital Authority.
5. Airport Authority.
6. The Hong Kong Mortgage Corporation Limited.
7. Urban Renewal Authority.
8. 香港五隧一橋有限公司 Hong Kong Link 2004 Limited.
9. Hong Kong Trade Development Council.
10. Ocean Park Corporation.

PART 2

RELEVANT CCF IN RESPECT OF CERTAIN OFF-BALANCE SHEET EXPOSURES

PART 3

RESTRICTED COLLECTIVE INVESTMENT SCHEMES

PART 4

RESTRICTED DEBT SECURITIES

PART 5

RESTRICTED FOREIGN PUBLIC SECTOR ENTITIES

PART 6

RESTRICTED INSURANCE REGULATORS

PART 7

RESTRICTED JURISDICTIONS

PART 8

RESTRICTED SECURITIES REGULATORS

PART 9

RESTRICTED SOVEREIGNS

PART 10

RELEVANT INTERNATIONAL ORGANIZATIONS

1. Bank for International Settlements.
2. International Monetary Fund.
3. European Central Bank.
4. European Community.

SCHEDULE 2 [ss. 7, 8, 9, 10 & 186 & Sch. 3]

MINIMUM REQUIREMENTS TO BE SATISFIED FOR APPROVAL UNDER SECTION 8 OF THESE RULES TO USE IRB APPROACH

1. **General requirements**

An authorized institution which makes an application under section 8 of these Rules to use the IRB approach shall demonstrate to the satisfaction of the Monetary Authority that—

(*a*) the board of directors (or a committee designated by the board) and the senior management of the institution—

(i) approve all the key elements of, and any material changes to, the institution's rating system;

(ii) possess an understanding of the design and operation of, and the management reports generated by, the institution's rating system adequate for them to perform their functions specified in this paragraph;

(iii) exercise oversight of the institution's rating system sufficient to ensure that the rating system complies with paragraph (*b*); and

(iv) ensure that there is a reporting system within the institution to provide information (including, but not limited to, information relating to any material changes to, or deviations from, established policies and procedures or any material findings identified in a review or audit referred to in paragraph (*j*)) to them regularly and in sufficient detail as will enable them to—

(A) exercise the oversight referred to in subparagraph (iii); and

(B) make informed decisions relating to credit approval, risk management and corporate governance and (where paragraph (*b*)(vi)(A) is applicable) internal capital adequacy assessment based on the information generated by the institution's rating system;

(*b*) the institution's rating system—

(i) is suitable for the purposes of identifying, measuring and controlling the institution's credit risk taking into account the characteristics and extent of the institution's exposures;

(ii) is capable of generating reasonably accurate, consistent and verifiable credit risk components and of calculating the institution's regulatory capital for credit risk;

(iii) is operated in a prudent and consistently effective manner;

(iv) is operated in compliance with Part 6 of these Rules or in a manner which although not fully in compliance with that Part, will not result in any material non-compliance with other requirements specified in this section;

(v) plays an essential role in the institution's ongoing credit approval, risk management and corporate governance functions;

(vi) either—

(A) plays an essential role in the institution's ongoing internal capital adequacy assessment; or

(B) will eventually play, within a period and in a manner agreed to by the Monetary Authority, an essential role in the institution's ongoing internal capital adequacy assessment once the systems and procedures being developed by the institution as at the date of the institution's application to use the IRB approach under section 8 of these Rules for conducting the assessment are implemented in accordance with a plan agreed to by the Monetary Authority;

(vii) is applied by the institution so as to satisfy the minimum IRB coverage ratio set out in section 11 of these Rules; and

(viii) enables the institution to comply with any rules made by the Monetary Authority under section 60A of the Ordinance as amended by the Banking (Amendment) Ordinance 2005 (19 of 2005) in respect of any disclosures by the institution in respect of—

(A) the institution's credit risk; and

(B) the manner in which the institution manages its credit risk;

(*c*) the institution has a credit risk control unit—

(i) which is functionally independent of the institution's staff and management responsible for credit initiation;

(ii) which reports directly to the institution's senior management; and

(iii) which is responsible for—

(A) the design or selection, testing and implementation of the institution's rating system;

(B) the oversight of the effectiveness of the institution's rating system for the purposes of paragraph (*b*)(i), (ii) and (iii);

(C) the monitoring and review of any override relating to the inputs to, or the outputs of, the institution's rating system;

(D) the production and analysis of the management reports generated by the institution's rating system; and

(E) the ongoing review of, and changes to, the institution's rating system;

(*d*) the institution has a sufficient number of staff who are qualified and trained to use the institution's rating system in the institution's business, risk control, audit and back office functions as will enable these functions to work effectively in identifying, measuring and controlling the institution's credit risk;

(*e*) the institution clearly documents all the key elements of, and the history of major changes in, the institution's rating system and the contents of the documentation are consistent with, and evidence the institution's compliance with, the requirements specified in this section;

(*f*) the institution has an effective system to collect, store, process, retrieve and utilize data on obligor and facility characteristics and default and loss information in respect of the institution's exposures in a reliable and consistent manner, and the data stored are in sufficient detail as will enable the institution to comply with the requirements specified in this section;

(*g*) where the institution uses models which are based on statistical techniques or expert judgment, or both, to assign exposures to obligor grades and facility grades, or pools, and to estimate the credit risk components in respect of those grades or pools, the use of those models will not result in any distortion in the calculation of the institution's regulatory capital for credit risk;

(*h*) the institution has a comprehensive stress-testing programme conducted regularly for the assessment of the adequacy of—

(i) the institution's regulatory capital and (where paragraph (*b*)(vi)(A) is applicable) internal capital for credit risk; and

(ii) the institution's ability to withstand any future events or changes in economic conditions which may have adverse effects on credit quality of the institution's exposures;

(*i*) the institution has a reliable system for validating regularly the accuracy and consistency of the institution's rating system (including models used as referred to in paragraph (*g*)), by persons who are qualified and trained to do so and who are independent of the development of the institution's rating system, through—

(i) vetting data inputs to the institution's rating system;

(ii) reviewing the outputs of the institution's rating system;

(iii) evaluating the logic and conceptual soundness of the institution's rating system;

(iv) implementing an effective control process for making changes to the institution's rating system in response to the results of the validation; and

(v) reviewing any proposed development of the institution's rating system to assess whether the rating system will function effectively as intended if the proposed development is implemented; and

(*j*) an independent review or audit of the institution's compliance with the requirements specified in this section is conducted regularly by the institution's internal auditors or by independent external parties which are qualified to do so.

2. Specific requirements

Without prejudice to the generality of section 1, an authorized institution shall demonstrate to the satisfaction of the Monetary Authority that—

(*a*) the suitability and capability of the institution's rating system for the purposes of section 1(*b*)(i) and (ii) are supported by parallel calculations carried out prior to the use of the IRB approach for the calculation of the institution's regulatory capital for credit risk for such period as the Monetary Authority considers reasonable in all the circumstances of the case; and

(*b*) the institution has been using a rating system, and estimates of credit risk components generated by that rating system, which are broadly consistent with the requirements of Part 6 of these Rules for the estimation of credit risk components and the calculation of credit risk under the IRB approach, in the institution's credit approval, risk management and corporate governance functions and (where section 1(*b*)(vi)(A) is applicable) internal capital adequacy assessment prior to the use of the IRB approach for the calculation of the institution's regulatory capital for credit risk for such period as the Monetary Authority considers reasonable in all the circumstances of the case.

3. **Meaning of "parallel calculations"**

In section 2(*a*), "parallel calculations" (對比計算), in relation to an authorized institution, means calculations—

(*a*) of which—

(i) one set consists of those calculations derived from the approach the institution actually uses during the period covered by the parallel calculations to calculate its credit risk; and

(ii) the other set consists of those calculations derived from the IRB approach the subject of an application made by the institution under section 8 of these Rules;

(*b*) which are in such form as agreed between the Monetary Authority and the institution; and

(*c*) which contain such information, and use such data and methodology, as agreed between the Monetary Authority and the institution.

