**V.3, 28 November 2019
(updated content highlighted)**

**Supervisory Communication Website > Reporting Requirements > FAQ > MA(BS)12A**

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| Item | Question | Answer |
| 1 | Can an AI whose local/overseas subsidiaries are insignificant in terms of the size of total assets and liabilities exclude these from the consolidated IRRBB return?  | It is possible to exempt certain insignificant subsidiaries from the scope of the consolidated IRRBB return. An AI can contact its supervisor to apply for such an exemption, provided that the aggregate notional positions (the interest-rate sensitive positions on the assets or liabilities side of the balance sheet, whichever is larger, plus off-balance sheet interest rate-sensitive positions) of all the relevant subsidiary entities do not account for more than 5% of its total consolidated notional interest rate-sensitive positions on the assets or liabilities side of its balance sheet, whichever is larger. The HKMA will consider approval on a case-by-case basis, having regard to the specific circumstances of the applicant AI. An AI that has been granted such exemptions would potentially be considered as an outlier if its IRRBB exposure exceeds 14% (rather than 15%) of its Tier 1 capital. |
| 2 | Which products are in scope for the IRRBB framework? Are credit card receivables, nostro and vostro accounts in scope? | All products not excluded in paragraph 10 of the IRRBB Return Completion Instructions are in scope. Products in scope therefore include credit card receivables, nostro and vostro accounts. |
| 3 | Does the HKMA waive the need to address optionality for products that are not material to the overall IRRBB profile of the AI? | The Basel standards do not feature any materiality thresholds. Therefore AIs must assess all interest rate-sensitive assets and liabilities to monitor and report their interest rate risk. |
| 4 | How should AIs treat the optionality in managed rate products like prime rate loans? | The following is the reporting procedure for floating rate mortgages subject to prime rate caps:1. report the mortgage as a managed rate asset if the prime rate cap is binding, and as a floating rate asset otherwise. The optionality can be ignored for the purpose of calculating the EVE impact.
2. when reporting the basis risk section (item 19 on the IRRBB return), AIs should take into account the effect of the prime rate cap – see the Completion Instructions of the IRRBB return for details.
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| 5 | What is the time span of data that needs to be used for behavioural analysis of non-maturity deposits (NMDs)?  | For behavioural modelling of NMDs, AIs should always use at least 10 years of data if such data exist in their systems.An AI should notify its supervisors if the relevant data available to an AI extend to a period of less than 10 years but equal to or greater than 7 years. Such an AI should continuously extend its relevant database to cover at least 10 years and use all existing data to model NMDs in the interim period. An AI should contact its supervisors for approval if the data available to an AI extend to a period of less than 7 years and the AI intends to use such data for identifying core deposits. In particular, the AI should suggest additional prudential cushions for the NMD model estimates to its case officer. Furthermore, in considering granting the approval or not, the HKMA will assess whether the relevant assumptions and results adopted by the AI are sufficiently prudent, including for example, whether the AI can demonstrate that its assumptions and results (excluding the additional prudential cushions) are similar to those of peer AIs which have sufficient data history and similar firm-specific characteristics of expected customer behaviour, and that the assumptions and results are sufficiently realistic under stress scenarios. The AI should continuously extend its relevant database to cover at least 10 years.If available, the AI can use assumptions made for specific types of exposures and results for these from their parent banks or other banks in the same parent group. In case this is not possible the AI can propose its assumptions for the HKMA's consideration. Please note that an AI can also slot NMDs into the appropriate time bands according to the earliest date on which its interest rates can be adjusted (see paragraph 5.2.3 in the SPM). |
| 6 | How does the interest rate floor, used for the ΔEVE and ΔNII calculations, affect interest rate shocks? | Application of the −2% floor slightly differs between assets and liabilities: on the asset side the risk-free rate is floored at −2%. AIs taking spreads into account add this spread to the floored risk-free rate. On the liability side the sum of the risk free rate plus the negative spread (if taken into account) is floored at −2%. This approach is reflected in paragraph 5.3.2 of the SPM.For example, if the risk-free yield in the time bucket ‘Next day or less’ before the parallel downward shock is −0.1%, then applying the formula from paragraph 5.3.2 of the SPM results in a post-shock interest rate of −2%. That is, the floored shock in the time bucket ‘Next day or less’ is −1.9%. |
