

For information  
on 24 October 2002

Paper No. 46/02

**Subcommittee on Draft Subsidiary Legislation to be made  
under the Securities and Futures Ordinance**

**Securities and Futures (Financial Resources) Rules**

**Introduction**

When considering the draft Securities and Futures (Financial Resources) Rules (FRRs) on 7 October 2002, Members made a number of comments. This paper sets out the supplementary information or planned follow-up actions, as appropriate, in relation to Members' comments.

**Supplementary information and planned follow-up actions**

*Capital and liquidity requirements for Authorized Financial Institutions*

2. The HKMA has prepared the paper at the **Enclosure** to explain the regime under the Banking Ordinance that prescribes the financial resources requirements applicable to authorized financial institutions (AIs). The regime already addresses risks associated with the securities business engaged by AIs.

*Implications of changes to Hang Seng Index (HSI)*

3. Regarding Members' concern over the impact of an existing HSI constituent stock falling out of the index over brokers' ability to comply with the FRRs, generally, the Hang Seng Index Services Limited would announce changes to the composition of the index two to three weeks before implementation which should give sufficient time to allow brokers to react (for example, by putting up additional subordinated loans). Moreover, the SFC is prepared to consider granting exemption to alleviate hardship in justified cases provided that to do so will not add undue risk to the investing public.

*Interpretation of the FRRs*

4. On Members' view about the need to facilitate understanding of the FRRs, the SFC will issue guidelines setting out the respective provisions that apply to corporations licensed for different types of regulated activities.

5. As suggested by Members, the SFC will also issue guidelines setting out the criteria for approving non-dealing directors to make declaration on the financial returns as required under clause 60(4) and (5) of the FRRs, as well as the procedure for making application to the SFC under the FRRs. By way of information, similar application and approval mechanisms exist under the current regime and the SFC will prepare the guidelines with reference to past experience.

### ***Technical Amendments***

6. We have put forward our proposed amendments to the LegCo Legal Adviser for addressing his technical comment relating to the use of “listed” under the FRRs. This is a technical drafting matter which we will follow up with him direct.

7. On the definition of “equity linked instruments”, we have confirmed the accuracy of the Chinese translation of the term as “股票掛鈎票據”. We are now working with the Law Draftsman to make the definition more specific. This is a technical drafting matter which we will follow up with the LegCo Legal Adviser direct.

### ***Adopting different accounting principles***

8. On approving adoption of different accounting principles, the SFC will exercise the power only if the relevant licensed corporations are able to satisfy the SFC that to do so would not prejudice the interest of the investing public. This is a reserve power and the SFC takes the view that it is not appropriate to stipulate the criteria for approval in the legislation.

### ***Engaging the industry***

9. The SFC will definitely maintain close liaison with the industry to explain the new FRRs and help identify appropriate software for facilitating compliance.

**Financial Resources Rules (FRR)**  
**Requirements for securities brokers vs. capital/liquidity**  
**requirements for Registered Institutions (RIs)**

*Background*

Corporations licensed by the SFC are subject to the financial resources requirements imposed under the FRRs. RIs, as securities intermediaries registered with the SFC, are not subject to these requirements. This is however due to the fact that they are already regulated financial institutions and subject to no less stringent capital and liquidity requirements imposed by the HKMA, which address the same risks as those covered by the FRR (i.e. credit risk, market risk, liquidity risk and solvency risk etc). The non-application of the FRR requirements to RIs aims to avoid overlapping regulatory requirements (without compromising investor protection). This has been discussed in detail during the enactment process of the primary legislation.

*Capital adequacy*

2. Apart from the minimum initial capital requirement in monetary terms, RIs are subject to a capital adequacy regime that is based on the Capital Accord published by the Basel Committee (the international standard setter of banking supervision). The regime basically entails the calculation of capital charges in response to the risk exposures of a RI, regardless of the source (i.e. the type of business activities) that gives rise to such risk exposures. This means a RI will need to provide capital to absorb the potential loss (i.e. addressing solvency risk) arising from the risks posed by its various business activities, including securities business. The requirement is translated into a capital adequacy ratio (CAR) for the RI, which must be above a minimum level set by the HKMA. The detailed calculation of the CAR is set out in the Third Schedule to the Banking Ordinance (Annex 1).

3. At the moment the key business risks covered by the Capital Accord are credit risk and market risk. These are also the substantial risks arising from engaging in securities brokerage activities. A RI faces credit risk when it purchases securities on behalf of a customer without collecting the required funds from the customer up front, or when it provides margin lending to the customer in relation to securities purchase. It also faces market risk if the customer defaults upon settlement and it has to hold on to the securities purchased.

4. A specific limb of credit risk is settlement risk. In this context RIs generally have more protection than the securities brokers as RIs invariably require customers to designate deposit accounts opened with them for settlement purposes, and funds are usually either put on hold or even debited on the trade day. The

situation for securities brokers varies, as some of them allow customers to pay in funds on the settlement day (i.e. the second day after the trade day) or even after.

5. The Basel Committee is introducing a New Capital Accord, which will be implemented in Hong Kong in due course. This expands the capital adequacy regime to cover other risks such as operational risk (i.e. risk of loss arising from processing error, staff fraud etc), which may also feature in securities brokerage activities. Even before the implementation of the new requirement however, the existing regulatory framework set by the HKMA already covers risks other than credit and market risks. This is because the HKMA has required locally incorporated authorized institutions\* (including RIs) to observe a minimum CAR of not less than 10% as against the international standard of 8% set by the Basel Committee. This in turn provides a buffer (i.e. extra capital maintained by the RIs) to cover other risks including operational risk, legal risk etc. The HKMA also has power to increase the CAR requirement for individual locally incorporated authorized institutions (to a maximum of 12% for licensed banks and 16% for other authorized institutions). This power is used where the HKMA is of the view that a RI is faced with additional risks or that the existing regime inadequately covers its securities business. In practice, all locally incorporated authorized institutions maintain CARs well above their minimum ratios.

### *Liquidity*

6. In addition to the capital adequacy regime, a RI is also subject to the liquidity regime of the HKMA. The latter addresses the liquidity risk faced by an authorized institution on a day-to-day basis, again arising from its various business activities. This entails the calculation of a liquidity ratio, which represents the proportion of all liabilities (including firm commitments) due within one month that is covered by “liquefiable assets”. The latter basically covers assets that can be readily converted into cash within one month. A RI, like any other authorized institution, is required to observe a minimum liquidity ratio of not less than 25%. Like the CAR, the HKMA has power to vary the ratio that has to be observed by a particular institution. The detailed calculation of the liquidity ratio is set out in the Fourth Schedule to the Banking Ordinance (Annex 2).

### *Other relevant considerations*

7. Although it may be difficult to compare in detail the capital adequacy regime and the liquidity regime established by the HKMA with the FRR imposed by the SFC, it is clear that these serve to address the same types of risks. The differences in the detailed calculations stem from the fact that the FRR requirements are geared towards securities business specifically while the banking regimes cover the risks of authorized institutions regardless of the source of such risks (i.e. covering all financial

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\* Overseas incorporated authorized institutions are subject to the capital adequacy regime of their respective home supervisory authority, which is also in line with the Capital Accord.

businesses undertaken by the institution including securities business). This is the case as authorized institutions have always been supervised by the HKMA in that manner, and more importantly it does not mean that the regulatory requirements imposed by one supervisor are less stringent than those of the other.

8. It has been raised that under the FRR if a securities broker's borrowing secured by its margin clients' securities exceeds 65% of its total margin loans made to clients, then the broker is required to maintain additional liquid capital buffer in the amount of such excess. It is also said that this is more stringent than the RIs' capital adequacy requirements. This argument ignores the fact that the funding source of an authorized institution (or for this purpose a RI) is much more diverse than that of a securities broker. An authorized institution is authorized to take public deposits, which represent a major source of funding apart from its capital that is not available to a securities broker. The latter in fact may have to rely on a credit institution (most likely an authorized institution) for the requisite funding. Even for an authorized institution that does not have a retail customer deposit base, it generally can obtain funding from the interbank money market. This is often unsecured lending, and is again not available to a securities broker. In practice therefore RIs do not (and in fact have no need to) borrow on the security of their margin clients' securities. Focusing on this particular aspect alone does not present a proper picture.

#### *Risk-based supervision*

9. As indicated above, the HKMA has the power to adjust the CAR or liquidity ratio for individual RIs in light of the respective risk profile arising from their unique business operations. This is in line with the risk-based supervisory approach that the HKMA has adopted since 2000. The HKMA has issued a module (Annex 3) under its Supervisory Policy Manual that explains this supervisory framework including, in particular, the structured methodology designed to establish a forward-looking view of the risk profile of authorized institutions as well as the eight inherent risks. Adhering to this supervisory framework the HKMA will ensure that it keeps a direct and specific focus on the areas of greatest risk to an authorized institution, and take into account the implications of engaging in securities business in the case of an RI. Specific supervisory response will be devised where necessary.

10. Not in any way affecting this approach, it should be noted nevertheless that at the moment the securities operations of authorized institutions that are exempt dealers under the existing regime are relatively insignificant in relation to their overall operations. The aggregate income contribution from securities related business is less than 4% of the total operating income of such institutions. It would seem that there is a long way to go before securities business becomes a core business of most authorized institutions.

Previous section of enactment

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Switch language

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## Section of Enactment



Chapter:	155	Title:	<b>BANKING ORDINANCE</b>	Gazette Number:	L.N. 164 of 2001
Schedule:	3	Heading:	<b>CAPITAL ADEQUACY RATIO</b>	Version Date:	29/10/2001

[sections 79, 81, 98 & 135(3)]  
(Amended 42 of 1999 s. 17)

1. In this Schedule-

"bank" (銀行) means-

(a) any authorized institution (other than any authorized institution the authorization of which is for the time being suspended under section 24 or 25 of this Ordinance); and

(b) any bank incorporated outside Hong Kong which is not an authorized institution, except such a bank-

(i) which, in the opinion of the Monetary Authority, is not adequately supervised by the relevant banking supervisory authority; or

(ii) the licence or other authorization of which to carry on banking business is for the time being suspended; (Replaced 49 of 1995 s. 50)

"book value" (帳面價值) in relation to any thing means its current book value after deducting the amount of any specific provision made in the books against a reduction in its value;

"capital base" (資本基礎) means the capital base of an authorized institution determined in its value;

"Claims on or claims guaranteed by, authorized institutions in Hong Kong" (對香港的認可機構的申索或由其擔保的申索) do not include any claim on or guarantee by an authorized institution the authorization of which is for the time being suspended under this Ordinance; (Amended 49 of 1995 s. 50)

"Core Capital" (核心資本) means the sum, calculated in Hong Kong dollars, of the book values of the capital items listed in paragraph 3(a) to (f);

"debt securities" (債務證券) means any securities other than shares or stocks;

"external sovereign debt" (對外國債) means cross-border debt contracted by, or guaranteed by, a central government including any cross-border debt contracted by, or guaranteed by, commercial or other non-central government entities where there are factors indicative of a general inability for such entities to comply with their debt terms due to the unavailability of foreign currency, central government restrictions or regulations, or any other factor indicative of severe transfer risk problems; (Added L.N. 307 of 1995)

"gold bullion held on an allocated basis" (特別劃分方式持有的黃金) means gold bullion held by a person other than the authorized institution, to the order of the authorized institution, and which is separately ascertainable;

"guarantee" (擔保) includes indemnity;

"multilateral development bank" (多邊發展銀行) means the International Bank for Reconstruction and Development, the Inter-American Development Bank, the Inter-American Investment Corporation, the Asian Development Bank, the African Development Bank, the European Investment Bank, the Nordic Investment Bank, the Caribbean Development Bank, the European Bank for Reconstruction and Development or the International Finance Corporation; (Amended L.N. 407 of 1991; L.N. 336 of 1996)