SCHEDULE 3 [ss. 18, 19, 97, 317, 318, 319 & 320]

MINIMUM REQUIREMENTS TO BE SATISFIED FOR APPROVAL UNDER SECTION 18 OF THESE RULES TO USE IMM APPROACH

1. **General requirements**

An authorized institution which makes an application under section 18 of these Rules to use the IMM approach shall demonstrate to the satisfaction of the Monetary Authority that—

(*a*) the board of directors (or a committee designated by the board) and the senior management of the institution—

(i) approve all the key elements of, and any material changes to, the institution's market risk management system (being the methods, models, processes, controls, and data collection and information technology systems used by the institution which enable the identification, measurement and control of market risk by the institution);

(ii) possess an understanding of the design and operation of, and the management reports generated by, the institution's market risk management system adequate for them to perform their functions specified in this paragraph;

(iii) exercise oversight of the institution's market risk management system sufficient to ensure that the system complies with paragraph (*b*); and

(iv) ensure that there is a reporting system within the institution to provide information (including, but not limited to, information relating to any material changes to, or deviations from, established policies and procedures or any material findings identified in a review or audit referred to in paragraph (*m*)) to them regularly and in sufficient detail as will enable them to—

(A) exercise the oversight referred to in subparagraph (iii); and

(B) make informed decisions relating to the institution's market risk exposures;

(*b*) the institution's market risk management system—

(i) is suitable for the purposes of identifying, measuring and controlling the institution's market risk taking into account the characteristics and extent of the institution's market risk exposures; and

(ii) is operated in a prudent and consistently effective manner;

(*c*) the institution has a market risk control unit—

(i) which is functionally independent of the institution's staff and management responsible for originating and trading market risk exposures;

(ii) which reports directly to the institution's senior management; and

(iii) which is responsible for—

(A) the design or selection of the institution's market risk management system;

(B) the testing and implementation of the institution's market risk management system;

(C) the oversight of the effectiveness of the institution's market risk management system for the purposes of paragraph (*b*);

(D) the production and analysis of daily management reports based on the output of the institution's internal models to which the application relates (referred to in this Schedule as "relevant models");

(E) the ongoing review of, and changes to, the institution's market risk management system; and

(F) the conduct of a regular back-testing programme to verify the accuracy and reliability of the relevant models;

(*d*) the institution has a sufficient number of staff who are qualified and trained to use the relevant models in the institution's business, risk control, audit and back office functions as will enable these functions to work effectively in identifying, measuring and controlling the institution's market risk;

(*e*) the institution clearly documents the relevant models and the internal policies, controls and procedures relating to the operation of the models and has a system for monitoring and ensuring compliance with those internal policies, controls and procedures;

(*f*) the institution has policies and procedures to ensure that the valuation of the institution's market risk exposures is prudently made whenever there are uncertainties affecting the accuracy of valuation estimates;

(*g*) the use of the relevant models plays an essential role in the institution's daily risk management process, with—

(i) the VaR generated from the relevant models being used in determining the institution's trading and market risk exposure limits; and

(ii) the relationship between the relevant models and those limits being maintained consistently over time and understood by the institution's senior management and staff engaged in trading activity;

(*h*) the institution has a comprehensive stress-testing programme conducted regularly and the stress-testing results are—

(i) reported routinely to the institution's senior management and periodically to the institution's board of directors (or a committee designated by the board); and

(ii) taken into account in—

(A) setting the institution's policies and trading and market risk exposure limits; and

(B) performing the assessment of the adequacy of the institution's regulatory capital and internal capital for market risk and the institution's ability to withstand any future events, or changes in market conditions, that could have adverse effects on the institution's market risk exposures;

(*i*) the institution has a reliable system for—

(i) validating the accuracy and consistency of the relevant models by parties—
(A) who are qualified and trained to do so and who are independent of the trading functions and the development of the relevant models; and
(B) whose aim is to ascertain whether the relevant models are conceptually sound and able to capture all material factors affecting market risk;
(ii) validating the accuracy and consistency of the relevant models when a relevant model is initially developed and when any significant changes are made to the relevant model; and
(iii) validating the accuracy and consistency of the relevant models regularly or when there have been significant structural changes in the market or changes to the composition of the institution's portfolio of exposures which might lead to the relevant model concerned no longer being adequate to capture all material factors affecting market risk;

(*j*) the institution has—
(i) model validation procedures appropriate for assessing the relevant models;
(ii) procedures to ensure that both the assumptions and approximations underlying the relevant models are prudent and appropriate for the measurement of the institution's market risk exposures; and
(iii) appropriate methods of assessing the validity and performance of, and the results generated by, the relevant models;

(*k*) the relevant models capture and accurately reflect, on a continuing basis, all material factors affecting market risk inherent in the institution's market risk exposures;

(*l*) the relevant models have a proven track record of acceptable accuracy in measuring market risk;

(*m*) an independent review or audit of the institution's compliance with the requirements specified in this Schedule is conducted regularly by the institution's internal auditors or by independent external parties which are qualified to do so; and

(*n*) in respect of the relevant models—
(i) VaR is computed on a daily basis;
(ii) a one-tailed 99% confidence interval is used in calculating VaR;

(iii) the minimum holding period used by, or assumed by, the relevant models is 10 trading days for the institution's portfolio of exposures;

(iv) subject to subparagraph (vi), the historical observation period for calculating VaR is not less than 250 trading days;

(v) if the institution applies a weighting scheme to the historical observations for the calculation of VaR, a higher weighting is assigned to recent observations;

(vi) the institution is able to use a shorter historical observation period for the calculation of VaR if the Monetary Authority requests the institution to do so on the ground that the Monetary Authority is of the opinion that the request is justified due to a significant increase in volatility in the price of the institution's portfolio of exposures;

(vii) data used are updated at least once every 3 months and are reassessed whenever market prices are subject to material changes;

(viii) the relevant models only recognize empirical correlations of factors affecting market risk within and across risk categories if the institution's system for identifying and measuring correlations is effective and implemented in a prudent manner; and

(ix) the relevant models accurately capture the unique risks associated with options exercisable under option contracts and, in particular—

(A) the relevant models are able to estimate the non-linear relationship between the price movement of the institution's positions under those contracts and that of the underlying exposures of the contracts;

(B) in calculating VaR, an instantaneous 10-day movement in price is applied to the institution's option positions or positions which display option-like characteristics or, if the institution is unable to apply a full 10-day movement in price, the institution is able to use periodic simulation or stress-testing to adjust the market risk capital charge for such positions;

(C) the relevant models are able to estimate the vega risk of the institution's option positions; and

(D) if the institution's portfolio of option exposures is relatively large or complex, the institution is able to estimate in detail the volatility of option positions at different maturities.