| 7 | Does the HKMA provide yield curves used in the IRRBB framework? How can AIs construct the yield curve used in the IRRBB framework? | The HKMA does not provide AIs with risk-free yield curves because these differ by currency and tend to change over time. It is the responsibility of AIs to construct appropriate yield curves based on the market conditions of individual currencies. |
| 8 | Can on- and offshore Renminbi be treated as a single currency in the IRR reporting template? | There still can be significant divergence between CNH and CNY interest rates, as could be observed in the last couple of years, and therefore CNH and CNY should be reported separately for the time being. |
| 9 | Do net positions used for ΔEVE calculations have to be the same as net positions used for ΔNII calculations? Are zero coupon bonds and credit card receivables in scope for the ΔNII calculations? | In general, net positions for EVE and NII calculations should be coherent. For the cases of zero coupon bonds and credit card receivables, these products are in scope for the ΔNII calculations. Including them reflects scenario-induced changes in accrued interest rate income or fee-generated income. However, notable exceptions include products with embedded optionality. An optional treatment for such products is outlined in paragraph 42 of the IRRBB Return Instructions.  |
| 10 | How are non-performing loans treated under the new IRRBB framework? How should a non-performing loan, which was originally a fixed rate loan to a corporate, be reported? | Non-performing loans (net of specific provisions) must be included as interest rate-sensitive assets.Non-performing loans should be slotted with the notional amount net of specific provisions under the same item (fixed/floating/managed) as prior to the designation as a non-performing loan. As regards tenor and coupon payments, they should reflect the AI’s expectations for the NPL and therefore may deviate from the original loan structure. |
| 11 | Should loans and trade finance products be reported gross or net of provisions on MA(BS)12A? | Notional reporting of loans and trade finance products in rows A to S on form 1 of MA(BS)12A should be made net of specific provisions, while book value reporting of total interest rate-sensitive assets in row T on form 1 should be made gross of provisions.It should be noted that all (both specific and general) provisions should be reported as other non-interest sensitive liabilities (book value) in row V on form 2. It should also be noted that the treatment outlined here for loans and trade finance products similarly applies to provisions for other products.  |
| 12 | Should the mark-to-market value of derivatives recorded on balance sheet be excluded in form 1 and form 2 of MA(BS)12A? | The mark-to-market values of derivatives recorded on balance sheet should be excluded for notional reporting (rows A to S) on form 1 and form 2 of MA(BS)12A, but they should be included for book value reporting (row T) on form 1 and form 2 of MA(BS)12A. |
| 13 | Should the accrued interest receivables and payables recorded on balance sheet be excluded in form 1 and form 2 of MA(BS)12A? | Accrued interest receivables and payables should be excluded for notional reporting (rows A to S) on form 1 and form 2 of MA(BS)12A, but they should be included for book value reporting (row T) on form 1 and form 2 of MA(BS)12A. |
| 14 | Should a product with fixed rate cap/floor be reported as fixed rate if the fixed rate cap/floor is triggered? For the basis risk calculation, should the same calculation logic as floating rate assets subject to managed rate cap be followed? | Paragraph 14 of MA(BS)12A specifies that assets or liabilities with embedded automatic interest rate options (such as floating rate loans with embedded caps and/or floors, however with the exception of options embedded in mortgage loans subject to *managed* rate caps) should be decomposed into embedded automatic interest rate options and underlying assets or liabilities. The embedded automatic interest rate options should be reported under off-balance sheet positions and the underlying assets or liabilities should be slotted into the appropriate time bands according to their earliest interest repricing date. Accordingly, a fixed cap floating rate loan should be stripped of the automatic interest rate option. The option is then reported under Item 14 while the stripped loan is reported as floating rate asset under Item 3 in the IRRBB return. For the basis risk calculation, the same treatment as for floating rate assets subject to a managed rate cap applies (however without re-classifying the floating-rate loan as a managed rate asset). Please refer to paragraph 44 in MA(BS)12A for further details. |
