HONG KONG MONETARY AUTHORITY
香港金融管理局

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7 March 2014

The Chief Executive
All Authorized Institutions

Dear Sir / Madam,

Foreign Exchange Accumulators[1] ("FX accumulators") and Non-leveraged Renminbi ("RMB")-Linked Deposits

I am writing to provide guidance and clarification on the regulatory requirements governing the sale of FX accumulators and non-leveraged RMB-linked deposits by Authorized Institutions ("AIs"), in particular the:

- framework for assessing customers' expected exposure to FX accumulators;
- treatment of FX accumulators for hedging purpose;
- sale of FX accumulators to corporate customers;
- classification of FX accumulators; and
- risk disclosure for roll-over and repeated placement of non-leveraged RMB-linked deposits.

(I) Framework for assessing customers' expected exposure to FX accumulators

The Hong Kong Monetary Authority ("HKMA") in its circular of 22 December 2010 entitled "Selling of Accumulators" (the "circular") set out the regulatory standard for the calculation of asset concentration in accumulators. This required taking into account a customer's total maximum exposure, i.e. using the full notional amount (regardless of the currencies involved) for assessment of the customer's exposure to FX accumulators.

In view of the link between the Hong Kong dollar ("HKD") and the US dollar ("USD") as well as relatively low volatility of HKD and USD against eight other major currencies[2], after consultation with the Hong Kong Association of Banks ("HKAB") and the DTC Association ("DTCA"), the HKMA has decided to allow AIs to use a flexible approach in the calculation

[1] Accumulators in the circular also include decumulators, and products of a similar nature by whatever name they may be called.

[2] Eight other major currencies refer to Euro, UK Pound Sterling, Australian dollar, New Zealand dollar, Canadian dollar, Swiss Franc, Japanese Yen, and Renminbi (both CNY and CNH).

of asset concentration for FX accumulators involving major currency pairs. A new framework, set out in **Annex 1**, for measuring the expected exposure to FX accumulators in major currency pairs has been developed for this purpose. In coming up with this framework, applicable to all customers, the HKMA has considered the price volatility data of the major currency pairs over a ten-year period. AIs which are not yet ready to use the flexible approach should continue to use the existing full notional approach in their suitability assessment.

(II) Treatment of FX accumulators for hedging purpose

The overarching principle is that only the properly hedged amount of a customer's exposure in a FX accumulator contract is exempted from inclusion in the calculation of concentration risk.

(II)(A) Treatment of FX accumulators for hedging existing FX exposure

If a customer already holds a long position in FX product(s) or anticipates some FX cash flows and intends to enter into a FX accumulator contract to hedge against such existing FX exposure, it is permissible not to include the relevant amount of such FX accumulator contract in the calculation of concentration risk. However, as stated in the circular, AIs should put in place proper procedures to establish whether an accumulator is indeed a suitable hedging instrument and if so, whether the maximum exposure in such FX accumulator contract is appropriate. For example, if the maximum exposure associated with the FX accumulator contract is materially higher than the original long position or anticipated cash-flows in a particular foreign currency, there will be over-exposure which should be included in the calculation of concentration risk. Further, whenever an AI becomes aware of changes in a customer's circumstances such that a transaction in FX accumulator contract no longer serves as a hedge (e.g. the risk exposure to be hedged no longer exists) and becomes an investment, the AI should, as soon as practicable, review the customer's position, draw to the customer's attention the fact that customer has an exposure to the FX accumulator, and take or recommend appropriate actions to address the situation.

(II)(B) Treatment of FX accumulators other than for hedging existing FX exposure

If a FX accumulator contract is entered into other than for hedging a customer's existing FX exposure, AIs should observe all relevant regulatory requirements, including the requirements for assessing the customer's concentration risk and the minimum expected exposure percentage for FX accumulators. For the avoidance of doubt, a FX accumulator contract will not be regarded as being entered into for hedging purposes if the customer enters into the FX accumulator contract first and subsequently takes up other FX product(s).

In the circular it is stipulated that AIs should refrain from soliciting or recommending accumulator contracts to customers who already have a high concentration in such contracts or in the specific underlying asset. Accordingly, AIs should set specific threshold(s) for FX accumulators as an investment product in determining concentration risk. Since FX accumulators are of high risk, the exposure in FX accumulators should not be netted out by other FX products when considering asset concentration on a product level. In this connection, the HKMA notes that perfect hedge for FX accumulators is uncommon given the costs involved especially as each product has its particular terms, tenor, strike price, etc.