2. **Additional requirements relating to internal models for calculation of market risk capital charge for specific risk**

Without prejudice to the generality of section 1, an authorized institution shall demonstrate to the satisfaction of the Monetary Authority that, if the institution uses the relevant models to calculate the market risk capital charge for specific risk—

(*a*) the relevant models capture all material components of market risk and are responsive to changes in market conditions and the composition of the institution's portfolios of exposures and, in particular—

(i) are capable of providing a justification for the historical price variation in the portfolios;

(ii) are sensitive to changes in portfolio construction and result in higher market risk capital charge for portfolios which have increased concentrations in particular issuers, entities or sectors of exposures;

(iii) are able to signal rising market risk in an adverse environment;

(iv) are sensitive to material idiosyncratic differences between similar but not identical positions (including, but not limited to, trading book positions in debt securities (within the meaning of section 281 of these Rules) with different levels of subordination and maturity mismatches, and credit derivative contracts with different credit events);

(v) are able to capture market risk which arises from events, other than market-wide shocks resulting in large changes in prices (referred to in this Schedule as "event risk"); and

(vi) are validated through back-testing aimed at assessing—

(A) whether specific risk is being captured adequately; and

(B) in the case where the institution uses one internal model to calculate the market risk capital charge for both specific risk and general market risk, whether both specific risk and general market risk are being captured adequately;

(*b*) if the institution is subject to event risk which is not reflected in the institution's VaR because it is outside the 10-day holding period used or assumed by the relevant models and 99% confidence interval used in calculating VaR, the institution has ensured that the impact of event risk is factored into the institution's internal assessment process through stress-testing as referred to in section 1(*h*);

(*c*) the relevant models prudently assess the market risk arising from less liquid positions and positions with limited price transparency under realistic market scenarios;

(*d*) for positions referred to in paragraph (*c*), proxies are only used—

(i) if available data are insufficient or not reflective of the true volatility of an exposure or portfolio of exposures; and

(ii) if they are prudent;

(*e*) the institution has an approach for calculating the market risk capital charge for specific risk which—

(i) captures separately the default risk of the institution's trading book positions if the institution cannot capture, or adequately capture, such risk in the relevant models; and

(ii) is embedded in the relevant models or takes the form of an additional capital charge separately calculated by the institution; and

(*f*) the institution satisfies the minimum requirements comparable to those set out in section 1 of Schedule 2 for the use of the IRB approach for the calculation of credit risk, with any necessary adjustments to reflect the impact of liquidity, concentrations and hedging on, and the option characteristics of, the institution's market risk exposures.

SCHEDULE 4 [ss. 25 & 330]

Minimum Requirements to Be Satisfied for Approval under Section 25 of these Rules to Use STO Approach or ASA Approach

1. **General requirements**

An authorized institution which makes an application under section 25 of these Rules to use the STO approach or ASA approach shall demonstrate to the satisfaction of the Monetary Authority that—

(*a*) the board of directors (or a committee designated by the board) and senior management of the institution are actively involved in—

(i) the oversight of the institution's entire risk management framework; and

(ii) the management of the institution's operational risk;

(*b*) the institution has a dedicated operational risk management function to which specific duties have been assigned, including—

(i) developing strategies to identify, assess, monitor, control and mitigate the degree of operational risk to which the institution is exposed;

(ii) establishing policies and procedures, in writing, applicable to the matters referred to in subparagraph (i);

(iii) developing and implementing—

(A) an operational risk assessment methodology appropriate for the institution; and

(B) a reporting system for operational risk which is appropriate for the institution; and

(iv) ensuring that the persons involved in the matters referred to in subparagraph (i) have ready access to the policies and procedures referred to in subparagraph (ii);

(*c*) the institution has all of its policies, and controls and procedures, relating to its system for the management of its operational risk, well documented, including policies to deal with any failure to comply with those policies or those controls and procedures;

(*d*) the institution has implemented a system to ensure compliance with the policies, and controls and procedures, referred to in paragraph (*c*);

(*e*) the institution has implemented a system requiring—

(i) that regular reports be made of information concerning the institution's operational risk, including—

(A) the results of any self-risk assessment of the institution's operational risk;

(B) the key risk indicators;

(C) information concerning the actual or potential losses which have arisen or may arise as a result of the institution's operational risk which are, in the context of the volume of the institution's business, material; and

(D) information concerning major operational events affecting the institution's operational risk; and

(ii) that regular reports be made of information of such a nature and within such time frame as will support the proactive management of the institution's operational risk by the managers of the various business units, and the chief executives and directors of the institution;

(*f*) the institution has established procedures for taking appropriate and timely action in response to the information provided pursuant to reports referred to in paragraph (*e*);

(*g*) the institution has an established assessment system for its operational risk—

(i) which is capable of systematically keeping track of relevant data concerning the institution's operational risk, in particular any material losses arising due to operational risk in different business lines of the institution; and

(ii) which plays an integral role in the institution's processes for the management of its operational risk;

(*h*) the institution has resources sufficient to—

(i) properly use the STO approach or ASA approach to calculate its operational risk in relation to the institution's major standardized business lines;

(ii) properly control such use of the STO approach or ASA approach; and

(iii) audit such use, and audit such control of such use, of the STO approach or ASA approach;

(*i*) the institution's process for the management of its operational risk and the system for assessing its operational risk are subject to validation and regular independent reviews by the institution's internal auditors or by external auditors; and

(*j*) the reviews referred to in paragraph (*i*) include the activities of particular business units of the institution and of the operational risk management function of the institution.

2. Specific mapping requirements applicable to standardized business lines

Without prejudice to the generality of section 1, an authorized institution shall demonstrate to the satisfaction of the Monetary Authority that—

(*a*) the institution has, for the purposes of using the STO approach or ASA approach, policies and criteria in writing applicable to the institution's mapping of the gross income it recognizes from its current business lines into the standardized business lines;

(*b*) the institution has in place a system for regularly reviewing and revising the policies and criteria referred to in paragraph (*a*) to ensure that they continue to be appropriate for new or changing activities or products; and

(*c*) the institution has mapped, or is capable of mapping, all its business activities into the 8 standardized business lines by the application of the following principles—

(i) each business activity of the institution is to be mapped into only one of the standardized business lines;

(ii) any business activity of the institution which cannot be readily mapped into one of the standardized business lines but which is ancillary to one only of the standardized business lines is allocated to the standardized business line to which it is so ancillary;

(iii) any business activity of the institution which cannot be readily mapped into one of the standardized business lines but which is ancillary to 2 or more standardized business lines (referred to in this paragraph as "relevant business lines") is to be allocated to one only, or to 2 or more, of the relevant business lines by the application of objective mapping criteria (which may be, or include, allocation to that relevant business line to which the business activity is principally ancillary, or to 2 or more relevant business lines in proportion to the time spent on the respective relevant business lines);

(iv) where none of the principles set out in subparagraphs (i), (ii) and (iii) enables the institution to map gross income in respect of a particular business activity (referred to in this paragraph as "relevant business activity") into a particular standardized business line, the institution—

(A) attributes the gross income to any standardized business line allocated the highest capital charge factor set out in section 331(1)(*d*) of these Rules; and

(B) also allocates to that standardized business line any business activity which is ancillary to the relevant business activity;

(v) if the institution uses internal pricing methods to allocate gross income between standardized business lines, the total gross income for the institution must still equal the sum of the gross income for the 8 standardized business lines;

(vi) the definitions of standardized business lines used for the institution's mapping of its business activities into standardized business lines for the purposes of calculating its operational risk is consistent with the definitions of standardized business lines used for the calculation of the institution's credit risk or market risk or, if there is an inconsistency—

(A) the inconsistency is readily identified as such in writing; and

(B) the reasons for the inconsistency are set out in writing;

(vii) the institution keeps a record in writing of—

(A) the definitions used by it of its standardized business lines for the purposes of calculating its operational risk;

(B) the processes used by it to map its business activities into the standardized business lines; and

(C) any exceptions (including inconsistencies) to the policies or criteria applied by the institution in mapping its business activities into the standardized business lines;

(viii) the institution has established systems, policies and procedures to readily map into its standardized business lines any new business activity carried out or to be carried out by the institution or any new product provided or to be provided by the institution;

(ix) the senior management of the institution is responsible for the development, implementation and oversight of the institution's policy in relation to mapping its business activities into the standardized business lines and the board of directors of the institution is responsible for approving the principal elements of that policy and any major revision to those elements; and

(x) the process by which the institution maps its business activities into the standardized business lines is regularly reviewed by a party independent from that process.

