January 2017

From : Saudi Arabian Monetary Agency

To : All Domestic Banks only and not applicable to Foreign Bank Branches

Attention : Managing Directors, Chief Executive Officers and General Managers

Subject : **Interest Rate Risk in the Banking Book (IRRBB)**

Background

These standards revise the Basel Committee's 2004 *Principles for the management and supervision of interest rate risk*, which set out supervisory expectations for banks' identification, measurement, monitoring and control of IRRBB as well as guidance for its supervision. The key enhancements to the 2004 Principles include:

- More extensive guidance on the expectations for a bank's IRRBB management process in areas such as the development of interest rate shock scenarios, as well as key behavioural and modelling assumptions;
- Enhanced disclosure requirements to promote greater consistency, transparency and comparability in the measurement and management of IRRBB. This includes quantitative disclosure requirements based on common interest rate shock scenarios;
- An updated standardised framework; and
- A stricter threshold for identifying outlier banks, which has been reduced from 20% of a bank's total capital to 15% of a bank's Tier 1 capital.

The standard reflects changes in market and supervisory practices, which are particularly pertinent in light of the current exceptionally low interest rates in many jurisdictions.

SAMA has conducted a consultation process with the Saudi Banks in the development of this regulation and that has resulted in preparation of the following documents:

- Annexure 1: Regulatory returns based on Table A and Table B of the Basel document.
- Annexure 2: Frequently Asked Questions (FAQs) and answers including National Discretions

Implementation date

These rules are applicable from 1 January 2018 as specified in the Basel document. However, in 2018, the disclosures should be based on information as of 31 December 2017. The Banks should also send pro forma disclosures to SAMA based on 30 September 2017 data by 31 October 2017.

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Changes in Q17 template

- No changes in Q17 template has been made.
- Table A and Table B in Basel document (as shown on next page) should be used as a regulatory return to be reported to SAMA on a half yearly basis

Table A

Purpose: To provide a description of the risk management objectives and policies concerning IRRBB.	
Scope of application: Mandatory for all banks within the scope of application set out in Section III.	
Content: Qualitative and quantitative information. Quantitative information is based on the daily or monthly average of the year or on the data as of the reporting date.	
Format: Flexible.	
Qualitative disclosure	
a	A description of how the bank defines IRRBB for purposes of risk control and measurement.
b	A description of the bank's overall IRRBB management and mitigation strategies. Examples are: monitoring of EVE and NII in relation to established limits, hedging practices, conduct of stress testing, outcomes analysis, the role of independent audit, the role and practices of the ALCO, the bank's practices to ensure appropriate model validation, and timely updates in response to changing market conditions.
c	The periodicity of the calculation of the bank's IRRBB measures, and a description of the specific measures that the bank uses to gauge its sensitivity to IRRBB.
d	A description of the interest rate shock and stress scenarios that the bank uses to estimate changes in the economic value and in earnings.
e	Where significant modelling assumptions used in the bank's IMS (ie the EVE metric generated by the bank for purposes other than disclosure, eg for internal assessment of capital adequacy) are different from the modelling assumptions prescribed for the disclosure in Table B, the bank should provide a description of those assumptions and of their directional implications and explain its rationale for making those assumptions (eg historical data, published research, management judgment and analysis).
f	A high-level description of how the bank hedges its IRRBB, as well as the associated accounting treatment.
g	A high-level description of key modelling and parametric assumptions used in calculating ΔEVE and ΔNII in Table B, which includes: For ΔEVE, whether commercial margins and other spread components have been included in the cash flows used in the computation and discount rate used. How the average repricing maturity of non-maturity deposits in (1) has been determined (including any unique product characteristics that affect assessment of repricing behaviour). The methodology used to estimate the prepayment rates of customer loans, and/or the early withdrawal rates for time deposits, and other significant assumptions. Any other assumptions (including for instruments with behavioural optionalities that have been excluded) that have a material impact on the disclosed ΔEVE and ΔNII in Table B, including an explanation of why these are material. Any methods of aggregation across currencies and any significant interest rate correlations between different currencies.
h	(Optional) Any other information which the bank wishes to disclose regarding its interpretation of the significance and sensitivity of the IRRBB measures disclosed and/or an explanation of any significant variations in the level of the reported IRRBB since previous disclosures.
Quantitative disclosures	
1	Average repricing maturity assigned to NMDs.
2	Longest repricing maturity assigned to NMDs.