"Net/Gross Ratio" (淨額/總額比率) means the ratio of net replacement cost to gross replacement cost for the contracts referred to in items 12 to 16 of Table B covered by a valid bilateral netting agreement and is calculated as the ratio, expressed as a percentage, of the net amount, if positive, of the sum of the positive and

negative mark-to-market values, calculated in Hong Kong dollars, of the contracts (provided that the net amount, if negative, should be taken as zero) to the sum of the positive mark-to-market values, calculated in Hong Kong dollars, of the contracts; (Added L.N. 336 of 1996)

"public sector entity in Hong Kong" (香港公營單位) means the MTR Corporation Limited, the Kowloon-Canton Railway Corporation, the Hong Kong Housing Authority, the Hospital Authority, the Airport Authority, The Hong Kong Mortgage Corporation Limited and any body specified by the Monetary Authority in a notice published in the Gazette; (Amended L.N. 326 of 1999; 13 of 2000 s. 65)

"public sector entity of any other Tier 1 country" (任何其他第1級國家的公營單位) means an entity which is regarded as a public sector entity by a recognized banking supervisory authority in the place in which it is incorporated;

"residential mortgage" (住宅按揭) means a mortgage under which-

(a) the borrower is an individual person;

(b) the principal sum does not exceed 90% of the purchase price or the market value of the property at the time the mortgage was approved by the authorized institution concerned, whichever amount is the lower; (Amended 42 of 1999 s. 17)

(c) the debt is secured by a first legal charge on the property;

(d) the property secured by the charge is used as the borrower's residence or as a residence by a tenant of the borrower;

"risk weighted exposure" (加權風險值) means the risk weighted exposure of an authorized institution determined in accordance with paragraph 4;

"securities not held for trading purposes" (非作交易用途証券), in relation to an authorized institution, means securities-

(a) held by the institution other than those which are acquired principally for the purpose of generating a profit from short-term fluctuations in price or dealer's margin; and

(b) designated as such by the institution; (Added L.N. 326 of 1999)

"Supplementary Capital" (附加資本) means the sum, calculated in Hong Kong dollars, of the book values of the capital items listed in paragraph 3(h) to (o) calculated in accordance with that paragraph; (Amended L.N. 326 of 1999)

"Tier 1 country" (第1級國家) means a country which is a member of the Organization for Economic Co-operation and Development or a country which has concluded a special lending arrangement with the International Monetary Fund associated with the Fund's General Arrangements to Borrow, and also includes Hong Kong but excludes any country which has rescheduled its external sovereign debt, whether to central government or non-central government creditors, within the previous 5 years; (Amended L.N. 307 of 1995)

"Tier 2 country" (第2級國家) means any country which is not a tier 1 country;

"valid bilateral netting agreement" (有效雙邊淨額結算協議) means a bilateral netting agreement in respect of which the following conditions are satisfied-

(a) the bilateral netting agreement is in writing;

(b) the bilateral netting agreement creates a single legal obligation for all individual contracts covered by the agreement, and provides, in effect, that the authorized institution would have a single claim or obligation either to receive or pay only the net amount of the sum of the positive and negative mark-to-market values of the individual contracts covered by the agreement in the event that a counterparty to the agreement, or a counterparty to whom the agreement has been validly assigned, fails to comply with any obligation under that agreement due to default, insolvency, bankruptcy, or similar circumstance;

(c) the authorized institution has been given legal advice to the effect that in the event of a challenge in a court of law, including a challenge resulting from default, insolvency, bankruptcy, or similar circumstance, the relevant court or administrative authority would find the authorized institution's exposure to be the net amount under-

(i) the law of Hong Kong or, in the case of a subsidiary of the authorized institution which is incorporated outside Hong Kong and which is included in the calculation of the capital adequacy ratio of the institution on a consolidated basis, the law of the jurisdiction in which the subsidiary is incorporated;

(ii) the law of the jurisdiction in which the counterparty is incorporated or the equivalent location in the case of non-corporate entities, and if a branch of the counterparty is involved, then also under the law of the jurisdiction in which the branch is located;

(iii) the law that governs the individual contracts covered by the bilateral netting agreement; and

(iv) the law that governs the bilateral netting agreement;

(d) the authorized institution establishes and maintains procedures to monitor developments in any law relevant to the bilateral netting agreement and to ensure that the bilateral netting agreement continues to satisfy the

conditions applicable to this definition;

(e) the authorized institution manages the transactions covered by the bilateral netting agreement on a net basis;

(f) the authorized institution maintains in its files documentation adequate to support the netting of the contracts covered by the bilateral netting agreement; and

(g) the bilateral netting agreement is not subject to a provision that permits the non-defaulting counterparty to make only limited payment, or no payment at all, to the defaulter or the estate of the defaulter, regardless of whether or not the defaulter is a net creditor under the agreement. (Added L.N. 307 of 1995)

2. The capital adequacy ratio of an authorized institution shall be calculated as the ratio, expressed as a percentage, of its capital base, determined in accordance with paragraph 3, to its risk weighted exposure determined in accordance with paragraph 4.

3. The capital base of an authorized institution shall be determined by taking the sum, calculated in Hong Kong dollars, of the book values (except in relation to subparagraph (i), where the difference between the market value and the book value is to be taken) of-

#### Category I-Core Capital

(a) its paid-up ordinary share capital other than any shares issued by the authorized institution through capitalising any property revaluation reserves referred to in subparagraph (h); (Amended L.N. 336 of 1996)

(b) its paid-up irredeemable non-cumulative preference shares, that is to say, shares that are irredeemable or that may be redeemed only with the prior consent of the Monetary Authority; (Amended L.N. 82 of 1993; L.N. 273 of 2000)

(c) its share premium account;

(d) its reserves other than those referred to in subparagraphs (e), (h), (ha) and (i): (Amended L.N. 326 of 1999)  
Provided that the amount to be included under this subparagraph as at a particular date shall be net of dividends proposed or declared by the authorized institution after that date that are recorded or required to be recorded as equity on its balance sheet as at that date; (Amended L.N. 164 of 2001)

(e) its profit and loss account including its current year's profit or loss:

Provided that the amount to be included under this subparagraph as at a particular date shall be net of dividends proposed or declared by the authorized institution after that date that are recorded or required to be recorded as equity on its balance sheet as at that date; (Amended L.N. 164 of 2001)

(f) where the Monetary Authority requires under section 79A(1) a provision of Part XV to apply to the authorized institution on a consolidated basis, or requires under section 98(2) the capital adequacy ratio of the authorized institution to be calculated on a consolidated basis, minority interests arising on such consolidation in the equity of its subsidiaries: (Amended 95 of 1991 s. 52; L.N. 273 of 2000)

Provided that-

(i) the minority interests arising on consolidation in the paid-up irredeemable non-cumulative preference shares of all its subsidiaries which are special purpose vehicles shall not exceed 15% of its Core Capital (including such minority interests) in total; and

(ii) the amount to be included under this subparagraph as at a particular date shall be net of dividends proposed or declared by the authorized institution's subsidiaries after that date that are recorded or required to be recorded as equity on the subsidiaries' balance sheets as at that date: (Amended L.N. 164 of 2001)

Provided that the amount to be included as Core Capital shall be determined by deducting therefrom the book value calculated in Hong Kong dollars of the goodwill of the institution;

#### Category II-Supplementary Capital

(g) (Repealed L.N. 326 of 1999)

(h) its reserves on revaluation of-

(i) its land and interests in land other than any interest in land mortgaged to it to secure a debt; and

(ii) its share of the net asset value of any subsidiary to the extent that such value has changed as a result of a revaluation of such subsidiary's land and interests in land other than any interest in land mortgaged to such subsidiary to secure a debt:

Provided that the amount of reserves for each of sub-subparagraphs (i) and (ii) to be included in Supplementary Capital shall not exceed-

(A) 70% of surplus, if any, on revaluation of each of sub-subparagraphs (i) and (ii) respectively; and

(B) their respective amounts included in Supplementary Capital as at 31 December 1998. (Replaced L.N. 326 of 1999)

For the purpose of this subparagraph "reserves" (儲備) includes any shares issued by the authorized institution through capitalising reserves arising from revaluation of sub-subparagraphs (i) and (ii); (Replaced L.N. 336 of 1996)

(ha) its reserves on revaluation of its holding of securities not held for trading purposes:

Provided that-

(i) the amount of overall surplus, if any, on revaluation to be included in Supplementary Capital shall be limited to 70% of such surplus;

(ii) the amount of overall deficit, if any, on revaluation shall be deducted from Supplementary Capital; (Added L.N. 326 of 1999)

(i) its latent reserves (i.e. the difference between the market value and the book value) determined upon revaluation, of long-term holding of equity securities listed on the Unified Exchange or on any exchange referred to in the Schedule to the \*Securities (Specification of Approved Assets, Liquid Assets and Ranking Liabilities) Notice (Cap 333 sub. leg.): (Amended L.N. 210 of 1990; L.N. 63 of 1991)

Provided that-

(i) the amount of overall surplus, if any, on revaluation to be included in Supplementary Capital shall be limited to 45% of such surplus;

(ii) the amount of overall deficit, if any, on revaluation shall be deducted from Supplementary Capital; (Replaced L.N. 326 of 1999)

(j) its general provisions against doubtful debts but not including any provisions against specific or identified losses and against the diminution in the value of particular assets:

Provided that the amount included under this subparagraph may not exceed 1.25% of the figure derived by the calculation specified in subparagraph (a) of paragraph 4 carried out in relation to the authorized institution;

(Amended L.N. 210 of 1990)

(k) its perpetual subordinated debt where the Monetary Authority is satisfied that under the terms of the debt instrument the following conditions are met-

(i) the claims of the lender against the authorized institution are fully subordinated to those of all unsubordinated creditors;

(ii) the debt is not secured against any assets of the authorized institution;

(iii) the money advanced to the authorized institution is permanently available to it;

(iv) the debt is not repayable without the prior consent of the Monetary Authority;

(v) the money advanced to the authorized institution is available to meet losses without the institution being obliged to cease trading;

(vi) the authorized institution is entitled to defer the payment of interest where its profitability will not support such payment;

(l) its paid-up irredeemable cumulative preference shares, that is to say, shares that are irredeemable or that may be redeemed only with the prior consent of the Monetary Authority;

(m) its term subordinated debt, where the Monetary Authority is satisfied that under the terms of the debt instrument the following conditions are met-

(i) the claims of the lender against the authorized institution are fully subordinated to those of all unsubordinated creditors;

(ii) the debt is not secured against any assets of the authorized institution;

(iii) the debt has a minimum initial period to maturity of more than 5 years (and notwithstanding that that period may be reduced with the prior consent of the Monetary Authority); (Amended L.N. 210 of 1990)

(iv) where the debt is repaid prior to maturity, the debt is not repayable without the prior consent of the Monetary Authority: (Amended L.N. 449 of 1994)

Provided that-

(A) amounts included under this subparagraph shall be discounted by 20% each year during the 4 years immediately preceding maturity; and

(B) the total amount included under this subparagraph and subparagraph (n) shall not exceed in total, 50% of the total of the Core Capital;

(n) its paid-up term preference shares, where the Monetary Authority is satisfied that the shares have been issued and remain subject to the following conditions-

(i) the shares have a minimum initial period to maturity of more than 5 years;

(ii) the shares are not redeemable without the prior consent of the Monetary Authority:

Provided that-

(A) amounts included under this subparagraph shall be discounted by 20% of the original amount each year during the 4 years immediately preceding maturity; and

(B) the total amount included under this subparagraph and subparagraph (m) shall not exceed in total, 50% of the total of the Core Capital; and

