

# Pillar III Disclosures

Al Rajhi Bank



## PROFIT RATE RISK IN BANKING BOOKS

**June 30, 2018**

## Profit rate risk in the Banking book (PRRBB)

Table A

### *Qualitative disclosures*

**a) A description of the Bank defines IRRBB for purposes of risk control and measurement.**

- PRRBB is defined as the process of managing risks that arises due to mismatches (of cash-flow/ re-pricing) between the assets and liabilities positions of the Bank. It is a process of strategic planning which assists the Bank to mitigate or hedge, it's on and off balance sheet risks while focusing on return optimization.
- The Bank currently focuses on monitoring earning variability for PRRBB management in line with the established Risk Appetite and has instituted Economic Value of Equity (EVE) and Net Interest Income (NII) related measures for PRRBB management as required by BCBS 368 guidelines, along with associated Board approved limits for active monitoring.

**b) A description of the Bank's overall IRRBB management and mitigation strategies.**

- There is monthly monitoring of EVE and NII through ALCO in relation with established limits: As mentioned above in the response of point (a)
- Hedging practices: Currently the Bank does not have specific products to hedge the Interest rate risk on its Banking Book. Wherever possible conscious attempts are made to create natural hedge by matching the maturities/re-pricing of rate sensitive assets and liabilities. However, the Bank is working on products to hedge its interest rate risk.
- Conduct of Stress Testing: The Bank currently conducts stress tests for Net Interest Income (NII) variation, by assessing the impact of interest rate shifts on Bank's earnings. In addition, EVE Stress Tests as required by the BCBS368 guidelines are conducted for the six shock scenarios.
- Outcomes analysis: NII related stress tests based on the Bank's current gap profile is utilized to assess impact on Net Income upto 1 year. It helps us to measure variations in NII if it remains within the stipulated approved Risk Appetite. In addition, the Bank has a similar process to ensure that the outcome of EVE related stress tests remains within the targeted Risk Appetite threshold through active Balance Sheet management.
- The role of Independent Audit: Internal Auditors play a key role in evaluating the effectiveness of Group Profit Rate Risk Management. Their role extends to evaluation of the reliability of reporting effectiveness and efficiency of operations, and ensuring that laws and regulations are complied with.
- The role and practices of ALCO: The Bank's Asset and Liability Committee (ALCO):
  - Ensures that policy guidelines pertaining to PRRBB and; related decisions of the Board and ALCO are enforced within the Bank
  - Regularly review the market activities and ensure that effective decisions are taken and implemented in a timely way
  - Ensures that adequate stress Testing is undertaken with respect to PRRBB and that a set of key management actions that would be progressively taken in advance of such event and/or during any deterioration in economic environment on a timely basis

- The Bank's practices to ensure appropriate model validation: The Bank had engaged external consultants to formulate the PRRBB models as per the Basel and SAMA guidelines. The models developed by the consultants were subjected to back testing and validation by the consultants who developed the models.
  - Timely updates in response to changing market conditions: The Bank's Treasury actively monitors variations in market conditions, which may require balance sheet rebalancing. Risk Group at the Bank also supports Treasury to perform the task effectively. Additionally, ALCO being responsible for periodic monitoring of PRRBB profile of the Bank, takes requisite key management actions to implement corrective measures (if any) to ensure that the market dynamics do not cause breach of approved risk thresholds in place at the Bank.
- 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.**
- The Bank undertakes its PRRBB measurement on a monthly basis through measurement of specific parameters like EVE and NII sensitivity analysis.
- 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.**
- The Bank uses regulatory shock scenarios as prescribed in BCBS 368 guidelines for  $\Delta$ EVE (six regulatory shock scenarios) and  $\Delta$ NII (two regulatory shock scenarios) computation.
- e) Where significant modeling assumptions used in the Bank's IMS (i.e. the EVE metric generated by the Bank for purposes other than disclosure, e.g. for internal assessment of capital adequacy) are different from the modeling 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 (e.g. historical data, published research, management judgment and analysis).**
- The Bank prepares PRRBB IMS for Internal Capital Adequacy Assessment Process (ICAAP). As advised by SAMA, the Bank needs to maintain consistency in methodology between ICAAP and Pillar III PRRBB disclosures. Hence, the Bank has aligned the ICAAP 2018 PRRBB computation as per BCBS 368 guidance.
  - Assumptions considered for computation of  $\Delta$ EVE and  $\Delta$ NII provided in Table B:
    - Current portfolio distribution (amount wise) considered to arrive at the Weighted Average Lending Rate (WALR) for each portfolio
    - CPR has been computed only for Retail portfolio at the product level i.e. same CPR has been applied for a product across time maturity buckets. CPR models for different Retail products (Personal Loans, Auto Loans and Real Estate Loans) are developed based on 14-month historical data. The Bank endeavors to enrich the available data to generate long term history of data for improved Conditional Prepayment Rate (CPR) numbers.
    - Credit/ Charge card are exempted from the prepayment behavioral modeling because:
      - Profit rate charged for the product is higher compared to other relevant alternatives. Accordingly, there will be no/ miniscule impact of market interest rate movements for credit/ charge cards; and
      - Overall duration for the settlement for the product is around 1-2 months with no contractual cash flow schedule for which no