Table B

Scope of application: Mandatory for all banks within the scope of application set out in Section III.

Content: Quantitative information.

Format: Fixed.

Accompanying narrative: Commentary on the significance of the reported values and an explanation of any material changes since the previous reporting period.

In reporting currency	ΔEVE		ΔNII	
Period	**T**	**T–1**	**T**	**T–1**
Parallel up				
Parallel down				
Steepener				
Flattener				
Short rate up				
Short rate down				
Maximum				
Period	**T**		**T–1**	
Tier 1 capital				

Definitions

For each of the supervisory prescribed interest rate shock scenarios, the bank must report for the current period and for the previous period:

(i) the change in the economic value of equity based on its IMS, using a run-off balance sheet and an instantaneous shock or based on the result of the standardised framework as set out in Section IV if the bank has chosen to adopt the framework or has been mandated by its supervisor to follow the framework; and

(ii) the change in projected NII over a forward-looking rolling 12-month period compared with the bank's own best estimate 12-month projections, using a constant balance sheet assumption and an instantaneous shock.

Changes in Q17 template

- For Pillar 3 purposes, annual disclosure should be made using Table A and Table B following Pillar 3 timelines in one consolidated Pillar 3 document.

Frequently Asked Questions and Answers

Log Ref #	Challenges / Issues	SAMA's response
1	Prepayment - page 30, paragraph 132 Where the IRRBB documentation suggests setting a suitable cap for determining the materiality of "prepayment" and "early redemptions", the Working group recommends using 5% of a bank's banking book assets or liabilities, as a conservative cap, to allow for comparability between Saudi Banks. In the absence of any materiality criteria for the aforementioned, this analogy has been carried forward from the Basel document, where it defines material currencies as, "those accounting for more than 5% of either banking book assets or liabilities"	SAMA agrees with this proposal to use a cap of 5% of a bank's banking book assets or liabilities.
2	Prepayment - It has been widely agreed within the Working Group that early-redemptions and prepayments are immaterial in the Saudi Retail Sector. This assertion is built on the Working Group's members' knowledge of their customers' behavior. Prepayment modeling of Corporate portfolio would be a challenge as these prepayments are more specific deal by deal in nature driven by specific customer business needs. Additionally, Banks will have greater ability to charge the replacement cost, which eliminates the prepayment risk. ARB is of the view that prepayment analysis of Corporate loans should not be mandatory.	Banks should submit prepayment analysis for both retail and corporate sector to SAMA by 31 March 2017 to determine the next steps.
3	Capital Charges - Several banks have raised questions regarding ICAAP. The Working Group would like to clarify that the standardized framework, as described in section IV, is not mandatory for ICAAP purposes (i.e. the section IV framework specifically relates to public disclosures of IRRBB)	Banks have to write to SAMA to indicate their preferred approach, which ideally should be consistent for both ICAAP and Pillar 3 disclosures. However, the banks have a choice to use internal models if they wish so. However, SAMA, based on bilateral ICAAP discussions in 2017/2018 could mandate few banks on a case-by-case basis to follow standardized framework. Please note that the treatment of equity in internal models is subject to discussion with SAMA on a case-by-case basis.

4	Capital Charges - Principle 9, page 18, paragraph 72 The Working Group understands that as the IRRBB capital charge remains under pillar 2, it remains subject to the bank's own assessment methodology and assumptions (as per ICAAP) and as such does not necessarily have to follow Section IV assumptions.	This is correct. Same response as above.
5	Capital Charges - Principle 9, page 18, paragraph 74 and Annex 1, S4.2.ii From the relevant documentation, the Working Group agrees that under the economic value approach, the ICAAP capital charge for IRRBB can be assessed based on the change in the economic value of the whole banking book including equity, thereby making an assessment based on a "going concern" basis.	This is correct. However, in the Pillar 2 forecast, banks should consider sufficient buffers for IRRBB.
6	Shock scenarios - page 30, paragraph 132 Shock scenarios are to be applied to IRRBB exposures in each currency for which the bank has material positions. The Technical Working Group refers to the pertinent documentation, which sets anything above 5% of a bank's balance sheet assets or liabilities as the criteria for determining the materiality of currency exposures.	SAMA agree with this threshold.
7	Shock scenarios - In relation to questions raised about shock scenarios in different currencies, the Working Group would like to highlight that the pertinent documentation clearly sets out different scenarios for each currency, which are to be used by all banks to allow for comparability of banks' disclosures.	This is correct.
8	Shock scenarios - Annex 2, page 45 In relation to shock scenarios, the pertinent documentation allows for the regulator to set a floor for interest rate shocks, provided it is less than or equal to zero. The Working Group suggests, given banks' consumer pricing methods and the current economic environment in KSA, zero would be a suitable floor for SAMA to set for shock scenarios	Based on current economic environment, SAMA would like zero as a suitable floor for shock scenarios. However, if circumstances change in future, this will be adjusted accordingly.