SCHEDULE 5 [s. 48]

OTHER DEDUCTIONS FROM CORE CAPITAL AND SUPPLEMENTARY CAPITAL

The following amounts are specified for the purposes of section 48(2)(*j*) of these Rules—

(*a*) in relation to an authorized institution which uses the STC approach, the amount of the first loss portion of a credit protection in respect of the institution's exposures as specified in section 101(2) or (8)(*c*) of these Rules;

(*b*) in relation to an authorized institution which uses the BSC approach, the amount of the first loss portion of a credit protection in respect of the institution's exposures as specified in section 135(2) or (8)(*c*) of these Rules;

(*c*) in relation to an authorized institution which uses the STC approach, BSC approach or IRB approach, the amount of the sum of—

(i) the amount of payment made by, or the current market value of the thing delivered by, the institution in respect of any transaction in securities (other than a repo-style transaction), or any transaction in foreign exchange and commodities, which—

(A) was entered into on a basis other than a delivery-versus-payment basis; and

(B) has remained unsettled after the contractual date of payment or delivery to the institution for 5 or more business days; and

(ii) the amount of any positive current exposure associated with the transaction referred to in subparagraph (i);

(*d*) in relation to an authorized institution which uses the STC(S) approach, the amount of the sum of the items falling within section 236(1)(*a*), (*c*), (*d*) or (*e*) of these Rules;

(*e*) in relation to an authorized institution which uses the IRB(S) approach, the amount of the sum of the items falling within section 251(1)(*a*), (*c*), (*d*), (*e*) or (*f*) of these Rules.

SCHEDULE 6

[ss. 55, 59, 60, 61, 62, 79, 98, 99, 139, 211, 281 & 287]

Credit Quality Grades

TABLE A

Sovereign Exposures

Credit quality grade (sovereigns)	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	AAA AA+ AA AA–	Aaa Aa1 Aa2 Aa3	AAA AA+ AA AA–	AAA AA+ AA AA–
2	A+ A A–	A1 A2 A3	A+ A A–	A+ A A–
3	BBB+ BBB BBB–	Baa1 Baa2 Baa3	BBB+ BBB BBB–	BBB+ BBB BBB–
4	BB+ BB BB–	Ba1 Ba2 Ba3	BB+ BB BB–	BB+ BB BB–
5	B+ B B–	B1 B2 B3	B+ B B–	B+ B B–
6	CCC+ CCC CCC– CC C D	Caa1 Caa2 Caa3 Ca C	CCC+ CCC CCC– CC C D	CCC+ CCC CCC– CC C

TABLE B

BANK AND SECURITIES FIRM EXPOSURES

Credit quality grade (banks and securities firms)	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	AAA AA+ AA AA–	Aaa Aa1 Aa2 Aa3	AAA AA+ AA AA–	AAA AA+ AA AA–
2	A+ A A–	A1 A2 A3	A+ A A–	A+ A A–
3	BBB+ BBB BBB–	Baa1 Baa2 Baa3	BBB+ BBB BBB–	BBB+ BBB BBB–
4	BB+ BB BB– B+ B B–	Ba1 Ba2 Ba3 B1 B2 B3	BB+ BB BB– B+ B B–	BB+ BB BB– B+ B B–
5	CCC+ CCC CCC– CC C D	Caa1 Caa2 Caa3 Ca C	CCC+ CCC CCC– CC C D	CCC+ CCC CCC– CC C

TABLE C

Corporate Exposures

Credit quality grade (corporates)	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	AAA AA+ AA AA–	Aaa Aa1 Aa2 Aa3	AAA AA+ AA AA–	AAA AA+ AA AA–
2	A+ A A–	A1 A2 A3	A+ A A–	A+ A A–
3	BBB+ BBB BBB–	Baa1 Baa2 Baa3	BBB+ BBB BBB–	BBB+ BBB BBB–
4	BB+ BB BB–	Ba1 Ba2 Ba3	BB+ BB BB–	BB+ BB BB–
5	B+ B B– CCC+ CCC CCC– CC C D	B1 B2 B3 Caa1 Caa2 Caa3 Ca C	B+ B B– CCC+ CCC CCC– CC C D	B+ B B– CCC+ CCC CCC– CC C

TABLE D

COLLECTIVE INVESTMENT SCHEME EXPOSURES

Credit quality grade (collective investment schemes)	Standard & Poor's Ratings Services Fund credit quality ratings	Standard & Poor's Ratings Services Principal stability fund ratings	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	AAAf AA+f AAf AA–f	AAAm AA+m AAm AA–m	Aaa Aa1 Aa2 Aa3	AAA AA+ AA AA–	AAAfc AA+fc AAfc AA–fc
2	A+f Af A–f	A+m Am A–m	A1 A2 A3	A+ A A–	A+fc Afc A–fc
3	BBB+f BBBf BBB–f	BBB+m BBBm BBB–m	Baa1 Baa2 Baa3	BBB+ BBB BBB–	BBB+fc BBBfc BBB–fc
4	BB+f BBf BB–f	BB+m BBm BB–m	Ba1 Ba2 Ba3	BB+ BB BB–	BB+fc BBfc BB–fc
5	B+f Bf B–f CCC+f CCCf CCC–f	Dm	B1 B2 B3 Caa1 Caa2 Caa3 Ca C	B+ B B– CCC+ CCC CCC– CC C D	B+fc Bfc B–fc CCC+fc CCCfc CCC–fc CCfc Cfc

TABLE E

Short-term Exposures (Banks, Securities Firms and Corporates)

Short-term credit quality grade (banks, securities firms and corporates)	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	A–1+ A–1	P–1	F1+ F1	a–1+ a–1
2	A–2	P–2	F2	a–2
3	A–3	P–3	F3	a–3
4	B B–1 B–2 B–3 C D	NP	B C D	b c

SCHEDULE 7

[ss. 51, 86, 94 & 96]

Standard Supervisory Haircuts for Comprehensive Approach to Treatment of Recognized Collateral

1. An authorized institution which uses the comprehensive approach to the treatment of recognized collateral shall use the standard supervisory haircuts set out in the Table to take into account the price volatility of both the exposure and the collateral.

TABLE

PART 1

STANDARD SUPERVISORY HAIRCUTS FOR DEBT SECURITIES

Item	Types of exposure or recognized collateral	Credit quality grade/ short-term credit quality grade	Residual maturity	Standard supervisory haircuts: Sovereign issuers	Standard supervisory haircuts: Other issuers
1.	Debt securities with ECAI issue specific ratings	grade 1	(*a*) not more than 1 year	0.5%	1%
			(*b*) more than 1 year but not more than 5 years	2%	4%
			(*c*) more than 5 years	4%	8%
2.	Recognized collateral which falls within any of section 79(*e*) to (*l*) of these Rules	grade 1	(*a*) not more than 1 year	0.5%	1%
			(*b*) more than 1 year but not more than 5 years	2%	4%
			(*c*) more than 5 years	4%	8%

Item	Types of exposure or recognized collateral	Credit quality grade/ short-term credit quality grade	Residual maturity	Standard supervisory haircuts	
				Sovereign issuers	Other issuers
3.	Debt securities with ECAI issue specific ratings	grades 2 and 3	(*a*) not more than 1 year	1%	2%
			(*b*) more than 1 year but not more than 5 years	3%	6%
			(*c*) more than 5 years	6%	12%
4.	Recognized collateral which falls within any of section 79(*e*) to (*l*) of these Rules	grades 2 and 3	(*a*) not more than 1 year	1%	2%
			(*b*) more than 1 year but not more than 5 years	3%	6%
			(*c*) more than 5 years	6%	12%
5.	Debt securities with long-term ECAI issue specific ratings	grade 4	All	15%	not applic-able
6.	Recognized collateral which falls within section 79(*e*), (*f*) or (*h*) of these Rules	grade 4	All	15%	not applic-able