(o) where the Monetary Authority requires under section 79A(1) a provision of Part XV to apply to the authorized institution on a consolidated basis, or requires under section 98(2) the capital adequacy ratio of the authorized institution to be calculated on a consolidated basis, any minority interests arising on such

consolidation in-

(i) the paid-up irredeemable cumulative preference shares and paid-up term preference shares of its subsidiaries; and

(ii) the paid-up irredeemable non-cumulative preference shares of all its subsidiaries which are special purpose vehicles in excess of the amount permitted for inclusion as its Core Capital: (Amended 95 of 1991 s. 52; L.N. 273 of 2000)

Provided that the amount to be included under this subparagraph as at a particular date shall be net of dividends proposed or declared by the authorized institution's subsidiaries after that date that are recorded or required to be recorded as equity on the subsidiaries' balance sheets as at that date: (Amended L.N. 164 of 2001)

Provided that the amount to be included as Supplementary Capital shall not exceed the total of the amount determined as Core Capital,

and by deducting therefrom the sum calculated in Hong Kong dollars of the book value of-

(A) its shareholding in any company which is a subsidiary or holding company of the authorized institution, other than-

(i) any shareholding that falls to be deducted under subparagraph (B), (C), (D);

(ii) where the Monetary Authority requires under section 79A(1) a provision of Part XV to apply to the authorized institution on a consolidated basis, or requires under section 98(2) the capital adequacy ratio of the authorized institution to be calculated on a consolidated basis, its shareholding in any subsidiary the subject of such consolidation; and (Amended 95 of 1991 s. 52; L.N. 336 of 1996)

(iii) the authorized institution's reserves arising from the revaluation of the land and interests in land of any subsidiary not falling within the meaning of reserves under subparagraph (h); (Added L.N. 336 of 1996)

(B) its loans to, shares and debentures issued by, and its guarantees of the liabilities of, connected companies of the authorized institution (other than shares that fall to be deducted under subparagraph (D)), where in the opinion of the Monetary Authority the institution has made the loans, is holding the shares or debentures or, as the case may be, has given the guarantees, other than in the ordinary course of business; and for the purposes of this subparagraph "shares" (股份) and "debentures" (債權證) mean shares and debentures within the meaning of section 2(1) of the Companies Ordinance (Cap 32), and a company shall be treated as a connected company of the institution if it is a subsidiary or the holding company of the institution, or is otherwise of a description falling within section 64(1)(b), (c), (d) or (e);

(C) its shareholding in any company in which the authorized institution is entitled to exercise, or control the exercise of, more than 20% of the voting power at general meetings of the company; and

(D) its holding of shares, stocks or debt securities issued by any bank unless the Monetary Authority is satisfied that the holding is not the subject of an arrangement in which 2 or more persons agree to hold each other's capital or is not otherwise a strategic investment.

4. The risk weighted exposure of an authorized institution shall be that figure derived by-

(a) adding together all the products achieved by-

(i) taking the book value, calculated in Hong Kong dollars, of each of the items referred to in Table A in relation to the authorized institution; and, in relation to each item multiplying that value by the risk weight specified in Table A in relation to that item; and

(ii) multiplying the credit equivalent amount of each of the items referred to in Table B by the appropriate risk weight specified in Table A as if the items to which they relate were on-balance sheet (Table A) items provided that in relation to items 12 to 16 referred to in Table B, the risk weight shall not exceed 50%. The credit equivalent amount may be obtained- (Amended L.N. 336 of 1996)

(A) in relation to items 12 to 16 referred to in Table B where the current exposure method of valuation is used, by adding- (Amended L.N. 336 of 1996)

(I) the current exposure, which, in the case of contracts referred to in items 12 to 16 of Table B not covered by a valid bilateral netting agreement is the sum of the positive mark-to-market values, calculated in Hong Kong dollars, of the contracts; and in the case of contracts referred to in items 12 to 16 of Table B covered by a valid bilateral netting agreement is the net amount, if positive, of the sum of the positive and negative mark-to-market values, calculated in Hong Kong dollars, of each contract covered by the agreement; and (Amended L.N. 336 of 1996)

(II) the potential future credit exposure, which, in the case of-

(aa) contracts referred to in items 12 to 16 of Table B not covered by a valid bilateral netting agreement is derived by multiplying the principal amount of each contract by the credit conversion factor specified in items 12(b), 13(b), 14, 15 and 16 of Table B;

(bb) contracts referred to in items 12 to 16 of Table B covered by a valid bilateral netting agreement is derived by adding 40% of the sum of the products derived by multiplying the principal amount, calculated in Hong

Kong dollars, of each of those contracts by the credit conversion factor specified in items 12(b), 13(b), 14, 15 and 16 of Table B and 60% of the Net/Gross Ratio multiplied by the sum of the products derived by multiplying the principal amount, calculated in Hong Kong dollars, of each of those contracts by the credit conversion factor specified in items 12(b), 13(b), 14, 15 and 16 of Table B; (Replaced L.N. 336 of 1996) (B) in any case apart from those mentioned in sub-sub-subparagraph (A), including in relation to items 12 and 13 referred to in Table B where the original exposure method of valuation is used, by taking the principal amount, calculated in Hong Kong dollars, of each of the items referred to in Table B in relation to the authorized institution and multiplying the principal amount by the credit conversion factor specified in Table B in relation to that item; and (Replaced L.N. 307 of 1995)

(b) subtracting from the sum calculated under subparagraph (a)-

(i) the value of general provisions not included in the capital base of the authorized institution; and

(ii) the amount, if any, by which the book value of reserves on revaluation of paragraph 3(h)(i) exceeds the book value of such reserves as at 31 December 1998. (Replaced L.N. 210 of 1990; L.N. 326 of 1999)

#### TABLE A-ON-BALANCE SHEET ITEMS

##### Category I-Cash items

Item	Nature of item	Risk weight
1.	Notes and coins	0%
2.	Government certificates of indebtedness	0%
3.	Gold bullion in the possession of an authorized institution or held on an allocated basis, to the extent backed by gold liabilities.	0%
4.	Gold held which is not backed by gold liabilities.	100%
5.	Claims to the extent that they are collateralized by cash deposits held by the authorized institution.	0%
6.	Cash items in the course of collection	20%
6A.	Amounts due from the sale of securities, where the authorized institution has executed the transaction on behalf of a customer or for its own account, up to and including the fifth working day after the due settlement date in respect of the transaction. (Added L.N. 146 of 1993)	0%
6B.	Amounts due from the purchase of securities, where the authorized institution has executed the transaction on behalf of a customer, up to and including the fifth working day after the due settlement date in respect of the transaction. (Added L.N. 146 of 1993)	0%

##### Category II-Claims on central governments and central banks

Item	Nature of item	Risk weight
7.	Loans to, or loans to the extent that they are guaranteed by, the Exchange Fund.	0%
8.	Loans to, or loans to the extent that they are guaranteed by, the central government or the central government or the central bank of any Tier 1 country.	0%
9.	Holdings of fixed interest securities with a residual maturity of under 1 year or floating rate securities of any maturity issued by or guaranteed by the central government or by the central bank of a Tier 1 country, or by the Exchange Fund, or claims to the extent that they are collateralized by such securities.	10%
10.	Holdings of fixed interest securities with a residual maturity of 1 year and over issued by or guaranteed by the central government or by the central bank of a Tier 1 country, or by the Exchange Fund, or claims to the extent that they are collateralized by such securities.	20%
11.	Loans denominated in the currency of a Tier 2 country and funded in that currency, to, or to the extent that they are guaranteed by, the central government or the central bank of that country.	0%
12.	Holdings of fixed interest securities with a residual maturity of under 1 year or floating rate securities of any maturity issued by or guaranteed by the central government or by the central bank of a Tier 2 country, where denominated and funded in the currency of that country.	10%
13.	Holdings of fixed interest securities with a residual maturity of 1 year and over issued by or guaranteed by the central government or by the central bank of a Tier 2 country, where denominated and funded in the currency of that country.	20%
14.	Other claims on the central government or on the central bank of a Tier 2 country.	100%

### Category III-Claims on Public Sector Entities

Item	Nature of item	Risk weight
15.	Claims on or to the extent that they are guaranteed by or to the extent that they are collateralized by securities issued by, public sector entities in Hong Kong. (Amended L.N. 336 of 1996)	20%
16.	Claims on or to the extent that they are guaranteed by or to the extent that they are collateralized by securities issued by, public sector entities of any other Tier 1 country. (Amended L.N. 336 of 1996)	20%
17.	Claims on public sector entities of a Tier 2 country.	100%

### Category IV-Claims on banks

Item	Nature of item	Risk weight
18.	Claims on or to the extent that they are guaranteed by, authorized institutions or banks incorporated in Tier 1 countries.	20%
19.	Claims on or to the extent that they are guaranteed or collateralized by securities issued by, a multilateral development bank.	20%
20.	Claims on or to the extent that they are guaranteed by, any bank other than a bank referred to in item 18 or 19, with a residual maturity of under 1 year.	20%
21.	Claims on or to the extent that they are guaranteed by, any bank other than a bank referred to in item 18 or 19, with a residual maturity of 1 year or more.	100%

### Category V-Residential Mortgages

Item	Nature of item	Risk weight
22.	Loans fully secured by a residential mortgage.	50%
23.	Securities backed by residential mortgage and participations in residential mortgages, provided the holders of such securities will not absorb more than their pro rata share of losses in the event of arrears or default on payment of interest on, or principal of, the underlying mortgage loans. (Amended L.N. 336 of 1996)	50%

### Category VI-Other assets

Item	Nature of item	Risk weight
24.	Claims on non-bank private sector persons.	100%
25.	Investments in the equity or other capital instruments of other banks, other than where deducted from the capital base.	100%
26.	Premises, plant and equipment and other fixed assets for the authorized institution's own use.	100%
27.	Other interests in land. (Amended L.N. 336 of 1996)	100%
28.	All assets not elsewhere specified, other than those which are deducted in determining the capital base of the authorized institution. (Amended L.N. 326 of 1999)	100%

### TABLE B-OFF-BALANCE SHEET ITEMS

Item	Nature of item	Credit conversion factor
1.	Direct credit substitutes	100%
	Irrevocable off-balance sheet obligations which carry the same credit risk as a direct extension of credit. This includes guarantees, the confirming of letters of credit, standby letters of credit serving as financial guarantees for loans, securities and acceptances (including endorsements with the character of acceptances) other than acceptances included in item 3.	
2.	Transaction-related contingencies	50%
	Contingent liabilities which involve an irrevocable obligation of the authorized institution to pay a beneficiary when a customer fails to perform some contractual, non-financial obligation. This includes performance bonds, bid bonds, warranties and standby letters of credit related to a particular transaction.	
3.	Trade-related contingencies	20%