| 15 | Are AIs permitted to construct the risk-free yield curve (without spread components) for discounting purposes even if the AIs slot coupon cash flows including spread components? | Yes, that is allowed (see footnote 23 in MA(BS)12A). |
| 16 | Do AIs need to go through the entire automatic interest rate options valuations procedure for all currencies (including currencies that will not be major) before arriving at the conclusion as to which currencies are major and whether the sum of all non-major currencies exceeds the 10% threshold? | AIs are expected to be fully aware of their interest rate exposures through options for all currencies. If the AIs can show that a currency is not major by any alternative method without going through the entire automatic interest rate options valuations, it will also be acceptable provided that the alternative method is reasonable. |
| 17 | If an AI has less than 7 years of historical data and intends to use the data for identifying core deposits, how can they compare their assumptions and results with the “peer banks” which are usually not disclosed? | The AI may make reference to the assumptions and results of their parent banks or other banks in the same group. In case this is not possible then perhaps they can propose their assumptions for HKMA's consideration, and the HKMA will advise whether the assumptions are acceptable based on its observations from the peer banks. |
| 18 | How to obtain implied volatility or market price of rarely traded option? | AIs are expected to identify proxies for the purpose of option valuation or estimate the value of illiquid/non-existent options themselves. |
| 19 | If the Tier 1 capital position as at the end of the last quarter is not yet available by the reporting date, can an IRRBB-reporting AI use the latest Tier 1 capital position available instead? | Yes, that is possible. |
| 20 | If an FX swap is yet to settle, how should the near leg and the far leg be reported? | For an FX swap both legs are slotted under item 10 (forward foreign exchange contracts) in the returns of the relevant currencies, with the near legs of the FX swap yet to settle slotted in the time band during which settlement is expected. |
| 21 | For those IRRBB-reporting AIs that report both their positions in the banking and trading books, what maturity should be applied to securities held in the trading book if the holding period is expected to be shorter than the contractual maturity?  | The securities’ contractual maturities have to be used for the trading book positions as well so that these positions’ present values will be properly reflected in the EVE calculations under different scenarios.  |
| 22 | Do the post-shock interest rate formulas in Footnote 13 of SPM IR-1 refer to AIs taking spreads into account in the construction of the risk free yield curve for discounting purposes, but not to AIs including spread components in the slotting of coupon cash flows? | The slotting of coupon cash flows is normally not affected by the floor. In the EVE calculation, which is based on the roll-off balance sheet assumption, coupon cash flows from floating rate instruments are only slotted until the next repricing date, and coupon cash flows from fixed rate positions are fixed based on the contractual rate (both are normally unaffected by interest rate scenarios). Therefore, the post-shock interest rate formulas are mainly used for obtaining yield curves for discounting purposes. |
| 23 | How are spreads defined in the IRRBB framework? | Fixed spreads, which in the IRRBB standardised framework may be slotted until contractual maturity, can be defined as the difference between contractual and risk-free rate if that difference can arguably be assumed constant over time, that is, that the AI can pass through any changes in the risk-free rate to the customer. For example, if a contract is defined as HIBOR + 2%, with HIBOR and risk-free rate highly correlated over the past years, the spread (= HIBOR + 2% − risk-free rate) can be assumed fix and according coupon payments are slotted until contractual maturity in the IRRBB framework (see paragraph 41 in MA(BS)12A for further details). Since the prime rate does not exhibit high correlation with the risk-free rate, the spread should not be assumed constant and the difference between “prime rate + x%” and the risk-free rate cannot be considered a spread component for IRRBB purposes. |
| 24 | How should option positions for item 14 on form 3 of MA(BS)12A be calculated and reported? | To report the option positions under item 14 on form 3 of MA(BS)12A, AIs follow a two-step procedure:1. A position is included in the ‘Long’ column (14. a.) if the AI has bought/owns the options and in the ‘Short’ column (14. b.) if the AI has sold/provided the options.
2. Option-implied underlying cash flows that are long (i.e. those from call options) are entered with a positive sign, and option-implied underlying cash flows that are short (i.e. those from put options) are entered with a negative sign.