Item	Types of exposure or recognized collateral	Credit quality grade/ short-term credit quality grade	Residual maturity	Standard supervisory haircuts	
				Sovereign issuers	Other issuers
7.	Debt securities without ECAI issue specific ratings issued by banks or securities firms, which satisfy the criteria set out in section 79(*m*) of these Rules	not applicable	(*a*) not more than 1 year	not applicable	2%
			(*b*) more than 1 year but not more than 5 years	not applicable	6%
			(*c*) more than 5 years	not applicable	12%
8.	Recognized collateral, which falls within section 79(*m*) of these Rules	not applicable	(*a*) not more than 1 year	not applicable	2%
			(*b*) more than 1 year but not more than 5 years	not applicable	6%
			(*c*) more than 5 years	not applicable	12%

PART 2

STANDARD SUPERVISORY HAIRCUTS FOR ASSETS OTHER THAN DEBT SECURITIES

Item	Types of exposure or recognized collateral	Standard supervisory haircuts
1.	Cash where both the exposure and collateral are in the same currency	0%

Item	Types of exposure or recognized collateral	Standard supervisory haircuts
2.	Recognized collateral which falls within section 79(*a*), (*b*) or (*c*) of these Rules where the exposure is in the same currency as that of the recognized collateral	0%
3.	Equities in the main index (including convertible bonds) and gold	15%
4.	Recognized collateral which falls within section 79(*d*) or (*n*) of these Rules	15%
5.	Other equities (including convertible bonds) listed on a recognized exchange	25%
6.	Recognized collateral which falls within section 80(*b*) of these Rules	25%
7.	Collective investment schemes	highest haircut applicable to any financial instruments in which the scheme can invest
8.	Recognized collateral which falls within section 79(*o*) or 80(*c*) of these Rules	highest haircut applicable to any financial instruments in which the scheme can invest

PART 3

Standard Supervisory Haircuts for Exposures and Collateral which Do not Fall within Parts 1 and 2 of this Table

Item	Types of exposure or recognized collateral	Standard supervisory haircuts
1.	Exposures and recognized collateral of repo-style transactions which satisfy the criteria set out in section 82(2) of these Rules	0%

Item	Types of exposure or recognized collateral	Standard supervisory haircuts
2.	Exposures arising from currency mismatch	8%
3.	Exposures of transactions under which the financial instruments lent by an authorized institution do not fall within Parts 1 and 2 of this Table	25%
4.	Recognized collateral which does not fall within section 80(*a*), (*b*) and (*c*) of these Rules received by an authorized institution under repo-style transactions booked in the trading book	25%
5.	Exposures not specified in this Table	25%

2. In the Table in section 1—
   (*a*) the haircuts assume daily marking-to-market, daily remargining and a 10-business day minimum holding period;
   (*b*) the haircuts for sovereigns apply to sovereign foreign public sector entities;
   (*c*) the haircuts for sovereigns set out in items 1 and 2 of Part 1 apply to multilateral development banks;
   (*d*) "debt securities" (債務證券) has the meaning assigned to it by section 51 of these Rules;
   (*e*) "recognized collateral" (認可抵押品) has the meaning assigned to it by section 51 of these Rules;
   (*f*) "other issuers" (其他發行人) includes public sector entities which are not sovereign foreign public sector entities.

SCHEDULE 8 [s. 158]

CREDIT QUALITY GRADES FOR SPECIALIZED LENDING

Credit quality grade	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	AAA	Aaa	AAA	AAA

Credit quality grade	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
	AA+	Aa1	AA+	AA+
	AA	Aa2	AA	AA
	AA–	Aa3	AA–	AA–
	A+	A1	A+	A+
	A	A2	A	A
	A–	A3	A–	A–
	BBB+	Baa1	BBB+	BBB+
	BBB	Baa2	BBB	BBB
	BBB–	Baa3	BBB–	BBB–
2	BB+	Ba1	BB+	BB+
	BB	Ba2	BB	BB
3	BB–	Ba3	BB–	BB–
	B+	B1	B+	B+
4	B	B2	B	B
	B–	B3	B–	B–
	CCC+	Caa1	CCC+	CCC+
	CCC	Caa2	CCC	CCC
	CCC–	Caa3	CCC–	CCC–
	CC	Ca	CC	CC
	C	C	C	C

SCHEDULE 9 [s. 229]

Requirements to Be Satisfied for Using Section 229(1)(*a*) of these Rules

An originating institution in a traditional securitization transaction shall demonstrate to the satisfaction of the Monetary Authority that—

(*a*) significant credit risk associated with the underlying exposures in the transaction has been transferred from the institution to third parties;

(*b*) the institution does not maintain effective control, directly or indirectly, over the underlying exposures in the transaction;

(*c*) the underlying exposures in the transaction have been validly transferred and none of the institution or the institution's creditors, or any liquidator or receiver or like officer appointed in respect of the institution, is able, or will be able, to avoid, set aside or successfully contest the transfer;

(*d*) the institution has obtained an opinion in writing from qualified legal counsel confirming that, in all relevant jurisdictions, the transaction falls within paragraph (*c*);

(*e*) the institution has obtained an adjudication from relevant tax authorities, or a tax opinion has been obtained from an accountant or tax adviser, or a person who holds such qualification as the Monetary Authority may accept as being of a standard comparable to that of an accountant or tax adviser, on whether any direct or indirect tax obligations arise as a result of any transfer of interests in underlying exposures and related collateral under the transaction;

(*f*) the documentation for the transaction accurately reflects the economic substance of the transaction;

(*g*) the documentation for the transaction does not contain any clause that—

(i) directly or indirectly makes any representation or provides any warranty as to the future credit performance of the underlying exposures;

(ii) obliges the institution to repurchase any of the underlying exposures, at any time, except where that obligation arises from a claim arising from a representation or warranty given by the institution to another person in the documentation solely in respect of the status of any underlying exposure at the time of the transfer and that is capable of being verified at that time;

(iii) requires the institution to alter the pool of underlying exposures such that the pool's credit quality is improved unless this is achieved through the purchase of underlying exposures by independent and unaffiliated third parties at market prices;

(iv) allows for increases in a first loss tranche retained, or credit enhancement provided, by the institution after the commencement of the transaction; or

(v) increases the return to parties other than the institution, such as investors in securitization issues and third party providers of credit enhancements to the transaction, in response to a deterioration in the credit quality of the pool of underlying exposures;

(*h*) the securitization issues under the transaction do not represent payment obligations of the institution such that investors who purchase the securitization issues only have recourse for payment to the pool of underlying exposures;

(*i*) the securitization issues under the transaction are issued by an SPE and the holders of the securitization issues have the right to pledge or transfer them without restriction;

(*j*) where the transaction includes a clean-up call—

(i) the exercise of the clean-up call is entirely at the discretion of the institution except where the clean-up call is exercised under circumstances beyond the control of any party to the transaction;

(ii) the clean-up call is not structured—

(A) to reduce potential or actual losses to investors or other parties to the transaction; or

(B) to provide credit enhancement to those investors and parties; and

(iii) the clean-up call is exercisable only when 10% or less of the principal amount of the securitization issues or underlying exposures at the commencement of the transaction remains outstanding;

(*k*) subject to paragraph (*l*), the institution has not committed itself to purchasing any of the securitization issues prior to their initial issue by the SPE;

(*l*) where the institution or a member of its group of companies has underwritten any securitization issues in the transaction—

(i) this has been done at an arm's length basis; and

(ii) this has been done after consultation with the Monetary Authority, in accordance with a timetable for the disposal of any positions held or to be held under the underwriting commitment; and

(*m*) where under the transaction there is an interest rate contract or exchange rate contract between the institution and the SPE which issued the securitization issues for the purposes of enabling the SPE to hedge interest rate risk or foreign exchange risk, the contract was entered into at market rates and, notwithstanding the contract, the transaction still satisfies the requirements set out in this Schedule.