	Contingent liabilities which relate to trade related obligations. This includes letters of credit, acceptances on trade bills, shipping guarantees and any other trade related contingencies.	
4.	Sale and repurchase agreements (see Note 1)	100%
	Arrangements whereby the authorized institution sells a loan, security or other asset to another person with a commitment to repurchase the asset at an agreed price on an agreed future date.	
5.	Assets sales or other transactions with recourse (see Note 1)	100%
	Assets sales where the holder of the asset is entitled to put the asset back to the authorized institution within an agreed period or should the value or credit quality of the asset deteriorate.	
6.	Forward asset purchases (see Note 1)	100%
	Commitment to purchase a loan, security or other asset, including under a put option granted by the authorized institution to another party, at specified future date on pre-arranged terms.	
7.	Partly paid-up shares and securities (held by the authorized institution)	100%
	The unpaid portion of shares or securities which the issuer of such shares or securities may call for at a future date.	
8.	Forward forward deposits placed	100%
	Any agreement between the authorized institution and another party whereby the institution will place a deposit at an agreed rate of interest with that party at some predetermined future date.	
9.	Note issuance and revolving underwriting facilities	50%
	Arrangements whereby a borrower may draw down funds up to a prescribed limit over a predefined period by making repeated note issues to the market, and where, should the issue prove unable to be placed in the market, the unplaced amount is to be taken up or funds made available by the underwriter of the facility.	
10.	Other commitments with an original maturity of under 1 year or which may be cancelled at any time unconditionally by the authorized institution.	0%
11.	Other commitments with an original maturity of 1 year or over.	50%
12.	Exchange rate and gold contracts (see Note 2) (Calculated in accordance with either the original exposure method or the current exposure method) (Amended L.N. 336 of 1996)	2%
	(a) credit conversion factors to be used in calculating in accordance with original exposure method (see Note 3)- (Amended L.N. 307 of 1995)	5%
	contracts with original maturity of-	3%
	(i) 1 year or less; (Amended L.N. 336 of 1996)	
	(ii) over 1 year to 2 years; (Amended L.N. 336 of 1996)	1%
	(iii) over 2 years, the factor for over 1 year to 2 years plus for each additional year; (Amended L.N. 336 of 1996)	5%
		7.5%
	(b) credit conversion factors to be used to determine the potential future credit exposure in accordance with the current exposure method-	
	contracts with a residual maturity of-	
	(i) 1 year or less; (Amended L.N. 336 of 1996)	
	(ii) over 1 year to 5 years; (Amended L.N. 336 of 1996)	
	(iii) over 5 years (Added L.N. 336 of 1996)	
13.	Interest rate contracts (see Note 2) (Calculated in accordance with either the	0.5%

original exposure method or the current exposure method)	1%
(a) credit conversion factors to be used in calculating in accordance with original exposure method (see Note 3)- (Amended L.N. 307 of 1995) contracts with original maturity of-	1%
(i) 1 year or less; (Amended L.N. 336 of 1996)	
(ii) over 1 year to 2 years; (Amended L.N. 336 of 1996)	
(iii) over 2 years, the factor for over 1 year to 2 years plus for each additional year; (Amended L.N. 336 of 1996)	0% 0.5% 1.5%
(b) credit conversion factors to be used to determine the potential future credit exposure in accordance with the current exposure method-	
contracts with a residual maturity of-	
(i) 1 year or less; (Amended L.N. 336 of 1996)	
(ii) over 1 year to 5 years; (Amended L.N. 336 of 1996)	
(iii) over 5 years. (Added L.N. 336 of 1996)	
14. Equity contracts (Calculated in accordance with the current exposure method)-	6% 8% 10%
credit conversion factors to be used to determine the potential future credit exposure in accordance with the current exposure method-	
contracts with a residual maturity of-	
(a) 1 year or less	
(b) over 1 year to 5 years	
(c) over 5 years (Added L.N. 336 of 1996)	
15. Precious metals other than gold contracts (Calculated in accordance with the current exposure method)-	7% 7% 8%
credit conversion factors to be used to determine the potential future credit exposure in accordance with the current exposure method-	
contracts with a residual maturity of-	
(a) 1 year or less	
(b) over 1 year to 5 years	
(c) over 5 years (Added L.N. 336 of 1996)	
16. Commodities other than precious metals and gold contracts (Calculated in accordance with the current exposure method)-	10% 12% 15%
credit conversion factors to be used to determine the potential future credit exposure in accordance with the current exposure method-	
contracts with a residual maturity of-	
(a) 1 year or less	
(b) over 1 year to 5 years	
(c) over 5 years (Added L.N. 336 of 1996)	

#### Note

- The appropriate risk weight to be used in relation to transactions to which items 4, 5 and 6 apply, shall be determined on the basis of the nature of the asset and not the nature of the counterparty with whom the transaction has been entered into. Reverse repos (i.e. purchase and resale agreements where the authorized institution is the recipient of the asset) are to be regarded as collateralized loans.
- In relation to exchange rate and gold contracts and interest rate contracts an authorized institution shall, in determining the credit equivalent amount use either the current exposure method of valuation or, with the agreement of the Monetary Authority, the original exposure method of valuation. (Amended L.N. 336 of 1996)
- If an authorized institution nets its obligation with a counterparty under a valid bilateral netting agreement, it

may use the following credit conversion factor-

Nature of item	Credit conversion factor
1. Exchange rate contracts	1.5%
Credit conversion factors to be used in calculating contracts with an original maturity of-	3.75%
(a) 1 year or less (Amended L.N. 336 of 1996)	2.25%
(b) over 1 year to 2 years (Amended L.N. 336 of 1996)	
(c) over 2 years, the factor for over 1 year to 2 years plus for each additional year (Amended L.N. 336 of 1996)	
2. Interest rate contracts	0.35%
Credit conversion factors to be used in calculating contracts with an original maturity of-	0.75%
(a) 1 year or less (Amended L.N. 336 of 1996)	0.75%
(b) over 1 year to 2 years (Amended L.N. 336 of 1996)	
(c) over 2 years, the factor for over 1 year to 2 years plus for each additional year (Amended L.N. 336 of 1996)	

(Third Schedule replaced L.N. 412 of 1989. Amended 82 of 1992 s. 25)

**\* This Notice was omitted as spent in Issue 7 of the Loose-leaf Edition of Laws. For text, please see L.N. 402 of 1990, as amended by L.N. 278 of 1991 and L.N. 181 of 1992.**



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## Section of Enactment



Chapter:	155	Title:	<b>BANKING ORDINANCE</b>	Gazette Number:	L.N. 112 of 1999
Schedule:	4	Heading:	<b>LIQUIDITY RATIO</b>	Version Date:	30/04/1999

[sections 102 & 135(3)]

1. In this Schedule-

"debt securities" (債務證券) means any securities other than shares, stocks, import or export trade bills;

"eligible loan repayment" (合格貸款付還) means a repayment to an authorized institution by a customer other than a relevant bank in respect of a loan-

(a) which the authorized institution is not committed to continue, by renewal or otherwise; and

(b) which is fully performing,

being a repayment-

(i) the date of which is fixed;

(ii) which will fall due within 1 month; and

(iii) in respect of which the authorized institution has no reason to expect a default,

and where the loan is secured by a deposit referred to in paragraph 7-

(A) in the case where the loan will be fully repaid after receiving the repayment, only that part of the repayment that exceeds the aggregate of the deposit and interest payable on the deposit shall be taken to be eligible loan repayment;

(B) in the case where the loan will not be so fully repaid, the repayment so far as it is not made by a corresponding reduction of the amount of the deposit or interest payable on the deposit or both shall be taken to be eligible loan repayment, but excludes any repayment in respect of mortgage loans referred to in item 7 of Table A; (Amended L.N. 112 of 1999)

"marketable debt securities" (有價債務證券) means debt securities which have an established secondary market in Hong Kong or elsewhere in which they can be sold readily;

"multilateral development bank" (多邊發展銀行) has the meaning assigned to it in the Third Schedule;

"one-month liability" (一個月債務), in relation to any authorized institution or relevant bank, means-

(a) any liability, other than a contingent liability, the effect of which will or could be to reduce within 1 month the liquefiable assets of that authorized institution or relevant bank; and

(b) any contingent liability that in the opinion of the Monetary Authority may result in a reduction within 1 month of the liquefiable assets of that authorized institution or relevant bank;

"principal amount" (本金額)-

(a) in relation to gold or a marketable debt security or prescribed instrument, means the lower of the market value and the book value of the asset;

(b) in relation to any other liquefiable asset set out in Table A or a liability set out in Table B, means the book value of the asset or liability, and for this purpose, book value shall include interest receivable or payable by an authorized institution on the asset or liability, where applicable,

at the close of business on a working day;

"public sector entity in Hong Kong" (香港公營單位) has the meaning assigned to it in the Third Schedule;

"qualifying credit rating" (合資格信貸評級) means either-

(a) a credit rating appraised by a credit rating agency set out in column 1 of the following Table and which is

not lower than-

- (i) in the case of long-term rating, the rating specified in column 2 in relation to that credit rating agency; and
- (ii) in the case of short-term rating, the rating specified in column 3 in relation to that credit rating agency:

TABLE

Column 1 Credit rating agency	Column 2 Long-term rating	Column 3 Short-term rating
Moody's Investors Service, Inc.	A3	Prime-1
Standard and Poor's Corporation	A-	A-1;

or

(b) a rating appraised by a credit rating agency approved by the Monetary Authority and considered by him as a rating equivalent to a rating in that Table;

"relevant bank" (有關銀行) means-

- (a) any authorized institution other than an institution the authorization of which is for the time being suspended under section 24 or 25 of this Ordinance; or (Amended 49 of 1995 s. 51)
- (b) any bank incorporated outside Hong Kong which is not an authorized institution, except such a bank-
  - (i) which, in the opinion of the Monetary Authority, is not adequately supervised by the relevant banking supervisory authority; or
  - (ii) the licence or other authorization of which to carry on banking business is for the time being suspended, (Replaced 49 of 1995 s. 51) and includes the Exchange Fund established by the Exchange Fund Ordinance (Cap 66).

2. The liquidity ratio of an authorized institution shall be calculated-

- (a) as the ratio, expressed as a percentage, of the net weighted amount of its liquefiable assets determined in accordance with paragraph 4, to its qualifying liabilities, as determined in accordance with paragraph 6; and
- (b) for each calendar month, on the basis of the sum of the net weighted amount of the liquefiable assets and the sum of the qualifying liabilities for each working day of that month.

3. Notwithstanding paragraph 2(b), the Monetary Authority may, as he thinks fit, by notice in writing served on an authorized institution, permit the authorized institution to calculate its liquidity ratio by reference to such days during the month as the Monetary Authority may specify in the notice (and, if any such specified day is a public holiday, the immediately preceding working day shall be taken for the purpose of such calculation).

4. Subject to paragraph 9, the net weighted amount of the liquefiable assets of an authorized institution shall be the difference between the total of the weighted amounts calculated in accordance with paragraph 5 of each item specified in Table A held by the authorized institution that meets the requirements of paragraph 8 and the weighted amount calculated in accordance with paragraph 5 of the item specified in Table B.

5. The weighted amount of an item in Table A or B shall be calculated, in Hong Kong dollars, by multiplying the principal amount of that item by the liquidity conversion factor specified in column 3 in Table A or B in relation to that item.

6. The qualifying liabilities of an authorized institution shall be the sum, calculated in Hong Kong dollars and at book value, of-

- (a) the amount, if any, by which the total one-month liabilities of relevant banks to the authorized institution are exceeded by its total one-month liabilities to relevant banks; and
- (b) the total of its other one-month liabilities, at the close of business on a working day and for this purpose, interest payable by the authorized institution and the relevant banks shall be included in the calculation of the liabilities.

7. A deposit which has been pledged with an authorized institution for securing a loan granted to a customer other than a relevant bank and the deposit would otherwise be included in the calculation of qualifying liabilities under paragraph 6 shall be excluded in the calculation to the extent of the outstanding balance of the loan.

8. The requirements for a liquefiable asset referred to in paragraph 4 are-

- (a) except in the case described in paragraph 11(a), it must not be overdue;
- (b) it must be free from encumbrances;
- (c) it must be freely remittable and payable to the authorized institution concerned;
- (d) it must be denominated in Hong Kong dollars or in a currency freely convertible into Hong Kong dollars.

9. The Monetary Authority may, for the purpose of calculating the liquidity ratio of an authorized institution, exclude-

- (a) as a liquefiable asset, any asset or class of assets which is, in his opinion, not capable of generating cash or cash equivalent within 1 month; and
- (b) from Table B, any debt security or prescribed instrument, subject to the Monetary Authority being satisfied with the treatment of the security or instrument for the purpose of the calculation of qualifying liabilities.