Nevertheless, the HKMA does not rule out the possibility that in exceptional circumstances, some customers may have genuine need to use other FX products to hedge certain existing FX accumulator contracts (e.g. if the cost of unwinding the existing FX accumulator contracts is higher than the cost of hedging). AIs should have strong justifications and proper documentation to support such claim, including but not limited to: thorough analysis of all relevant terms and structure of the existing FX accumulators and the other FX product for hedging and critical review of the proposed arrangement of hedging against existing FX accumulator contracts, to demonstrate genuine hedging. In which case, the properly hedged amount of the FX accumulator contracts may be excluded from the calculation of concentration risk.

(III) Sale of FX accumulators to corporate banking customers

Having regard to the difference in the risks of FX products as compared with equities and the nature of corporate banking customers, it is considered reasonable to allow more flexibility in respect of the sale of FX accumulators to corporate banking[3] customers.

(III)(A) FX accumulators used as a hedging tool for corporate customers are exempted from the following requirements[4]:

(a) only selling to customers with experience in investing in structured investment products or writing options;

(b) only selling to professional investors as defined in Part 1 of Schedule 1 to the Securities and Futures Ordinance ("SFO");

(c) providing customers with reasonable alternative investment products with lower risks and / or less complex structure for addressing their investment needs;

(d) providing strong justification and conducting review by a senior officer and / or an independent internal control unit other than a credit control unit for any mismatch transactions;

(e) refraining from making any solicitation or recommendation of accumulator contracts to customers who already have high concentration in accumulator contracts (taking into account the customers' total maximum exposure as well as their ability to withstand loss and fulfil potential margin obligations under adverse market conditions) or in the specific underlying asset;

(f) making available and encouraging customers who are interested in investing in accumulators to read the inSight article entitled "Buy at a discount?" issued by the HKMA on 28 September 2011;

(g) recording the rationale for investing in accumulators rather than suitable alternative investment products with lower risk and / or less complex structure

[3] Corporate banks are AIs which operate as corporate banks or have dedicated corporate banking units.

[4] Requirements (a) to (e) are stated in the HKMA's circular "Selling of Accumulators" of 22 December 2010. Requirements (f) and (g) are stated in the HKMA's circular "Rationale for Selling of Accumulators" of 31 October 2011.

(if any) given the risk return profile of accumulators and the customer's circumstances; and obtaining the customer's acknowledgement (audio or written) of the investment rationale and maintaining a proper audit trail; and

(h) the last section of the HKMA's circular "Selling of Investment Products to Private Banking Customers" of 12 June 2012 concerning "Selling of Accumulators".

However, where there is over hedging (e.g. investment amount is materially in excess of the risk exposure, or investment tenor is longer than the tenor of the risk to be hedged), such transactions in FX accumulator contract are not exempted. Further, whenever a corporate bank becomes aware of changes in a customer's circumstances such that a transaction no longer serves a hedging purpose (e.g. the risk exposure no longer exists) and becomes an investment, the corporate bank should, as soon as practicable, review the customer's position, draw to the customer's attention the fact that customer has an exposure to the FX accumulator, and take or recommend appropriate actions to address the situation.

The above exemptions only apply to accumulators linked to FX but not other underlying assets.

(III)(B) For non-hedging transactions of FX accumulators by "large / sophisticated" corporate customers[5], corporate banks are exempted from adopting the enhanced measures specified in (III)(A) above, except item (e) which is exempted only for hedging transactions for corporate customers. For non-hedging transactions involving other corporate customers, corporate banks should continue to observe the HKMA's additional measures concerning the sale of accumulators.

(III)(C) No exemption is granted in respect of product risk rating and the Securities and Futures Commission's standards. Consequently, the HKMA continues to expect AIs in general to assign the highest risk rating to accumulators and to follow similar standards as those applicable to SFO-regulated investment products, in selling FX accumulators.

The exemptions and expectations set out in section (III) above have been disseminated to AIs through the assistance of HKAB and DTCA in January 2013.