9	Conditional Prepayment rate - page 27, paragraph 121 In the event that SAMA does not prescribe any CPRs, SAMA is requested to facilitate the calculation of a set of standardized CPRs based on KSA / bank-wide data, that is available to it through SIMAH and for these CPRs to be made available to all banks as a fallback position due to lack of available good quality data.	SAMA will look into this and will communicate accordingly. In the meantime, all domestic banks should send weighted average CPRs to SAMA by 31 March 2017.
10	Disclosures - Regarding the disclosure of the results from the standardized framework, the Working Group finds that this is sufficiently outlined within the IRRBB documentation, where any deviations from the standardized approach must be approved by SAMA.	This is correct. All banks should send proforma disclosures to SAMA based on 30 September 2017 data by 31 October 2017. SAMA will review this information and if needed, form a smaller sub group (reporting to CFO Committee) to ensure minimum consistency across the banking sector.
11	Disclosures - The medium for disclosures should be in line with all other Basel disclosures	The medium for disclosure should be Pillar 3 document. Also, banks should make sure that this is in line with other Basel disclosures.
12	Outliers - page 21 paragraph 89 Regarding "additional outlier/materiality tests", the Working Group recommends that no additional materiality tests be applied at this time so as to allow banks and SAMA to become familiar and confident with the mechanics and output of the standardized framework.	SAMA agrees with the proposition during the transitional period next year and banks should communicate their potential charge by September 2017. During this time, SAMA will assess if additional outlier/materiality tests could be used based on Common Equity Tier 1 (CET1) capital or the bank's IRRBB relative to earnings. However, this will not exceed Basel requirements of at least 15% of Tier 1 capital.
13	Timeline Setting a timeline for implementation of the prescribed IRRBB documentation is an area implicitly requiring guidance from SAMA. Considering the culmination of the transitional implementation period on 30th September 2017, the Working Group recommends to make the first submission of IRRBB disclosures to SAMA within one month of this reporting date (i.e. first submission by 31st October 2017, based on 30th September 2017 positions)	SAMA agrees with this proposal. All banks should send pro forma disclosures to SAMA based on 30 September 2017 data by 31 October 2017. However, in terms of final timelines, SAMA would stick to Basel timeline of using 31 December 2017 year-end for Pillar 3 disclosures in 2018.

14	Executive Summary Page 2, Para 4 : Supervisor must publish their criteria for identifying outliers banks under Principle 12. The threshold for the identification of an "outlier bank" has been tightened, where the outlier/material tests applied by supervisors should at least include one which compares the bank's change EVE with 15% of its Tier Capital, under the prescribed interest rate shock • Unclear criteria for outliers bank. • Unclear minimum to be required by SAMA and the deadline to comply with this regulatory minimum threshold. • Unclear whether this will be compulsory requirements? • Any regulatory punishment if the minimum requirement is not complied? • The frequency for reporting the minimum compliance with SAMA?	Same response as 12 above. During transitional period, SAMA will observe the impact and will give deadline to meet minimum threshold. Once announced by SAMA, this will become compulsory requirement for the banking sector. This will not be published each year. However, if circumstances change, this threshold will be revisited as and when needed.
15	The standard template for submission is proposed be finalized (Table A). Any changes of current Q17 Reports arising from this new requirement need to be communicated to banking industry as soon as possible so the necessary action plans could be initiated to comply with this new reporting requirements. i. What is the frequency of reporting to SAMA? ii. What is templates for the reporting to SAMA/external party?	A new template based on Table A and Table B will be used in Q17 reports. i. Quarterly through Q17 returns ii. Annually in Pillar 3 table format as specified in the Basel document
16	Page 6, Principle 3: The bank risk appetite for IRRBB should be articulated in terms of risk to both economic value and earnings. Bank must implement policy limits that target maintaining IRRBB exposures consistent with their risk appetite. Unclear regulatory requirement whether the risk appetite from earning perspective will be mandatory for the bank	Banks should decide the risk appetite themselves suitable to their balance sheets keeping in view regulatory minimum thresholds.