10. For the purpose of the definition of "eligible loan repayment", a loan shall be regarded as fully performing if-

- (a) there are no arrears of principal or interest payment in respect of the loan; and
- (b) the loan is not a loan-
  - (i) that has been raised to repay another loan granted to the same customer by the authorized institution; or
  - (ii) the repayment date or dates of which have been postponed.

11. Notwithstanding paragraph 10-

- (a) the requirement of paragraph 10(a) may be regarded as met in the case where the loan is repayable by periodic instalments at intervals of not more than 1 month and there is no instalment which is in arrears for more than 1 month on the working day concerned; and
- (b) a loan of the type described in paragraph 10(b)(i) or (ii) may be regarded as fully performing if-
  - (i) the raising of the loan or the postponement of the repayment date or dates was not caused by a deterioration in the financial position of the customer or by his inability to repay on the original repayment date or dates;
  - (ii) the new or revised repayment terms are not unfavourable to the authorized institution as compared to the terms of other loans of similar nature granted by the authorized institution to other customers and negotiated at arm's length; and
  - (iii) the loan meets the requirement of paragraph 10(a).

TABLE A

Item	Liquefiable assets	Liquidity conversion factor
1.	Currency notes and coins	100%
2.	Gold	100%
3.	The amount, if any, by which the total one-month liabilities of the authorized institution to relevant banks are exceeded by the total one-month liabilities of relevant banks to it	100%
4.	Export bills- <ul style="list-style-type: none"> <li>(a) payable within 1 month and which are either drawn under letters of credit issued by relevant banks or accepted and payable by relevant banks; or</li> <li>(b) covered by irrevocable re-discounting facilities approved by the Monetary Authority</li> </ul>	100%
5.	Marketable debt securities or prescribed instruments- <ul style="list-style-type: none"> <li>(a) issued or guaranteed by-               <ul style="list-style-type: none"> <li>(i) the Hong Kong Government, the Exchange Fund, a public sector entity in Hong Kong or multilateral development bank with a remaining term to maturity of-                   <ul style="list-style-type: none"> <li>(A) not more than 1 year</li> <li>(B) more than 1 year</li> </ul> </li> <li>(ii) an authorized institution incorporated in Hong Kong or the Hong Kong branch of an authorized institution incorporated outside Hong Kong with a remaining term to maturity of- (Amended 23 of 1998 s. 2)                   <ul style="list-style-type: none"> <li>(A) not more than 1 month</li> <li>(B) more than 1 month but not more than 1 year</li> </ul> </li> </ul> </li> </ul>	100% 95% 100% 95% 90% 100%

(C) more than 1 year	95%
(b) with a qualifying credit rating, issued or guaranteed by-	
(i) the central bank or central government of any country with a remaining term to maturity of-	
(A) not more than 1 year	100%
(B) more than 1 year	95%
	90%

(See Note 1)

(ii) a relevant bank, other than one referred to in paragraph (a)(ii), with a remaining term to maturity of-	90%
	85%
(A) not more than 1 month	80%
(B) more than 1 month but not more than 1 year	100%
(C) more than 1 year	
(iii) a regional government of any country or other institution with a remaining term to maturity of-	80%
(A) not more than 1 year	80%
(B) more than 1 year but not more than 5 years	
(C) more than 5 years	

(c) without a qualifying credit rating, issued or guaranteed by a relevant bank, other than one referred to in paragraph (a)(ii), with a remaining term to maturity of not more than 1 month

(d) approved for inclusion by the Monetary Authority

(e) not included elsewhere in this item with a remaining term to maturity of not more than 1 month

6. Eligible loan repayments	80%
7. Residential mortgage loans in respect of which there has been issued by the Hong Kong Mortgage Corporation Limited an irrevocable commitment to purchase which is approved by the Monetary Authority (Added L.N. 112 of 1999)	90%

#### Note 1

Item 5(b)(i) includes a marketable debt security or prescribed instrument which does not have a credit rating but which is issued or guaranteed by the central bank or central government of a country that has a qualifying credit rating.

TABLE B

Item	Liabilities	Liquidity conversion factor
1.	Debt securities or prescribed instruments with a remaining term to maturity of not more than 1 month issued by the authorized institution	100%

(Fourth Schedule replaced L.N. 450 of 1994)



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This module should be read in conjunction with the [Introduction](#) and with the [Glossary](#), which contains an explanation of abbreviations and other terms used in this Manual. If reading on-line, click on blue underlined headings to activate hyperlinks to the relevant module.

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### Purpose

To explain the HKMA's risk-based supervisory approach

### Classification

A non-statutory guideline issued by the MA as a guidance note

### Previous guidelines superseded

This is a new guideline.

### Application

To all AIs

### Structure

1. Supervisory framework
  - 1.1 Introduction
  - 1.2 Key benefits
  - 1.3 Integration with CAMEL rating system
  - 1.4 Risk-based approach and methodology
  - 1.5 Risk assessment
  - 1.6 Supervisory process
  - 1.7 Primary prudential obligations of an AI
2. The eight types of inherent risk
  - 2.1 Credit risk
  - 2.2 Market risk
  - 2.3 Interest rate risk



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- 2.4 Liquidity risk
- 2.5 Operational risk
- 2.6 Reputation risk
- 2.7 Legal risk
- 2.8 Strategic risk
- 3. Four elements of a sound risk management system
  - 3.1 Summary
  - 3.2 Board and senior management oversight
  - 3.3 Policies, procedures and limit structure
  - 3.4 Risk measurement, monitoring and management reporting systems
  - 3.5 Internal controls and comprehensive audits
- 4. Rating risk management
  - 4.1 Factors considered
  - 4.2 Rating scale and integration into CAMEL rating
  - 4.3 Definitions of risk management ratings

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## 1. Supervisory framework

### 1.1 Introduction

- 1.1.1 The objective of the supervisory framework of the HKMA is to provide an effective process to monitor and assess the safety and soundness of AIs on a continuing basis. The process follows a risk-based approach. It consists of a structured methodology designed to establish a forward-looking view on the risk profile of AIs. This permits a direct and specific focus on the areas of greatest risk to an AI. It also enables the HKMA to be more proactive and better positioned to pre-empt any serious threat to the stability of the banking system from any current or emerging risks.



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1.1.2 This enhanced risk-based supervisory approach has been implemented by the HKMA in response to a recommendation in the Hong Kong Banking Sector Consultancy Study, completed in December 1998. The recommendation was based in part on a perceived need to raise the supervisory process to a more effective level by addressing the risks and increasing competition within the market place.

1.1.3 The adoption of a more risk-based framework is designed to allow the HKMA to continue to deliver consistent, high-quality supervision as the banking sector develops and risk profiles of AIs change in reaction to competitive forces. The enhanced supervisory regime will complement regulatory changes to promote both competition and the safety and soundness of the banking sector. This approach should benefit AIs as the regulatory effort is more focused on high-risk areas and provides for more efficient supervision.

### 1.2 Key benefits

1.2.1 The key benefits for both the HKMA and AIs from this enhanced supervisory framework are:

- better evaluation of risks through separate assessment of inherent risks and risk management processes;
- greater emphasis on early identification of emerging risks at individual AIs and on a sector-wide basis;
- cost-effective use of resources through a sharper focus on risk, which in time should result in examination teams spending less time on site at individual AIs;
- more utilisation by the HKMA of management information prepared by AIs;
- a better appreciation by supervisors of the management quality of AIs, the characteristics of their business and the risks they face;



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- enhanced value of the supervisory work performed to both the management of AIs and the supervisors, who have a common interest in ensuring that risks are properly identified and that adequate and effective control systems are established to monitor and control risks; and
- cost of supervision, in terms of management time of an AI, will be more directly related to the AI's risk profile, i.e. the intensity of supervision and the amount and focus of supervisory action will increase or decrease in line with the perceived risk profile of the AI.

### 1.3 Integration with CAMEL rating system

- 1.3.1 The CAMEL<sup>1</sup> rating system, which has been implemented at the HKMA since 1995, is designed to assess in a comprehensive manner an AI's financial condition, compliance with laws and regulations, risk management systems and overall operating soundness. Its primary purpose is to help identify those AIs where weaknesses in the aforementioned areas require special supervisory attention or warrant a higher than normal degree of supervisory concern.
- 1.3.2 Risk-based supervision is a dynamic and forward-looking approach, which provides the supervisory process with the necessary framework to factor the risk profile of an AI into the CAMEL rating system. Risk-taking has always been present in the banking business, and rightfully so, but has increased significantly, primarily due to the need to remain competitive in a fast-paced environment.
- 1.3.3 The risk-based methodology incorporates the risk profile, which is ascertained by balancing the level of inherent risk with the quality of risk management systems at AIs, into the CAMEL rating system. Each of the CAMEL components is, as shown in the following diagram,

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<sup>1</sup> CAMEL is an internationally recognised framework for assessing Capital adequacy, Asset quality, Management, Earnings and Liquidity. The overall rating is expressed through the use of a numerical scale of 1 to 5 in ascending order of supervisory concern.



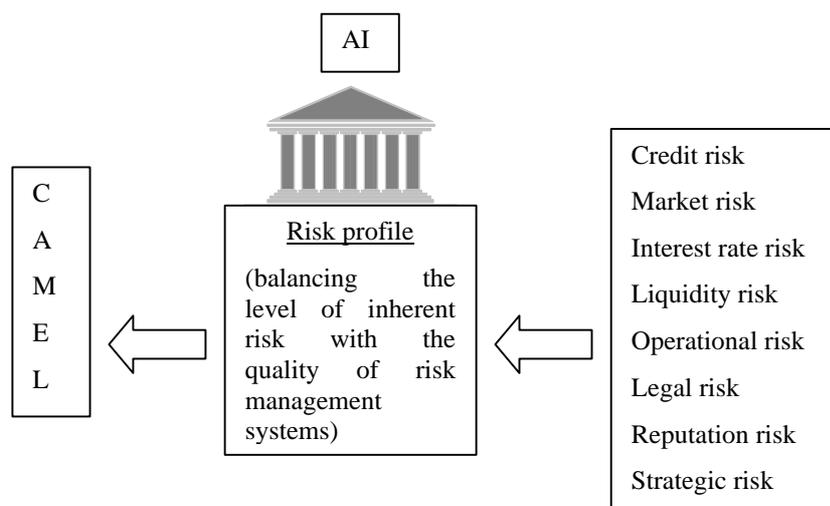
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affected by one or more of the eight inherent risks (credit, market, interest rate, liquidity, operational, legal, reputation and strategic), which the HKMA has identified as risks to be assessed during the supervisory process. These eight inherent risks are described in section 2 below.



- 1.3.4 Under the risk-based approach, a change in the CAMEL rating of an AI may result from the qualitative analysis of its risk profile in addition to the more traditional quantitative analysis of its financial data. An example of such a change would be a down-grade in asset quality to a "3" for an AI which displays current indicators representing an asset quality of "2" but whose credit risk, as a result of recent aggressive lending practices and less than satisfactory credit risk management systems, has been assessed as high.
- 1.3.5 This approach to supervision does not eliminate or change the quantitative approach to assessing the components of the CAMEL rating system but it adds a new dimension, which enables the supervisory process to inject more judgement, based on a forward perspective, in arriving at a final rating.
- 1.3.6 The risk-focused examination process places more emphasis on an evaluation of the quality of risk management systems and internal controls. A risk



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management rating is assigned at the conclusion of the on-site examination by the on-site manager to the AI and formally incorporated into the management component of the CAMEL rating. It may also influence the ratings given to the other CAMEL components, as illustrated in para. 1.3.4 above. Section 3 below gives details of the four elements of a sound risk management system and section 4 describes the risk management rating system.