Note that: * within each column in row (T), netting between contracts is permitted, and the AI can enter a positive or negative number (depending on the portfolio positions). For example, a positive number in column 14.a indicates a net long cash flow position (by delta equivalent) of all options bought/owned by the bank (the opposite holds for a negative sign). A positive number in column 14.b indicates a net short cash flow position (by delta equivalent) of all options sold/provided by the bank (the opposite holds for a negative sign).
* the options may differ in characteristics of the underlying (bond type, maturity, issuer, coupon etc.) as well as characteristics of the contracts themselves (strike, American/European type option, date of exercise, etc.).

As an example, consider an AI has 1. bought call options on bonds from company A (total delta equivalent value USD 20 million),
2. bought put options on US government bonds (total delta equivalent value USD −100 million),
3. sold call options on US government bonds (total delta equivalent value USD 70 million), and
4. sold put options on bonds from Company B (total delta equivalent value USD −30 million).

An overview of option reporting including positions A to D is displayed in the following table:

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| --- | --- | --- | --- |
|  | **Cash flow** | **Long** | **Short** |
| **Option** |  |
| **Bought/owned (14.a)** | Value entered in 14.a has a positive sign[Bought call, case A from above: USD 20 million] | Value entered in 14.a has a negative sign[Bought put, case B from above: USD −100 million] |
| **Sold/provided (14.b)** | Value entered in 14.b has a positive sign[Sold call, case C from above: USD 70 million] | Value entered in 14.b has a negative sign[Sold put, case D from above: USD −30 million] |

The figure to be reported in row ‘Total Options (T)’ under column 14.a is USD −80 million (the sum of USD −100 million and USD 20 million).The number to be reported in row ‘Total Options (T)’ under column 14.b is USD 40 million (the sum of USD −30 million and USD 70 million). The total net (delta equivalent) option position in columns 14.a and 14.b therefore indicates a short exposure of USD 120 million (USD −80 million − USD 40 million). |
| 25 | Are there any examples showing the calculations for form 4 of MA(BS)12A? | Some calculation examples are provided in the attached Excel file:(Calculations for item 19 on form 4 (basis risk) have been updated.) |
| 26 | What are the sizes of interest rate shocks for currencies not covered in section 5.3 of SPM IR-1? | For the MOP the same interest rate shocks as for the HKD apply. For all other currencies not covered in SPM IR-1, for the time being, the applicable interest rate shocks are 500 bp, 400 bp, and 300 bp for the short, parallel, and long-term interest rate shocks, respectively. The HKMA may provide further updates for specific currencies in future updates of the FAQ.Positions in silver and other precious metals (except gold) need not be reported. For the purpose of reporting positions in gold in MA(BS)12A, the interest rates as well as the interest rate shocks are zero for all time bands. |
| 27 | Do all AIs have to apply the definition of retail loans provided in section 5.2 of the SPM IR-1 irrespective of whether they follow the standardised or internal ratings based approach for credit risk? | To ensure comparability of IRRBB data and consistent reporting standards, all AIs, irrespective of whether they follow the standardised or internal ratings based approach for credit risk, must apply the definition of retail loans provided in section 5.2 of the SPM IR-1. |
| 28 | Is there an acceptable simpler methodology, besides using the delta adjusted notional, for determining the option position in the calculation of significant currencies? | AIs may use the notional amount instead of delta-adjusted notional for option positions, or other simpler methodologies which are considered prudent enough by the HKMA, in the calculation to determine significant currencies. However, we would like to point out that even though we may allow for a simpler but more prudent methodology for the special case of option positions calculation in the significant currency determination, we expect AIs to be able to calculate the delta- adjusted notional of all their option positions.  |
| 29 | How do off-balance sheet positions, which are underlying items 10 to 15 in the return, enter the calculation of significant currencies? | According to paragraph 9 of the completion instructions, the off-balance sheet positions, which enter the significant currency calculation, are defined as the sum (gross of long and short positions) of the notional principals (covered in items 10-13 and 15) as well as the delta-adjusted notional values (covered in item 14) of all relevant interest rate-sensitive off-balance sheet contracts. Each off-balance sheet position enters the significant currency calculation of an individual currency at most once, however, an off-balance sheet position can enter the significance calculation for more than one currency (for example, in the case of a foreign exchange contract, which involves two currencies). |
| 30 | How should prime rate loans subject to floors be reported? | Prime rate loans subject to floors should be reported as a managed rate asset. The optionality introduced by the floor can be ignored for reporting and calculations under both economic value and earnings perspectives. |
| 31 | How should an AI report EVE changes for currency option positions? | In addition to the modeled increase in the option’s volatility (see paragraph 43 of MA(BS)12A), an AI should shock the involved currencies’ interest rate curves separately to obtain two different value changes of the same underlying option and report the values under the respective currencies of MA(BS)12A. |
| 32 | How does the yield of a zero-coupon bond enter the weighted average yield/interest cost calculations for MA(BS)12A and MA(BS)12B? | The yield (or implicit yield) of the zero-coupon bond when it is recognised on the AI’s balance sheet should be used for the total weighted average yield / interest cost calculations for MA(BS)12A (columns 1.c. and 5.c.) and MA(BS)12B (column 1.c.). For multiple acquisitions or short sales of the same issue, the average yield (or implicit yield) of the zero-coupon bond weighted based on the notional values should be used. |