17	Interest Rate shock and Stress Scenarios Page 8, Para 35 – Banks's IMS for IRRBB should be able to accommodate the calculation of the impact on economic value and earnings of multiple scenarios based on the six prescribed interest rate shock scenarios set-up in Annex 2 In the Annex 2, the standardized interest rate shock scenario, SAR Yield Curve is not included by the Basel Committee.	Banks should use USD to get indication about SAR yield curve.
18	Page 9, Para 40 - Bank should determine by currency, a range of potential movements against which they will measure IRRBB exposure i. Unclear guidance on the minimum threshold for the currency to be measured and reported to regulator. ii. Unclear guidance on whether the requirement is to be monitored at the Bank or Group level. iii. Any threshold for the subsidiary to be excluded for the Group Level?	i. Already elaborated in 6 above. ii. This will be applied at both Solo and Consolidated levels of all domestic banks iii. Not at this stage.
19	Page 10, Para 43 - Qualitative of reverse stress testing In order to identify interest rate scenarios that could severely threaten a bank's capital and earnings. • How this scenario of interest rate to be implemented in practice? Are we assuming other factors are constant? Any increase of interest rate may affect the default rate of loan portfolio. • Are we assuming the increase of interest rate until the RWCR is lower than minimum requirement of 8% or minimum capital ratio to be maintained by SAMA with the assumption the other factors are constant? The unclear guideline in the Basel's document	As IRRBB is a pillar 2 charge, target CAR should be used as minimum capital threshold for each bank.
20	IV. Standard Framework Paragraph 4: Treatment of positions with behavior options other than NMDs	Banks should do the calculations themselves and this will be assessed by SAMA for each bank on a case-by-case basis.

	Page 27, Para 118 – Under standardized framework, the optionality in these products is estimated using two step approach. Firstly, baseline estimates of loan pre-payment and early withdrawal of fixed term deposits are calculated given the prevailing term structure of interest rate. Note: These baseline parameters may be determined by bank subject to supervisor review and approval, or prescribed by supervisor. • What is the standard methodology being accepted by SAMA to estimate the loan pre-payment and early withdrawal of the fixed deposits given the prevailing term structure of interest rate. • Is baseline may be estimated by bank and subject to the approval by the SAMA? • What is the prescribed baseline for the bank in Saudi by SAMA in the case on the baseline parameters is not approved by SAMA or the bank is not able to calculate the baseline parameters due to lack of historical data? • In the case of lacking of the historical data to perform the analysis by the bank • Will SAMA prescribe the baseline parameters?	
21	Whilst the Basel principles state that Credit Spread Risk in the Banking Book must be addressed, the document has little detail as to how this should be approached, in contrast to the more specific requirements for IRRBB. Does SAMA anticipate issuing guidance in this regard or should all banks address individually?	The working group members should provide recommendations to SAMA whether central approach would work for them. Some members suggested to include the full margin, which includes the customer's credit spread, but definitely exclude the Bank's own credit spread when discounting. However, each bank should consider this suggestion based on their internal needs and requirements.

22	Para 115 Table 2 provides caps on core deposits and average maturity by category. In case 10 years data history identifies higher core deposits than the CAP provided in this table. As per treatment of Non-maturing deposits(NMDs), suggested in the standardized framework detailed in PRRBB circular dated April'16 (para 115), the cap on the core portion of corporate deposits is provided as 50%. ARB is of the view that the minimum core threshold should be increased for the deposits which have operational relationship with the bank	Banks should determine an appropriate cash flow slotting procedure for each category of core deposits, up to the maximum average maturity per category and caps as specified in the Basel document.
23	Section 3: Para 112 Data availability is a big challenge, as NMD, Redemption Risk & Prepayment risk modeling require more than past 10 years of data which currently we don't have very matured data. The duration of data should be based from what is only available since the Bank's inception	This requirement of 10 years will be waived on a case-by-case basis keeping in view newly incorporated banks not having sufficient history. However, the banks should specifically write to SAMA in this regard.

Basel paper is available at http://www.bis.org/bcbs/publ/d368.pdf