### **1.4 Risk-based approach and methodology**

- 1.4.1 The risk-based supervisory approach, which emphasises effective planning and examiner judgement, customises examinations to suit the size and activities of AIs and to concentrate examiner resources on areas that expose the AI concerned to the greatest degree of risk.
- 1.4.2 The risk-based methodology, shown in the diagram below, consists of six key steps, each of which requires the preparation of specific documentation.

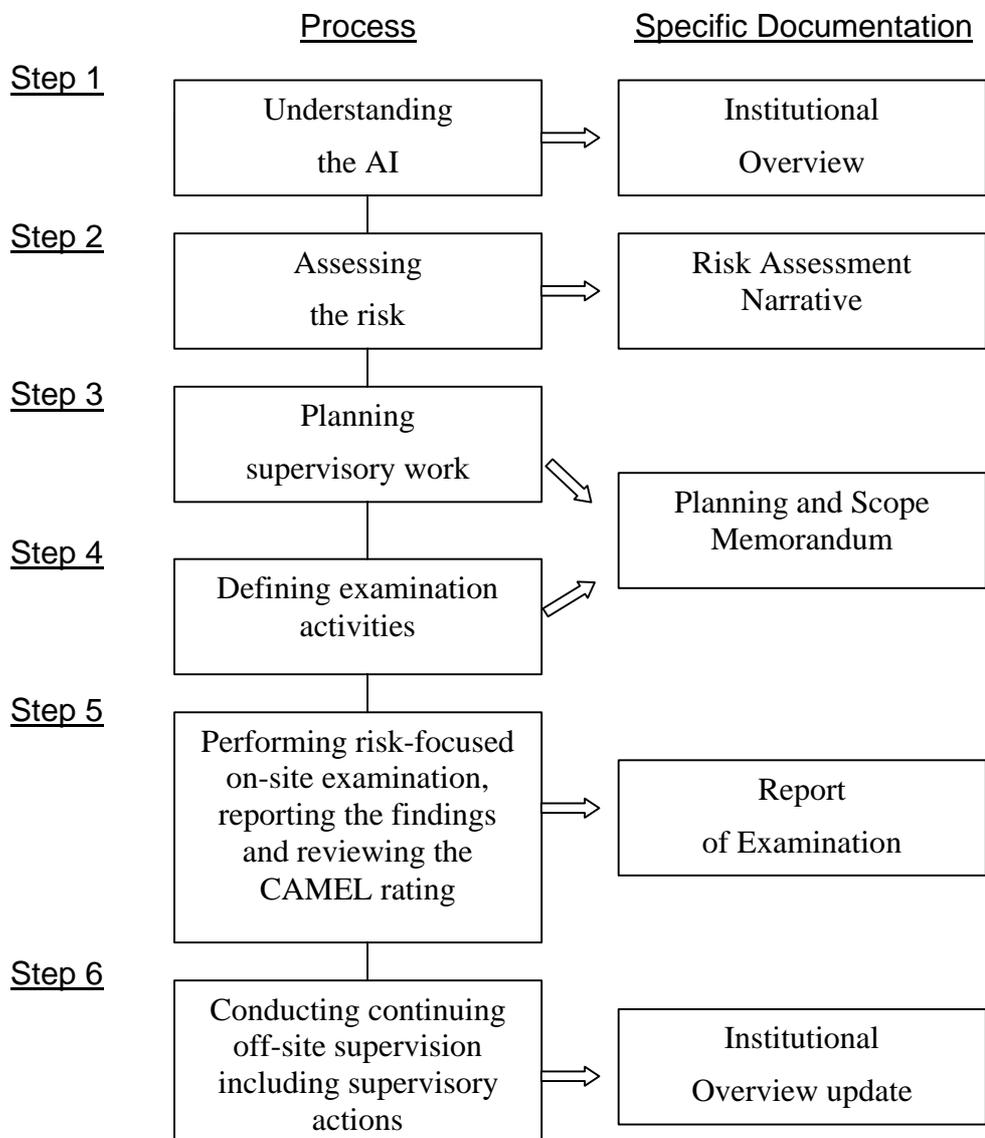


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1.4.3 The first step in the risk-based methodology, Understanding the AI, requires the preparation of an Institutional Overview document.

1.4.4 The Institutional Overview provides a concise portrait of an AI's structure and financial condition. It summarises key business lines and functions, the business strategy and any planned introduction of new products, describes legal structure and financial condition and identifies problem issues related to the AI itself or its affiliated



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entities, such as domestic or foreign subsidiaries and branches.

- 1.4.5 Information provided in the Institutional Overview is determined by the complexity of the AI and is primarily based upon internal and public sources of data, as well as information gathered from periodic on-site visitations.
- 1.4.6 The second step in the risk-based methodology, Assessing the Risk, results in the completion of a Risk Assessment Narrative.
- 1.4.7 The risk assessment exercise is designed to identify the type, level and direction of risks of an AI.
- 1.4.8 In order to conduct this exercise effectively, a building-block approach is used in which each of the significant activities of the AI is assessed with respect to the level of each of the inherent risks and the risk management systems in place to manage these risks.
- 1.4.9 The objective of the risk assessment exercise is to develop a comprehensive risk profile, which captures all the eight types of inherent risks of the AI. Subsection 1.5 below describes the risk assessment process in more detail.
- 1.4.10 The risk profile is used to complete the third and fourth steps in the risk-based methodology, which are Planning the Supervisory Work and Defining Examination Activities. The document to be prepared for these two steps is the Planning and Scope Memorandum. The HKMA will try to customise examination tasks so that they are consistent with the complexity and risk profile of the AI.
- 1.4.11 The emphasis of the risk-focused examination to be performed in step five is on evaluating the effectiveness of the risk management system of the AI for each type of inherent risks. At the conclusion of the on-site examination, as previously indicated in para. 1.3.6, a risk management rating is assigned by the on-site manager and factored into the management component of the CAMEL rating. The risk management rating may also affect the rating for one or more of the other CAMEL



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components. A report of examination will then be produced in this step to capture the examination findings and results from the review of the CAMEL rating.

1.4.12 As the risk-based supervisory methodology revolves around a process of continuing off-site supervision, the Institutional Overview produced in step one will be constantly updated throughout the year in step six, making it a dynamic document which always reflects the most current position of the AI.

### 1.5 Risk assessment

1.5.1 The development of a formal risk assessment process represents an important addition to the HKMA's supervisory approach. The purpose of this risk assessment undertaking is, as indicated earlier, to identify the type, level and direction of all significant risks of an AI. The process consists of determining the level of risk in each of the eight inherent risks by business activity, the direction of risk, the adequacy of existing risk management systems and the impact, if any, of external risk factors. It concludes with a composite risk level for each business activity and an overall risk profile for the AI.

1.5.2 The level of inherent risk is defined as the probability and degree of potential loss due to an adverse event or action within a particular activity or product without regard to the adequacy and quality of the relevant risk management system in place. Ascertaining the level of inherent risk is a judgement call after assessing and weighing all the factors and evaluation criteria for each of the inherent risks. For example, if the asset quality of the loan portfolio being assessed has deteriorated to a less than satisfactory rating with a high level of classified credits, the level of inherent credit risk will probably be rated as high.

1.5.3 The adequacy of risk management systems is determined by evaluating the four elements of a sound risk management system as follows:

- active Board and senior management oversight;



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- effective organisational policies, procedures and limits for managing business activities;
- adequate risk measurement, monitoring and management reporting systems; and
- comprehensive internal controls, including an effective internal audit function.

1.5.4 The following eight inherent risks which have been identified by the HKMA are to be assessed during this process:

- credit;
- market;
- interest rate;
- liquidity;
- operational;
- legal;
- reputation; and
- strategic.



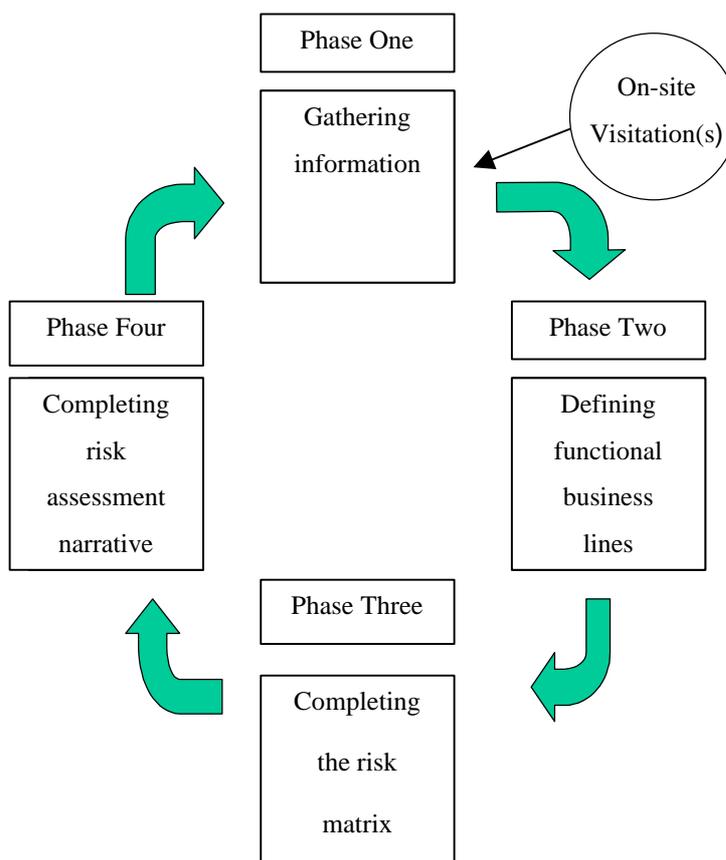
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1.5.5 The risk assessment exercise consists of four phases as shown in the following diagram:



1.5.6 In phase one, sufficient information must be gathered to understand fully the business activities and risk management systems of the AI. This is often accomplished by conducting one or more on-site visitations to the AI to obtain the required information or to clarify information already received.

1.5.7 In phase two, functional business lines and the relative significance of activities are properly identified. In identifying functional businesses, the HKMA will adopt as far as possible the AI's own classification of its different businesses, since the internal management information reports are likely to be compiled on the same basis. Use of the AI's own classification will usually facilitate the HKMA's analysis and assessment.



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- 1.5.8 There are four steps involved in phase three. The initial step is to identify the level of inherent risk by functional activity for each of the eight inherent risks. The level of inherent risk, which is a judgement call by the case officer, can be assessed as "high", "moderate" or "low". Qualitative as well as quantitative factors will be considered for each functional activity in arriving at the judgement. Generally speaking, based on the statistical theory of probability, moderate inherent risk exists when there is an average probability or chance of an adverse impact on an AI's capital or earnings due to exposure and uncertainty from potential future events within the functional activity. An assessment of high inherent risk would reflect a higher than average probability of potential loss and an assessment of low inherent risk would reflect a lower than average probability. In arriving at the level of inherent risk, the degree of potential loss in relation to earnings and capital must also be considered and factored into the decision. High inherent risk could reasonably be expected to result in a significant and harmful loss to the AI. Moderate inherent risk could reasonably be expected to result in a loss, which could be absorbed by the AI in the normal course of business and low inherent risk could reasonably be expected to result in little or no loss to the AI. In assessing inherent risk, the direction of risk in the next 12 months, including the risk in any new products, must also be considered.
- 1.5.9 The second step is to evaluate by functional activity the risk management systems in place to manage the inherent risks. The risk management systems will be assessed as "strong", "acceptable" or "weak" in the areas of management oversight, policies and procedures, risk measurement and internal controls, as mentioned earlier.
- 1.5.10 The third step in phase three is to classify the composite risk profile for each of the significant business activities as "low", "moderate" or "high". This is a summary judgement arrived at by balancing the level of inherent risks of the business activity, the adequacy of the risk



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management systems for the activity and the direction of risk.