SCHEDULE 10

[ss. 229, 243 & 255]

Requirements to Be Satisfied for Using Section 229(1)(*b*) of these Rules

1. **Requirements**

An originating institution in a synthetic securitization transaction shall demonstrate to the satisfaction of the Monetary Authority that—

(*a*) significant credit risk associated with the underlying exposures in the transaction has been transferred from the institution to third parties through relevant credit protection which falls within Divisions 5 to 10 of Part 4 of these Rules;

(*b*) any collateral obtained by the institution from any party to the transaction for hedging the credit risk of the underlying exposures is—

(i) recognized collateral within the meaning of section 51 of these Rules if the institution uses the STC approach to calculate its credit risk for the class of exposures into which the underlying exposures fall;

(ii) recognized collateral within the meaning of section 105 of these Rules if the institution uses the BSC approach to calculate its credit risk for the class of exposures into which the underlying exposures fall; or

(iii) recognized financial collateral within the meaning of section 139(1) of these Rules if the institution uses the IRB approach to calculate its credit risk for the class of exposures into which the underlying exposures fall,

as if the collateral were provided by any obligor of the underlying exposures, and if the collateral is provided by the SPE in the transaction, the institution has obtained the prior consent of the Monetary Authority to use the collateral as recognized collateral or recognized financial collateral for the purposes of section 243 or 255 of these Rules, as the case requires;

(*c*) subject to section 2, any guarantee or credit derivative contract provided by any credit protection provider falls within—

(i) section 98 or 99 of these Rules if the institution uses the STC approach or the IRB approach; or

(ii) section 132 or 133 of these Rules if the institution uses the BSC approach;

(*d*) the institution has obtained an opinion in writing from qualified legal counsel confirming that, in all relevant jurisdictions, the documentation for the transaction—
  (i) enables the institution to have valid, legally binding and enforceable rights over any collateral taken in respect of the transaction; and
  (ii) constitutes valid, legally binding and enforceable obligations of any credit protection provider in respect of the transaction;

(*e*) the documentation for the transaction accurately reflects the economic substance of the transaction;

(*f*) the documentation for the transaction does not contain any clause that—
  (i) materially limits the credit protection if a credit event occurs or the credit quality of the pool of underlying exposures deteriorates;
  (ii) requires the institution to alter the pool of underlying exposures such that the pool's credit quality is improved unless this is achieved through the purchase of underlying exposures by independent and unaffiliated third parties at market prices;
  (iii) allows for increases in a first loss tranche retained, or credit enhancement provided, by the institution after the commencement of the transaction;
  (iv) allows for increases in the cost of credit protection to the institution in response to a deterioration in the credit quality of the pool of underlying exposures; or
  (v) increases the return to parties other than the institution, such as investors in securitization issues and third party providers of credit enhancements to the transaction, in response to a deterioration in the credit quality of the pool of underlying exposures;

(*g*) where the transaction includes a clean-up call—
  (i) the exercise of the clean-up call is entirely at the discretion of the institution except where the clean-up call is exercised under circumstances beyond the control of any party to the transaction;
  (ii) the clean-up call is not structured—
    (A) to reduce potential or actual losses to investors or other parties to the transaction; or
    (B) to provide credit enhancement to those investors and parties; and

(iii) the clean-up call is exercisable only when 10% or less of the principal amount of the securitization issues or underlying exposures at the commencement of the transaction remains outstanding;

(*h*) subject to paragraph (*i*), the institution has not committed itself to purchasing any of the securitization issues prior to their initial issue by the SPE;

(*i*) where the institution or a member of its group of companies has underwritten any securitization issues in the transaction—

(i) this has been done at an arm's length basis; and

(ii) this has been done after consultation with the Monetary Authority, in accordance with a timetable for the disposal of any positions held or to be held under the underwriting commitment; and

(*j*) where under the transaction there is an interest rate contract or exchange rate contract between the institution and the SPE which issued the securitization issues for the purposes of enabling the SPE to hedge interest rate risk or foreign exchange risk, the contract was entered into at market rates and, notwithstanding the contract, the transaction still satisfies the requirements set out in this Schedule.

2. Provisions supplementary to section 1(*c*)

For the purposes of section 1(*c*), the SPE in the securitization transaction concerned shall not be recognized as a credit protection provider.

SCHEDULE 11 [ss. 227, 236, 237, 239 & 240]

Mapping of ECAI Issue Specific Ratings into Credit Quality Grades under STC(S) Approach

TABLE A

Long-term Credit Quality Grade

Long-term credit quality grade	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	AAA AA+ AA AA–	Aaa Aa1 Aa2 Aa3	AAA AA+ AA AA–	AAA AA+ AA AA–
2	A+ A A–	A1 A2 A3	A+ A A–	A+ A A–
3	BBB+ BBB BBB–	Baa1 Baa2 Baa3	BBB+ BBB BBB–	BBB+ BBB BBB–
4	BB+ BB BB–	Ba1 Ba2 Ba3	BB+ BB BB–	BB+ BB BB–
5	B+ B B– CCC+ CCC CCC– CC C D	B1 B2 B3 Caa1 Caa2 Caa3 Ca C	B+ B B– CCC+ CCC CCC– CC C D	B+ B B– CCC+ CCC CCC– CC C

TABLE B

Short-term Credit Quality Grade

Short-term credit quality grade	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	A–1+ A–1	P–1	F1+ F1	a–1+ a–1
2	A–2	P–2	F2	a–2
3	A–3	P–3	F3	a–3
4	B B–1 B–2 B–3 C D	NP	B C D	b c

SCHEDULE 12 [ss. 245 & 257]

CCF for Securitization Exposures Subject to Controlled Early Amortization Provision

Credit line	Uncommitted		Committed
	3-month average excess spread level	CCF	CCF
Retail	(*a*) 133.33% or more of trapping point	0%	90%
	(*b*) less than 133.33% but not less than 100% of trapping point	1%	
	(*c*) less than 100% but not less than 75% of trapping point	2%	
	(*d*) less than 75% but not less than 50% of trapping point	10%	

Credit line	Uncommitted		Committed
	3-month average excess spread level	CCF	CCF
	(*e*) less than 50% but not less than 25% of trapping point	20%	
	(*f*) less than 25% of trapping point	40%	
Non-retail	not applicable	90%	90%

SCHEDULE 13 [ss. 245 & 257]

CCF FOR SECURITIZATION EXPOSURES SUBJECT TO NON-CONTROLLED EARLY AMORTIZATION PROVISION

Credit line	Uncommitted		Committed
	3-month average excess spread level	CCF	CCF
Retail	(*a*) 133.33% or more of trapping point	0%	100%
	(*b*) less than 133.33% but not less than 100% of trapping point	5%	
	(*c*) less than 100% but not less than 75% of trapping point	15%	
	(*d*) less than 75% but not less than 50% of trapping point	50%	
	(*e*) less than 50% of trapping point	100%	
Non-retail	not applicable	100%	100%

SCHEDULE 14 [ss. 227, 251, 262 & 264]

MAPPING OF ECAI ISSUE SPECIFIC RATINGS INTO CREDIT QUALITY GRADES UNDER RATINGS-BASED METHOD

TABLE A

LONG-TERM CREDIT QUALITY GRADES

Long-term credit quality grade	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	AAA AA+	Aaa Aa1	AAA AA+	AAA AA+
2	AA AA–	Aa2 Aa3	AA AA–	AA AA–
3	A+	A1	A+	A+
4	A	A2	A	A
5	A–	A3	A–	A–
6	BBB+	Baa1	BBB+	BBB+
7	BBB	Baa2	BBB	BBB
8	BBB–	Baa3	BBB–	BBB–
9	BB+	Ba1	BB+	BB+
10	BB	Ba2	BB	BB
11	BB–	Ba3	BB–	BB–
12	B+ B B– CCC+ CCC CCC– CC C D	B1 B2 B3 Caa1 Caa2 Caa3 Ca C	B+ B B– CCC+ CCC CCC– CC C D	B+ B B– CCC+ CCC CCC– CC C

TABLE B

SHORT-TERM CREDIT QUALITY GRADES

Short-term credit quality grade	Standard & Poor's Ratings Services	Moody's Investors Service	Fitch Ratings	Rating and Investment Information, Inc.
1	A–1+ A–1	P–1	F1+ F1	a–1+ a–1
2	A–2	P–2	F2	a–2
3	A–3	P–3	F3	a–3
4	B B–1 B–2 B–3 C D	NP	B C D	b c

SCHEDULE 15 [s. 330]

STANDARDIZED BUSINESS LINES

1. Each standardized business line set out in column 2 of the Table can be—
   (*a*) divided into the major business segments set out in column 3 opposite to the standardized business line; and
   (*b*) further divided into the activity groups set out in column 4 opposite to the standardized business line.