(IV) Classification of FX accumulators

In determining whether a product is classified as an accumulator, AIs should make reference to the product features mentioned in the HKMA's circulars on accumulators and the inSight

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[5] As set out in the circular "Applicability of Enhanced Measures to Sale of Investment Products to Corporate Customers" of 20 December 2012, a corporate customer may be classified as "large / sophisticated" corporate customer if it is a:
(i) company listed on any stock exchange;
(ii) corporate entity, public body, tertiary institution, registered charitable organization or other legal entity having a dedicated / specialised investment function;
(iii) trust;
(iv) person falling under any of the paragraphs (a) to (i) of the definition of "professional investor" in Part 1 of Schedule 1 to the Securities and Futures Ordinance;
(v) professional partnership in a designated field (law, accounting, taxation, actuary or finance); or
(vi) group entity (including holding company, subsidiary and associated company) of any of (i) to (v) above.

article “Buy at a discount?” issued on 28 September 2011. While the product structures and features keep evolving, and there may not be a single definition that can fit all types of FX accumulators, the following paragraph provides general guidance but AIs should exercise professional judgment to reasonably classify accumulators for the purpose of complying with the relevant circulars.

> *“FX accumulators/ decumulators, in general, are FX structured products which consist of a series of options/ forwards within a single contract where customers, when writing the options or entering into the forwards, are obliged to purchase/ sell a fixed sum of foreign currency/ currencies at a predetermined strike price periodically, within a specified period. The upside is “capped” (e.g. gain amount is capped, number of settlements with positive returns is limited when compared with those for losses, with knock-out features etc). FX accumulators/ decumulators, for the purpose of determining the applicability of the relevant regulatory requirements as stipulated in the HKMA circulars of 22 December 2010, 31 October 2011, 12 June 2012 and this circular, may or may not have knock-out features or a multiplier.”*

For illustration purposes, an example of a FX structured product that should be classified as an accumulator according to the above guidance is provided in **Annex 2**.

(V) Risk disclosure for roll-over and repeated placement of non-leveraged RMB-linked deposits

According to the HKMA’s circular entitled “Selling of Investment Products” of 13 July 2009, operational flexibility is allowed in complying with the risk disclosure requirements for roll-over and repeated placement of non-leveraged FX-linked deposits in major currencies[6]. After considering recent market developments, the HKMA has decided to extend such flexibility in terms of risk disclosure to non-leveraged RMB-linked deposits. However, such flexibility does not discharge AIs from the obligation to ensure the suitability of the product for the customer in each transaction.

AIs should put in place adequate controls to ensure compliance with applicable regulatory requirements.

If you have any questions on this circular, please contact Mr Andy Lam on 2878-8790 or Ms Anita Chan on 2878-1538.

Yours faithfully,

Meena Datwani
Executive Director (Banking Conduct)

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[6] For the purpose of the circular of “Selling of Investment Products” of 13 July 2009, major currencies refer to US dollar, Euro, UK Pound Sterling, Australian dollar, New Zealand dollar, Canadian dollar, Swiss Franc, and Japanese Yen.

Encl.

c.c. Securities and Futures Commission (Attn: Mr James Shipton, Executive Director of Intermediaries Division)

Annex 1

Framework for AIs' assessment of customers' expected exposure to FX accumulators

Currency pair	Minimum expected exposure percentage	
	For AIs which have methodologies satisfying the conditions	**For AIs that do not have relevant methodologies**
USDHKD (pegged currency pair)	2%	
HKD or USD against one of eight other major currencies (see Note 1)	40%	100%
Other currency pairs	100%	

Note 1: Eight other major currencies refer to Euro, UK Pound Sterling, Australian dollar, New Zealand dollar, Canadian dollar, Swiss Franc, Japanese Yen, and Renminbi (both CNY and CNH). There are a total of 19 combinations of currency pairs. The expected exposure measurement of asset concentration should only be applied to FX Accumulators involving HK dollar or US dollar as at least one leg of the currency pair.

Three Scenarios of Currency Pair:

I. For currency pair of USDHKD: 2%

Since US dollar and HK dollar are linked, the minimum expected exposure percentage is to be set at 2% of the notional amount for USDHKD FX Accumulators.

II. For currency pair involving either HKD or USD against one of eight other major currencies: 40%

For AIs which have reasonable methodologies and adequate controls (that **satisfy all the pre-conditions** as set out below) in place for calculating the expected loss of their FX Accumulators offered to customers, they may use their methodologies to calculate the "expected exposure" (subject to a minimum of 40% of the notional amount) in assessing customers' asset concentration.