- 1.5.11 The direction of risk is required so that the assessment of risk reflects a forward as well as current view of the composite risk profile of an AI for a particular activity. For this purpose, the direction of risk is classified as “increasing”, “stable” or “decreasing”.
- 1.5.12 This means, for example, that if credit risk is the most significant risk for a particular activity conducted by an AI and it is increasing, that may prompt the HKMA to increase the composite risk profile for the activity in question (i.e. from “moderate” to “high”). If, however, the direction of credit risk is either stable or declining, it may not alter the composite risk profile for the activity concerned.
- 1.5.13 Since, however, the risk assessment process includes many judgemental considerations, it is also possible for the composite risk profile for an activity to be lowered under the same scenario of a stable or declining credit risk environment after taking into account other relevant factors. A risk profile matrix, which serves as a guide for ascertaining the composite risk profile for each significant activity and the appropriate supervisory response is set out below:



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**Risk profile matrix<sup>2</sup>**

		RISK MANAGEMENT SYSTEMS		
		STRONG	ACCEPTABLE	WEAK
INHERENT RISK	HIGH	Moderate to high aggregate risk Limited review	High aggregate risk Limited review	High aggregate risk Full-scope review required
	MODERATE	Low to moderate aggregate risk Limited or no review required	Moderate aggregate risk Limited review	Moderate aggregate risk Full-scope review required
	LOW	Low aggregate risk No review required	Low aggregate risk No review required	Low aggregate risk Limited review

1.5.14 The final step in phase three is to develop a risk matrix summary, which shows the composite risk profile and direction of risk by each type of inherent risk across all business activities. The composite risk profile by inherent risk is arrived at by balancing the level of inherent risk with the quality of risk management systems and the direction of risk. The risk matrix summary also reflects an overall risk profile and direction of risk for the AI.

1.5.15 Phase four of the risk assessment process requires the completion of a risk assessment narrative document, which is an integral part of the entire risk-based supervisory methodology. The narrative shows the overall level of risk by inherent risk category and direction. It also analyses the business activities within each of the risk categories and evaluates qualitatively management's effectiveness in managing and controlling the risks. The document also identifies key issues that

<sup>2</sup> To be applied to each significant business activity of the AI



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may affect the risk profile and contains details of the type and level of activity that was assessed. The risk assessment narrative is used to assist in determining the risk-focused examination scope.

- 1.5.16 The goal of the risk assessment narrative is to develop an overall risk profile of an AI and provide the background to how the overall risk profile for the AI has been derived. The narrative should include a discussion of the AI's key risks, describe and assess how the AI manages the risks, detail the level and trend of the risks, document the areas of supervisory concern and provide an overall assessment of the organisation.
- 1.5.17 The risk assessment narrative will also include a discussion of the AI's risk management rating, which is assigned at the conclusion of the risk-focused on-site examination. As previously indicated, the risk management rating is factored into the CAMEL rating of the AI. The narrative document will also include comments on the consolidated risk management system and the internal and external audit function.



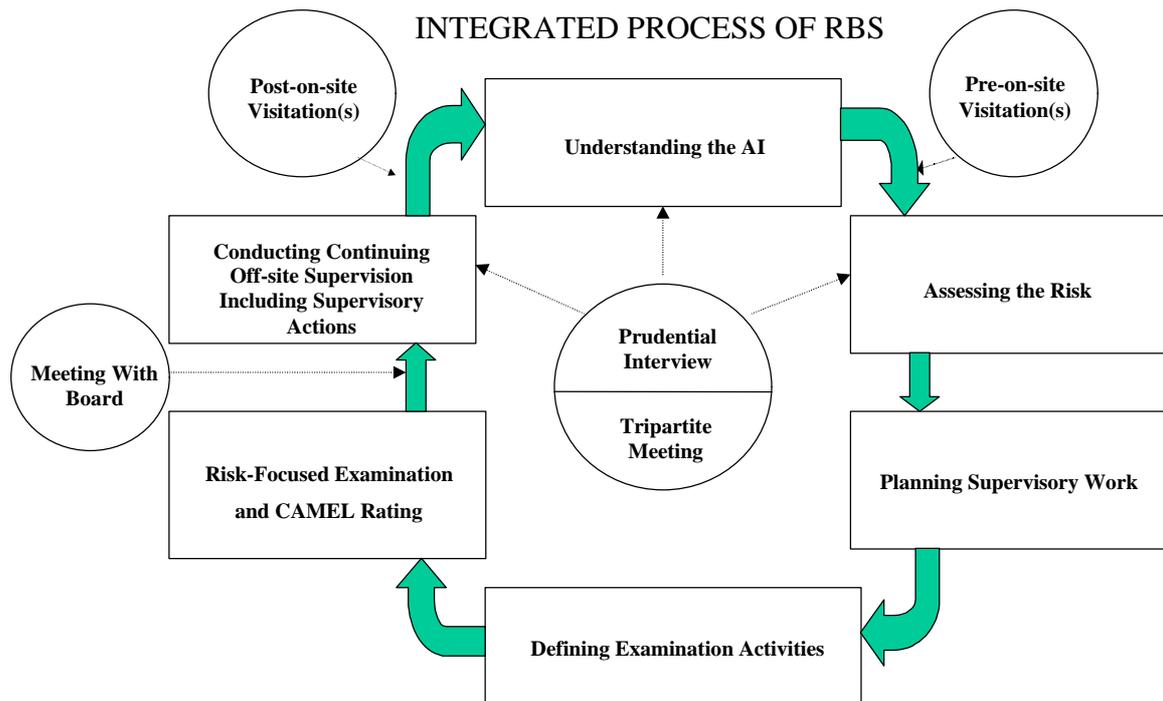
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### 1.6 Supervisory process



1.6.1 The diagram above shows how the risk-based supervisory methodology has been integrated into the HKMA's overall supervisory process in a way that provides an enhanced level of continuous supervision. The risk-based approach, which by design is circular and conducted on as current a basis as possible in a continuing cycle, is complemented and strengthened by on-site visitations, prudential interviews, annual tripartite meetings and annual supervisory meetings with the Board of Directors of locally incorporated banks.

1.6.2 On-site visitations to AIs may be conducted at any phase of the cycle but are more likely to take place during the updating of the risk assessment process prior to the start of, or subsequent to, the on-site examination. The



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purpose of the "pre-on-site" visitation is usually to obtain a current picture of recent developments, which may have an effect on the risk profile of the AI, such as the introduction of new products or any significant changes in the risk management systems. Also during the pre-on-site visitation, case officers are required to perform an assessment of the internal audit function of an AI. The assessment includes a review of the internal audit's independence and performance. The results of the assessment will be used to decide the scope for the risk-focused on-site examination. If the internal audit function is acceptable and meets the HKMA's standards, the HKMA will be able to place more reliance on its work and the scope for the on-site examination can be suitably reduced. The "post-on-site" visitation is usually conducted to follow up on the status of any significant examination findings or supervisory actions instituted.

- 1.6.3 As part of the continuous supervisory process, an annual prudential meeting is held with the senior management of an AI. The HKMA attaches great importance to this regular dialogue as it enables the supervisory officials to understand better how senior management views and controls the AI's risks and how it views the current business situation and future prospects. The meeting also provides the supervisors with an opportunity to clarify specific issues and discuss prudential concerns which have arisen during any phase of the cycle.
- 1.6.4 For AIs belonging to a banking group, prudential meetings may be held both at group level and with individual AIs of the group. In addition, the HKMA may hold discussions with overseas head offices of foreign banks, either through HKMA staff calling on them or during their visits to Hong Kong.
- 1.6.5 Annual tripartite meetings are held with AIs and their external auditors, normally following the completion of the annual audit. Matters discussed typically include any issues arising out of the audit such as weaknesses identified in internal controls, the adequacy of provisions and compliance with prudential standards and the various requirements of the Banking Ordinance. The



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HKMA will also wish to see the auditors' management letter to the AI and discuss any matters of prudential concern contained in the letter.

- 1.6.6 As a further enhancement to the continuous supervisory approach, the HKMA will hold an annual meeting with the Board of Directors of each locally-incorporated bank. This meeting will generally be conducted after the completion of the risk-focused on-site examination and updating of the composite CAMEL rating of the AI. The purpose of this meeting is generally to discuss the examination findings, particularly any significant deficiencies in the risk management systems or any other matters of prudential concern. The meeting can also be a forum for the Board members and the supervisory officials to discuss any matters of mutual interest.

### 1.7 Primary prudential obligations of an AI

- 1.7.1 AIs are expected to have in place a comprehensive risk management system to identify, measure, monitor and control the various types of risks within all of their activities and, where appropriate, to hold capital against these risks. AIs should have adequate policies, procedures, limits and controls to manage the eight types of inherent risk identified by the HKMA and any other risks which have been identified by the AI itself. Specialised board committees such as the audit committee, the risk management committee or the asset and liability management committee have a useful role to play in reviewing the adequacy of the risk management system and the extent of the overall effectiveness of it. AIs should ensure that the four elements of a sound risk management system are met (see para. 1.5.3).
- 1.7.2 The HKMA has issued various guidelines and guidance notes to the industry, which represent either minimum standards or in some cases best practices to be adopted by AIs. These guidelines and guidance notes can be found in the HKMA's Supervisory Policy Manual. AIs are expected to have systems and procedures in place to



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ensure compliance with these guidelines and guidance notes as appropriate.

## 2. The eight types of inherent risk

### 2.1 Credit risk

2.1.1 This is the risk that a borrower or counterparty may fail to fulfill an obligation. The assessment of credit risk involves evaluating both the probability of default by the counterparty, obligor or issuer and the exposure or financial impact on the AI in the event of default.

### 2.2 Market risk

2.2.1 This is the risk to an AI's financial condition resulting from adverse movements in market rates or prices such as foreign exchange rates, commodity or equity prices. The primary determinant of the inherent market risk of a business line is the volatility of the relevant markets. In assessing inherent market risk one must consider, however, the interaction between market volatility and business strategy. A trading strategy that focuses exclusively on intermediation between end-users will tend to result in less market risk than a purely proprietary strategy.

### 2.3 Interest rate risk

2.3.1 This is the risk to an AI's financial condition resulting from adverse movements in interest rates. In determining the levels of interest rate risk, assessments are made of the levels of repricing risk, basis risk, options risk and yield curve risk. In addition, evaluations are made of the funding strategy with respect to interest rate movements and the impact of the overall business strategy on interest rate risk.

### 2.4 Liquidity risk

2.4.1 This is the risk that an AI may be unable to meet its obligations as they fall due. This may be caused by "funding liquidity risk", i.e. the AI's inability to liquidate assets or to obtain funding to meet its obligations. The



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problem could also be caused by "market liquidity risk", where the AI cannot easily unwind or offset specific exposures without lowering market prices significantly because of inadequate market depth or market disruptions.

### 2.5 Operational risk

2.5.1 This is the risk of direct or indirect loss resulting from inadequate or failed internal processes, staff and systems or from external events.

2.5.2 The evaluation of operational risk involves an assessment of both product and AI-specific factors. The relevant product factors include the maturity of the product in the market, the need for significant fund movements, the impact of a breakdown in segregation of duties and the level of complexity and innovation in the market place. AI-specific factors, which can significantly increase or decrease the basic level of operational risk, include the quality of the audit function and programme, the volume of transactions in relation to systems development and capacity, the complexity of the processing environment and the level of manual intervention required to process transactions.

### 2.6 Reputation risk

2.6.1 This is the potential that negative publicity regarding an AI's business practices, whether true or not, will cause a decline in the customer base or lead to costly litigation or revenue reductions. Market rumours or public perceptions are significant factors in determining the level of risk in this category.