TABLE

Item	Standardized business line	Major business segments	Activity groups
1.	Corporate finance	(*a*) corporate finance (*b*) municipal or government finance (*c*) merchant banking (*d*) advisory services	(i) mergers and acquisitions; (ii) underwriting; (iii) privatizations; (iv) securitizations; (v) research; (vi) debt (sovereign, high yield); (vii) equity; (viii) syndications; (ix) initial public offerings; (x) secondary private placements
2.	Trading and sales	(*a*) sales (*b*) market making (*c*) proprietary positions (*d*) treasury	(i) fixed income instruments; (ii) debt; (iii) equity; (iv) foreign exchange; (v) commodities; (vi) credit; (vii) funding; (viii) own position securities; (ix) lending and repo-style transactions; (x) brokerage; (xi) prime brokerage
3.	Retail banking	(*a*) retail banking	(i) retail lending and deposits; (ii) banking services; (iii) trust and estates
		(*b*) private banking	(i) private lending and deposits; (ii) banking services; (iii) trust and estates; (iv) investment advice
		(*c*) card services	(i) merchant, commercial or corporate cards; (ii) private labels cards and retail cards

Item	Standardized business line	Major business segments	Activity groups
4.	Commercial banking	commercial banking	(i) project finance; (ii) real estate finance; (iii) export finance; (iv) trade finance; (v) factoring; (vi) leasing; (vii) lending; (viii) guarantees; (ix) bills of exchange
5.	Payment and settlement	external clients	(i) payments and collections; (ii) funds transfer; (iii) clearing and settlement
6.	Agency services	(*a*) custody	(i) escrow; (ii) depository receipts; (iii) securities lending (customers); (iv) corporate actions
		(*b*) corporate agency	issuer and paying agents
		(*c*) corporate trust	
7.	Asset management	(*a*) discretionary fund management	pooled, segregated, retail, institutional, closed, open or private equity fund
		(*b*) non-discretionary fund management	pooled, segregated, retail, institutional, closed, or open fund
8.	Retail brokerage	retail brokerage	execution only and full service

2. For the purposes of item 5 in the Table in section 1, payment and settlement losses related to an authorized institution's own activities shall be allocated to the standardized business line to which the transaction occasioning the payment and settlement loss is most closely related.

Joseph C. K. YAM
Monetary Authority

23 October 2006

Explanatory Note

These Rules are made by the Monetary Authority under section 98A of the Banking Ordinance (Cap. 155) ("the principal Ordinance") as amended by the Banking (Amendment) Ordinance 2005 (19 of 2005) ("2005 Amendment Ordinance") to prescribe the manner in which the capital adequacy ratio of an authorized institution incorporated in Hong Kong ("local institution") shall be calculated.

2. In June 2004, the Basel Committee on Banking Supervision ("the BCBS") issued revised capital adequacy standards for banks under its document entitled "International Convergence of Capital Measurement and Capital Standards: A Revised Framework". The framework contained in the document is commonly referred to as "Basel II". Basel II represents a far more comprehensive approach to bank capital regulation than its predecessor, the 1988 Capital Accord ("Basel I") introduced by the BCBS. Basel I requires banks to hold a minimum level of capital for their exposures to credit risk, expressed as a minimum ratio of a bank's capital base to its risk-weighted assets. This ratio is known as the capital adequacy ratio. Basel I was subsequently amended in 1996 to incorporate banks' exposures to market risk.

3. The present statutory provisions governing the calculation of the capital adequacy ratio of a local institution, which are based on the requirements of Basel I, are contained in section 98 of the principal Ordinance as read with the Third Schedule to the principal Ordinance. The subsequent amendments to Basel I relating to market risk are reflected in paragraph 6(*e*) of the Seventh Schedule to the principal Ordinance. However, the BCBS requires its member jurisdictions to introduce the framework in Basel II from January 2007. Hong Kong is not a member of the BCBS, but has always subscribed to the supervisory standards recommended by it. Therefore, the Government has decided to introduce Basel II in accordance with the timetable set by the BCBS for its members. This has necessitated the enactment of the 2005 Amendment Ordinance. The principal statutory provisions which will govern the calculation of the capital adequacy ratio of a local institution are the definitions of "capital adequacy ratio" and "capital base" in section 2(1) of the principal Ordinance as amended by the 2005 Amendment Ordinance, sections 98 and 98A of the principal Ordinance as amended by the 2005 Amendment Ordinance, and these Rules. The Third Schedule to the principal Ordinance will be repealed by the 2005 Amendment Ordinance when the new statutory provisions come into operation.

4. The new definition of "capital adequacy ratio" in section 2(1) of the principal Ordinance names, and assigns a meaning to, 3 kinds of risk faced by local institutions, that is, credit risk, market risk and operational risk.

5. The Rules are divided into 9 Parts.

6. Part 1 contains the meaning of the expressions generally used in the Rules, and specifies that the capital adequacy ratio of a local institution is to be calculated as a ratio, expressed as a percentage, of the institution's capital base to the aggregate of the institution's risk-weighted amounts for credit risk, market risk and operational risk. (See the definitions of "risk-weighted amount", "risk-weighted amount for credit risk", "risk-weighted amount for market risk" and "risk-weighted amount for operational risk" in section 2(1).)

7. Part 2 specifies the various approaches which a local institution shall, or with the approval of the Monetary Authority may, use to calculate its credit risk, market risk and operational risk.

8. Section 5 provides that a local institution shall use the standardized (credit risk) approach to calculate its credit risk for non-securitization exposures unless it has the approval of the Monetary Authority to use the basic approach or internal ratings-based approach to calculate its credit risk for such exposures. (See the definition of "non-securitization exposure" in section 2(1).) Part 4 and Schedules 6 and 7 set out the technical details which a local institution shall comply with in using the standardized (credit risk) approach to calculate its credit risk for non-securitization exposures.

9. The Monetary Authority may only grant approval to a local institution to use the basic approach to calculate its credit risk for non-securitization exposures if the institution satisfies the requirements of section 7. Part 5 sets out the technical details which a local institution shall comply with in using the basic approach to calculate its credit risk for non-securitization exposures.

10. The Monetary Authority may only grant approval to a local institution to use the internal ratings-based approach to calculate its credit risk for non-securitization exposures if the institution satisfies the requirements of Schedule 2. Part 6 and Schedule 8 set out the technical details which a local institution shall comply with in using the internal ratings-based approach to calculate its credit risk for non-securitization exposures.

11. Subject to certain specified exceptions, a local institution shall use the standardized (securitization) approach to calculate its credit risk for securitization exposures if it would use the standardized (credit risk) approach or basic approach to calculate its credit risk for the underlying exposures in the securitization transaction concerned. (See the definitions of "securitization exposure", "securitization transaction" and "underlying exposures" in section 227(1).) Divisions 2 and 3 of Part 7 and Schedules 9, 10, 11, 12 and 13 set out the technical details which a local institution shall comply with in using the standardized (securitization) approach to calculate its credit risk for securitization exposures.