prepayment assessment can be made.

- Cash flow shifting to earlier time maturity buckets has been considered after application of CPR to the Retail products. Interest component for the last time maturity bucket (after shifting of cash flows) has been considered proportionally based on the outstanding notional in second last time maturity bucket and scheduled principal of last time maturity bucket.
- Term deposits out of the total deposits is only miniscule portion and also as per the past experience, the Bank does not have early redemption risk for Term Deposits; Therefore, TDRR has not been computed.

**f) A high-level description of how the Bank hedges its IRRBB, as well as the associated accounting treatment.**

- Same as mentioned above in point (b).

**g) A high-level description of key modeling and parametric assumptions used in calculating  $\Delta EVE$  and  $\Delta NII$  in Table B, which includes:**

- For  $\Delta EVE$ . whether commercial margins and other spread components have been included in the cash flows used in the computation and discount rate used:
  - The Bank has used the current indicative lending rate for products in scope for the discounting purpose which comprises of commercial margin and other risk spreads as specified in BCBS 368 guidelines. The Bank computes Weighted Average Lending Rate (WALR) for the entire portfolio based on the amount wise distribution and average/ median/ mode indicative lending rates for each tenor for respective portfolio under PRRBB purview (e.g. Corporate, Treasury, SME and Retail). Discounting factor is computed according to regulatory formula based on computed WALR for the entire portfolio.
- How the average re-pricing maturity of non-maturity deposits<sup>2</sup> in (1) has been determined (including any unique product characteristics that affect assessment of re-pricing behavior):
  - The NMDs have been split into Retail and Wholesale deposits. The non-core portion of the Retail NMDs have been taken at 15% in overnight bucket. Correspondingly the remaining 85% has been considered as core which has been distributed on a time weighted manner till the longest maturity of 5 years for the Retail deposits. For the Wholesale deposits, the non-core portion of the NMDs have been taken at 50% in overnight bucket. Correspondingly the remaining 50% has been considered as core which has been distributed on a time weighted manner till the longest maturity of 4 years. Thereafter, the average re-pricing has been computed on a weighted exposure basis.
- The methodology used to estimate the prepayment rates of customer loans, and/or the early withdrawal rates for time deposits, and other significant assumptions:
  - ARB performs behavioral modeling for fixed rate Retail products with material exposures to early prepayment risk. The standardized framework as specified by the Basel Committee for Banking Supervision (BCBS) is followed, whereby baseline constant prepayment rates are calibrated using historical data for each relevant sub-product and scaled by a factor of 0.8

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<sup>2</sup> The average re-pricing maturity/longest re-pricing maturity of these NMD's would be subject to change post model validation by consultants (refer para IV.1.2 above).

for downward interest rate shock scenarios and 1.2 for upward scenarios. Behavioral modeling is performed for the currency that these loans are denominated in, namely SAR.