### 2.7 Legal risk

2.7.1 This is the risk arising from the potential that unenforceable contracts, lawsuits or adverse judgments may disrupt or otherwise negatively affect the operations or financial condition of an AI.

### 2.8 Strategic risk



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2.8.1 This is the risk of current and prospective impacts on earnings, capital, reputation or standing arising from poor business decisions, improper implementation of decisions or lack of response to industry, economic or technological changes. This risk is a function of the compatibility of an organisation's strategic goals, the business strategies developed to achieve these goals, the resources deployed to meet these goals and the quality of implementation.

### 3. Four elements of a sound risk management system

#### 3.1 Summary

3.1.1 While risk management systems vary among Als, there are four basic elements contributing to a sound risk management environment.

- active Board and senior management oversight;
- organisational policies, procedures and limits that have been developed and implemented to manage business activities effectively;
- adequate risk measurement, monitoring and management information systems that are in place to support all business activities; and
- established internal controls and the performance of comprehensive audits to detect any deficiencies in the internal control environment in a timely fashion.

3.1.2 These are discussed in turn below.

#### 3.2 Board and senior management oversight

3.2.1 The quality of Board and senior management oversight is evaluated in relation to the following elements:

- whether the Board and senior management have identified and have a clear understanding of the types of risk inherent in business lines and whether they have taken appropriate steps to ensure continued awareness of any changes in the levels of risk;



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- whether the Board and senior management have been actively involved in the development and approval of policies to limit the risks, consistent with the AI's risk appetite;
- whether the Board and senior management are knowledgeable about the methods available to measure risks for various activities;
- whether the Board and senior management carefully evaluate all the risks associated with new activities and ensure that the proper infrastructure and internal controls are in place; and
- whether the Board and senior management have provided adequate staffing for the activity and designated staff with appropriate credentials to supervise the activity.

### 3.3 Policies, procedures and limit structure

3.3.1 The following key factors are to be considered in evaluating the adequacy of policies, procedures and limits:

- whether policies, procedures and limits are properly documented, drawn up after careful consideration of the risks associated with the activity and reviewed and approved by management at the appropriate level;
- whether policies assign full accountability and clear lines of authority for each activity and product area; and
- whether compliance monitoring procedures have been developed. These procedures should include internal compliance checks for adherence to all policies, procedures and limits by an independent function within an AI such as an internal control unit.

### 3.4 Risk measurement, monitoring and management reporting systems



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- 3.4.1 Effective risk monitoring requires AIs to identify and measure all quantifiable and material risk factors. Consequently, risk monitoring activities must be supported by information systems that provide the management with timely and accurate reports on the financial condition, operating performance and risk exposure of the AI.
- 3.4.2 Management information systems should provide regular and sufficiently detailed reports for line managers engaged in the day-to-day management of the AI's business activities.
- 3.4.3 All AIs are expected to have risk monitoring and management information systems that provide senior management with a clear understanding of the AI's positions and risk exposures.
- 3.4.4 The following factors should be considered in assessing the effectiveness of the risk measurement, monitoring and management reporting systems:
- the adequacy, on a historical basis, of the risk monitoring practices and reports addressing all material risks of the organisation;
  - the adequacy and appropriateness of the key assumptions, data sources and procedures used to measure and monitor risk, including the adequacy of analysis, documentation and reliability testing of the system on a continuing basis;
  - any material changes in the AI's lines of business or products that might require changes in the measuring and monitoring systems;
  - any changes in the information technology or management information system environment that have significantly changed the production process for reports or the assumptions on which reports are based;
  - how consistently management information reports and other forms of communication monitor all



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meaningful exposures, check compliance with established limits, goals or objectives and compare actual with expected performance; and

- the adequacy, accuracy and timeliness of reports to the Board and senior management and whether such reports contain sufficient information for them to identify any adverse trends and to evaluate the level of risks fully.

### 3.5 Internal controls and comprehensive audits

3.5.1 A critical element of an AI's ability to operate in a safe and sound manner and to maintain an acceptable risk management system is the adequacy of its internal control environment. Establishing and maintaining an effective system of controls, including the enforcement of official lines of authority and the appropriate segregation of duties, is one of management's most important responsibilities. Serious lapses or deficiencies in internal controls such as inadequate segregation of duties may warrant supervisory action.

3.5.2 When properly structured, a system of internal controls promotes effective operations, provides for reliable financial reporting, safeguards assets and helps to ensure compliance with relevant laws, regulations and internal policies. An independent internal auditor should test internal controls and the results of these audits, including management's response to the findings, should be properly documented.

3.5.3 The following factors should be considered in evaluating the adequacy of the internal control environment:

- the appropriateness of the system of internal controls in relation to the type and level of risks posed by the nature and scope of the AI's business activities and products;
- whether the AI's organisation structure establishes adequately clear lines of authority and responsibility for monitoring compliance with policies, procedures and limits;



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- whether reporting lines provide for sufficient independence of the control functions from the business areas, as well as adequate segregation of duties throughout the organisation (such as those relating to trading, custodial and back-office operations or loan origination, marketing and processing);
- whether the official organisational structure reflects actual operating practices;
- the reliability, accuracy and timeliness of all financial, operational and regulatory reports;
- the adequacy of procedures for ensuring compliance with applicable laws, regulations and internal policies and procedures;
- the effectiveness, independence and objectivity of internal audit or other control and review procedures in providing adequate coverage of the AI's operations;
- whether internal controls and information systems are adequately tested and reviewed;
- whether the coverage, procedures, findings and management responses to audits are adequately documented; and
- whether identified material weaknesses are given appropriate and timely high-level attention and management's actions to correct material deficiencies are objectively verified and reviewed.

## 4. Rating risk management

### 4.1 Factors considered

4.1.1. The following factors will be considered in assigning a rating to the overall risk management system at the conclusion of the risk-focused on-site examination:

- the extent to which an AI is able to manage all the risks inherent in its lending, trading, treasury and



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other major activities and in particular its ability to identify, measure, monitor and control these risks;

- the soundness of the qualitative and quantitative assumptions implicit in the risk management system;
- whether risk policies, guidelines and limits at the AI are appropriate and consistent with its lending, trading and other activities, management experience level and overall financial strength;
- whether the management information system and other forms of communication are consistent with the level of business activity and complexity of products offered at the AI and provide sufficient support to monitor risk exposure and compliance with established limits accurately; and
- the ability of management to recognise and accommodate new risks that may arise from the changing environment and to identify and address risks not readily quantified in a risk management system.

4.1.2 For example, in the lending area, an AI would be expected to have qualified and experienced lending officers, an effective credit approval and review function and, where appropriate, a credit work-out function. The lending area should also have a credit risk evaluation system that is capable of assessing adherence to credit risk lending limits, lending guidelines, portfolio policies and underwriting standards. In addition, the credit area should have a system that identifies existing and potential problem credits, the adequacy of provisioning and a method for assessing the likely impact of those credits on current and future profits. Procedures should also be in place for assessing the impact to the portfolio brought by specific or general changes in the business climate.

## 4.2 Rating scale and integration into CAMEL rating



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- 4.2.1 The rating for risk management, which is assigned by the on-site manager at the conclusion of the on-site risk-focused examination, is based on a scale of one to five in ascending order of supervisory concern. This rating is assigned to reflect findings within the four elements of sound risk management as outlined in section 3. The risk management rating will be factored into the management component of the CAMEL rating for the AI. It may also influence the rating for one or more of the other CAMEL components. This concept adds a new dimension to the traditional methodology for assessing the CAMEL components and by extension could affect the composite CAMEL rating. The following indicates what this process entails.
- 4.2.2 The overall risk management rating is incorporated and heavily weighted in relation to the other factors included in the analysis for assessing and rating the management component of CAMEL. If the risk management rating is "3" the management component of the CAMEL cannot usually be better than "3".
- 4.2.3 As to how the risk management rating can affect other components of the CAMEL, it is necessary to consider the factors which in the above example led to an overall risk management rating of "3". If serious deficiencies were found in the credit risk management process, it may be necessary to rate the asset quality component as "3" notwithstanding that the quantitative indicators for portfolio quality may support a "2" rating.
- 4.2.4 Since the risk-based approach views the financial condition of an AI from a forward perspective, the CAMEL rating must also reflect this view, whereas the traditional methodology only captured the current position.

### 4.3 Definitions of risk management ratings

1	Management effectively identifies and controls all major types of risk posed by the AI's activities, including those from new products and changing market conditions. The Board and management are
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	<p>active participants in managing risk and ensure that appropriate policies and limits exist. The Board understands, reviews and approves them. Policies and limits are supported by risk monitoring procedures, reports and management information systems that provide management and the Board with the necessary information and analysis to make timely and appropriate responses to changing conditions.</p> <p>Internal controls and audit procedures are sufficiently comprehensive and appropriate to the size and activities of the AI. There are few noted exceptions to the AI's established policies and procedures and none is material. Management effectively and accurately monitors the condition of the AI consistent with standards of safety and soundness and in accordance with internal and supervisory policies and practices. Risk management is considered fully effective to identify, measure, monitor and control risks to the AI.</p>
2	<p>The AI's management of risk is largely effective but lacking to some modest degree. It reflects a responsiveness and ability to cope successfully with existing and foreseeable exposures that may arise in carrying out the AI's business plan. While the AI may have some minor risk management weaknesses, these problems have been recognised and are being addressed. Overall, Board and senior management oversight, policies and limits, risk monitoring procedures, reports and management information systems are considered satisfactory and effective in maintaining a safe and sound environment. Generally, risks are being controlled in a manner that does not require additional or more than normal supervisory attention.</p> <p>Internal controls may display modest weaknesses or deficiencies but they are correctable in the normal course of business. The on-site team may have recommendations for improvement but the weaknesses noted should not have a significant effect on the safety and soundness of the AI.</p>



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3	<p>Risk management practices are lacking in some important ways and are therefore a cause for more than normal supervisory concern. One or more of the four elements of sound risk management are considered less than satisfactory and have precluded the AI from addressing fully a significant risk to its operations. Certain risk management practices are in need of improvement to ensure that management and the Board are able to identify, monitor and control adequately all significant risks to the AI. Weaknesses may include continued control exceptions or failures to adhere to written policies and procedures that could have adverse effects on the AI.</p> <p>The internal control system may be lacking in some important respects, particularly as indicated by continued control exceptions or by failure to adhere to written policies and procedures. The risks associated with the internal control system could have adverse effects on the safety and soundness of the AI if corrective actions are not taken by management.</p>
4	<p>Indicates marginal risk management practices that generally fail to identify, monitor and control significant risk exposures in numerous material respects. Generally, such a situation reflects a lack of adequate guidance and supervision by management and the Board. One or more of the four elements of sound risk management are considered marginal and require immediate and concerted corrective action by the Board and management. A number of significant risks to the AI have not been adequately addressed and the risk management deficiencies warrant a high degree of supervisory attention.</p> <p>The AI may have serious identified weaknesses, such as inadequate separation of duties, that require substantial improvement in its internal control or accounting procedures or in its ability to adhere to supervisory standards or requirements. Unless properly addressed, these conditions may result in unreliable financial records, reports or operating</p>



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	losses that could seriously affect the safety and soundness of the AI.
5	<p>Indicates a critical absence of effective risk management practices to identify, monitor or control significant risk exposures. One or more of the four elements of sound risk management are considered wholly deficient and management and the Board has not demonstrated the capability to address deficiencies.</p> <p>Internal controls may be sufficiently weak as to jeopardise seriously the continued viability of the AI. If not already evident, there is an immediate concern as to the reliability of accounting records and regulatory reports and about potential losses that could result if corrective measures are not taken immediately. Deficiencies in the risk management procedures and internal controls at the AI require immediate and close supervisory attention.</p>

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