12. Similarly, and subject to certain specified exceptions, a local institution shall use the internal ratings-based (securitization) approach to calculate its credit risk for securitization exposures if it would use the internal ratings-based approach to calculate its credit risk for the underlying exposures in the securitization transaction concerned. Divisions 2, 4, 5 and 6 of Part 7 and Schedules 9, 10, 12, 13 and 14 set out the technical details which a local institution shall comply with in using the internal ratings-based (securitization) approach to calculate its credit risk for securitization exposures.

13. Section 17 provides that a local institution (except a local institution exempted under section 22(1)) shall use the standardized (market risk) approach to calculate its market risk unless it has the approval of the Monetary Authority to use the internal models approach to calculate its market risk or the approach used by its parent bank to calculate its market risk. (See the definition of "parent bank" in section 2(1).) Divisions 2 to 10 of Part 8 set out the technical details which a local institution shall comply with in using the standardized (market risk) approach to calculate its market risk.

14. The Monetary Authority may only grant approval to a local institution to use the internal models approach to calculate its market risk if the institution satisfies the requirements of Schedule 3. Divisions 11 and 12 of Part 8 set out the technical details which a local institution shall comply with in using the internal models approach to calculate its market risk.

15. Section 24 provides that a local institution shall use the basic indicator approach to calculate its operational risk unless it has the approval of the Monetary Authority to use the standardized (operational risk) approach or alternative standardized approach to calculate its operational risk. Division 2 of Part 9 sets out the technical details which a local institution shall comply with in using the basic indicator approach to calculate its operational risk.

16. The Monetary Authority may only grant approval to a local institution to use the standardized (operational risk) approach or alternative standardized approach to calculate its operational risk if the institution satisfies the requirements of Schedule 4. Division 3 of Part 9 and Schedule 15 set out the technical details which a local institution shall comply with in using the standardized (operational risk) approach to calculate its operational risk. Division 4 of Part 9 sets out the technical details which a local institution shall comply with in using the alternative standardized approach to calculate its operational risk.

17. Part 3 and Schedule 5 specify how a local institution shall determine its capital base for the purposes of the Rules.

18. The following is a list of abbreviations used in the Rules.

Abbreviation	Expression
ABCP programme	asset-backed commercial paper programme
ASA approach	alternative standardized approach
BIA approach	basic indicator approach
BSC approach	basic approach
CCF	credit conversion factor
EAD	exposure at default
ECAI	external credit assessment institution
EL	expected loss
EL amount	expected loss amount
IMM approach	internal models approach
IRB approach	internal ratings-based approach
IRB(S) approach	internal ratings-based (securitization) approach
LGD	loss given default
M	maturity
OTC derivative transaction	over-the-counter derivative transaction
PD	probability of default
SPE	special purpose entity
STC approach	standardized (credit risk) approach
STC(S) approach	standardized (securitization) approach
STM approach	standardized (market risk) approach
STO approach	standardized (operational risk) approach
VaR	value-at-risk

19. The following is a list of tables contained in the Rules.

Section No.	Table No.	Description
14	1	Transitional data requirements
55	2	Risk-weights for sovereign exposures
59	3	Risk-weights for bank exposures
59	4	Risk-weights for bank exposures with short-term ECAI issue specific ratings
60	5	Risk-weights for securities firm exposures
60	6	Risk-weights for securities firm exposures with short-term ECAI issue specific ratings
61	7	Risk-weights for corporate exposures
61	8	Risk-weights for corporate exposures with short-term ECAI issue specific ratings
62	9	Risk-weights for collective investment scheme exposures
71	10	Determination of CCF for off-balance sheet exposures other than OTC derivative transactions or credit derivative contracts
71	11	Determination of CCF for OTC derivative transactions or credit derivative contracts
91	12	Assumed minimum holding periods
97	13	Multiplier for exceptions
118	14	Determination of CCF for off-balance sheet exposures other than OTC derivative transactions or credit derivative contracts
118	15	Determination of CCF for OTC derivative transactions or credit derivative contracts
142	16	Classes and subclasses of exposures under IRB approach

Section No.	Table No.	Description
147	17	IRB calculation approaches
158	18	Supervisory rating grades for determination of risk-weights for specialized lending
160	19	Determination of effective LGD
163	20	Determination of CCF for off-balance sheet exposures other than OTC derivative transactions or credit derivative contracts
195	21	Risk-weights for cash items
220	22	Risk-weights for determination of EL of specialized lending
226	23	Adjustment factors
237	24	Risk-weights or deductions applicable to long-term credit quality grades under STC(S) approach
237	25	Risk-weights or deductions applicable to short-term credit quality grades under STC(S) approach
262	26	Risk-weights or deductions applicable to long-term credit quality grades under ratings-based method
262	27	Risk-weights or deductions applicable to short-term credit quality grades under ratings-based method
287	28	Market risk capital charge factors for specific risk
288	29	Horizontal disallowance
289	30	Time bands and risk-weights
301	31	Market risk capital charge factor for each risk category
319	32	Plus factors for back-testing exceptions

Section No.	Table No.	Description
331	33	Capital charge factor applicable to standardized business lines
Schedule 6		Credit quality grades
Schedule 7		Standard supervisory haircuts for comprehensive approach to treatment of recognized collateral
Schedule 8		Credit quality grades for specialized lending
Schedule 11		Mapping of ECAI issue specific ratings into credit quality grades under STC(S) approach
Schedule 12		CCF for securitization exposures subject to controlled early amortization provision
Schedule 13		CCF for securitization exposures subject to non-controlled early amortization provision
Schedule 14		Mapping of ECAI issue specific ratings into credit quality grades under ratings-based method
Schedule 15		Standardized business lines

20. The following is a list of formulas contained in the Rules.

Section No.	Formula No.	Description
74	1	Calculation of risk-weight of credit derivative contract which falls within section 74(6)
87	2	Calculation of net credit exposure to obligor under on-balance sheet exposure
88	3	Calculation of net credit exposure to obligor under off-balance sheet exposure other than credit derivative contract booked in the trading book and OTC derivative transaction

Section No.	Formula No.	Description
89	4	Calculation of net credit exposure to counterparty under credit derivative contract booked in trading book or OTC derivative transaction
90	5	Calculation of haircut where more than one type of recognized collateral is provided in respect of same exposure
92	6	Adjustment of standard supervisory haircuts for circumstances set out in section 92
94	7	Calculation of net credit exposure under recognized netting
95	8	Calculation of net potential exposure under nettable derivative transactions
96	9	Calculation of net credit exposure to counterparty where aggregate value referred to in section 96(2)(*a*) is greater than aggregate value referred to in section 96(2)(*b*)
97	10	Calculation of net credit exposure to counterparty under nettable repo-style transactions using VaR model
100	11	Calculation of amount of credit protection of recognized guarantee or recognized credit derivative contract where there is currency mismatch
103	12	Adjustment of calculation of value of credit protection where there is maturity mismatch
121	13	Calculation of risk-weight of credit derivative contract which falls within section 121(6)
130	14	Calculation of net credit exposure under recognized netting
131	15	Calculation of net potential exposure under nettable derivative transactions

Section No.	Formula No.	Description
156	16	Risk-weight function for corporate, sovereign and bank exposures
156	17	Risk-weight function for hedged exposures under double default framework
160	18	Determination of effective LGD
160	19	Determination of net credit exposure
168	20	Calculation of maturity for corporate, sovereign and bank exposures subject to predetermined cash flow schedule
176	21	Risk-weight function for residential mortgages
176	22	Risk-weight function for qualifying revolving retail exposures
176	23	Risk-weight function for small business retail exposures or other retail exposures to individuals
262	24	Calculation of effective number of underlying exposures
270	25	Supervisory formula
275	26	Calculation of exposure-weighted average LGD
276	27	Simplified method for calculating N
304	28	Calculation of gamma impact of option contracts
327	29	Calculation of capital charge for operational risk under BIA approach
331	30	Calculation of capital charge for operational risk under STO approach
336	31	Calculation of capital charge for operational risk in retail banking under ASA approach