- Time Deposits (TDs) early withdrawal risk assumptions: The Bank has raised Time Deposits, albeit a small portion out of the total customer deposits, majorly from Corporates where early redemption has not been observed. Accordingly, the Bank does not compute Term Deposit Redemption Risk (TDRR) for current portfolio of TDs. In future, if the Bank raises term deposit products with early redemption risk (for which Profit Rate risk is not recovered from the customer); the Bank will compute TDRR and appropriate cash flow treatment will be considered.
- Any other assumptions (including for instruments with behavioral optionalities that have been excluded) that have a material impact on the disclosed  $\Delta$ EVE and  $\Delta$ NII in Table B, including an explanation of why these are material:
  - Assumptions for prepayment behavior modeling have been described above.
  - Being majorly focused on Retail Lending (forming app. 70% of the portfolio); the Bank has developed behavioral models for prepayment risk i.e. Conditional Prepayment Rate (CPR) for Retail portfolios only.
  - Assumption/ clarification for early withdrawal risk for time deposits already provided above.
- Any methods of aggregation across currencies and any significant interest rate correlations between different currencies:
  - As per the guidelines, the Bank has significant currency exposure only in base currency i.e. SAR. Exposure from all Foreign Currencies (FCY) are insignificant as they are less than 5% of Assets or Liabilities. The Bank has included FCY exposures in the base currency with the conversion rate as on the reporting date. Accordingly, significant interest rate correlations between different currencies are not applicable for Bank's current portfolio.

**h) 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 IRRBS since previous disclosures.**

- Currently, the Bank does not deal in the products with optionality that makes the timing of notional re-pricing cash flows uncertain/ non-linear in nature. Hence, no product in the existing portfolio has been mapped to Less Amenable category and consequently, no Add-on factor computation is made for  $\Delta$ EVE and  $\Delta$ NII. The Bank will compute Add-on factor for Less Amenable category when it will start dealing in such products.
- Current report is on solo basis at Bank level. The Bank would undertake group level submission going forward.

***Quantitative disclosures***

**i) Average re-pricing maturity assigned to NMDs**

- Currently, the Bank has developed a behavioral model for NMDs to identify Core, Non-Core, Stable and Non-Stable amount of deposits. The Bank has

followed regulatory limits (in terms of cap for core deposits and cap for average maturity) for reporting of PRRBB. As per regulatory definition, all the NMDs at the Bank can be classified under Transactional category as specifically, following approach has been considered for NMDs cash flow slotting:

- Retail Portfolio – Core deposits are at 85% of total retail NMDs with longest maturity capped at 5 years i.e. 15% non-core NMDs have been slotted in overnight time maturity bucket.
- Wholesale Portfolio (Corporate and SME) – Core deposits are at 50% of total Wholesale NMDs with longest maturity capped at 4 years i.e. 50% non-core NMDs have been slotted in overnight time maturity bucket.
- Time weighted average maturity is used for cash flow slotting for Core NMDs up to mentioned longest re-pricing maturity.
- Average re-pricing maturity for
  - Wholesale portfolio: 1
  - Retail portfolio: 2.13
  - Overall Portfolio: 2.04.

**j) Longest re-pricing maturity assigned to NMDs**

- As mentioned above i.e. 5 years for Retail NMDs and 4 years for Wholesale (corporate and SME) NMDs.

**Table B**

SAR '000s Period	△EVE		△NII	
	Jun-18	Dec-17	Jun-18	Dec-17
Parallel up	1,047,714	456,380	711,017	720,632
Parallel down	-1,280,565	-555,562	-711,017	-720,632
Steeper	812,799	504,887		
Flattener	-664,426	-479,298		
Short rate up	261,404	138,780		
Short rate down	-204,939	-76,879		
Maximum	1,047,714	504,887	711,017	720,632
Period	Jun-18		Dec-17	
Tier 1 Capital	52,790,551		55,750,918	