For the avoidance of doubt, exposure in measuring concentration risk of FX Accumulators, after applying the expected exposure percentage, will be:

Maximum of the 2 figures: (Notional per fixing x Minimum Expected Exposure Percentage x number of fixings x gearing multiplier (if any)) and expected exposure calculated by AI

<u>Pre-conditions that should be satisfied for using expected exposure (instead of full notional)</u>

(1) Reasonable methodologies and parameters: In order to use expected exposure (instead of full notional) in measuring concentration risk in FX Accumulators as described in the table above (except for USDHKD which is linked), AIs should adopt prudent and reasonable methodologies in calculating the expected loss of their customers' FX Accumulators based on historical data and/ or other simulations. The methodologies adopted by AIs should observe the below guiding principles:

(i) reasonable size and coverage of data reference – e.g. where historical data are used, observation period should be reasonably set and should include the most volatile periods; where Monte Carlo simulation is used, there should be meaningful and sufficient number of paths (i.e. at least 5,000 paths);

(ii) If the following parameters are involved in the AI's methodology, the parameters used should fulfil the standards as set out below:

- *the time interval-volatility parameter to be used for calculation (e.g. 30-day volatility, 260-day volatility etc) should approximate the duration of the respective fixing from trade date or be more prudent. If there is no exact time interval-volatility matching with the length of a certain fixing, then the time interval-volatility parameter which approximates the duration of the respective fixing or with higher volatility should be used. To illustrate with two examples: the relevant number of trading days for the 3rd fixing and for the 12th fixing are around 65 and 260 trading days. Hence, for the 3rd fixing of a monthly fixing accumulator, the 60-day (trading days) volatility should be used (since usually there is no "65-day volatility" data, the "60-day volatility" is close to the actual trading days of 65). Similarly for the 12th fixing, the 260-day (trading days) volatility should be used. AIs should not simply use a 360-day (trading days) volatility for all the respective fixing because the use of 360-day (trading days) volatility would distort the expected exposure;*

- *since holding period used in the calculation would affect the calculated expected exposure, the holding period used for each fixing should be at least measured from the trade date to the respective fixing date. To illustrate with an example: for the 3rd month fixing, the holding period should be at least 3 months. AIs should not simply use one month holding period for all the respective fixing because this would distort the expected exposure; and*

- *a confidence level of at least 99.9% should be adopted.*

(2) *On-going calculation of expected loss: AIs should also calculate the expected loss with updated data both on a regular (at least quarterly) basis and when there have been significant changes in the market (e.g. when the market becomes highly volatile) or changes to the structure of FX Accumulators. Should an expected loss resulting from the periodic or ad hoc review be higher than the 40% minimum threshold as set out above, AIs should use the higher expected loss for new FX accumulator transactions in assessing asset concentration. Higher expected loss should also be used for existing FX accumulator transactions for the purpose of assessing relevant exposures on an aggregate basis.*

(3) *Verification of the calculated expected loss: The accuracy and reliability of an AI's expected loss calculation should be verified against the actual results (e.g. daily marked-to-market losses) through regular (at least quarterly) back-testing by independent control units. The AIs should also have a process to analyse exceptions identified through the back-testing. This process is intended to uncover any problem with the methodologies used in calculating the expected loss. The methodologies (including the underlying assumptions) in calculating the expected loss of FX Accumulators should also be subject to periodic review to reflect changing market conditions.*

(4) *Policies and controls: Proper policies, procedures and controls should be in place for the measurement of expected exposure for the purpose of concentration risk assessment of FX Accumulators.*

For AIs which do not have the methodologies and relevant controls satisfying **all** of the above conditions in calculating the expected loss of its FX Accumulators offered to customers, full notional should continue to be adopted in measuring concentration risk.

III. For any other currency pairs: Full notional (i.e. 100%)

For other currency pairs, full notional (i.e. 100%) should continue to be adopted in calculating the exposure of FX Accumulators in measuring concentration risk.

An example of a FX structured product (involving e.g. AUD/HKD) that should be classified as an accumulator:

The product has predetermined Strike Rate (e.g. AUD/HKD 7.19) and Cap Rate (e.g. 7.3), and consists of 12 fixing/ expiry dates (each followed by a settlement date). On each fixing/ expiry date:

- *If the Expiry Reference Rate (of AUD/HKD) is greater than the Cap Rate (7.3), the customer will receive a fixed pre-determined amount (of money or return) on the settlement date. In this case, the upside for the customer is capped.*

- *If the Expiry Reference Rate (of AUD/HKD) is less than or equal to the Cap Rate (7.3) but greater than or equal to the Strike Rate (7.19), the customer must buy a predetermined amount of AUD against HKD at the Strike Rate (7.19) on the settlement date.*

- *If the Expiry Reference Rate (of AUD/HKD) is less than the Strike Rate (7.19), the customer must buy a predetermined amount of AUD against HKD at the Strike Rate (7.19) on the settlement date. In such situation, the customer will incur a loss which could potentially be unlimited.*