Non Maturing Deposits

Background information on model updates Q3 2018

15 October 2018
Key messages

Net impact of Non Maturing Deposits model update on total NII minimal however shifts between segments

- A number of changes made will impact the internal compensation and allocation of NII going forward from Q3 2018
  - The model for Non Maturing Deposits (NMD) has been improved, leading to lower compensation for deposits
  - ALM/Treasury income will be allocated back to the business segments going forward
- Minimal impact to overall NII, approximately EUR 40m p.a., due to hedging cost
- Approximate impact for segment NII as of Q3 2018: Retail Banking EUR -30m, Private Banking EUR -10m, Commercial Banking EUR -20m, CIB EUR +20m and Group Functions EUR +40 million

Non-Maturing Deposits

- The updated model for non maturing deposits makes improvements to the way interest and liquidity risks are managed for deposits
- Overall a shorter maturity will be associated with deposits going forward
- This leads to a lower compensation (internal Funds Transfer Pricing) to the business for deposits

Allocation of ALM/Treasury NII

- NII of ALM/Treasury resulting from managing interest rate and liquidity risk will be allocated to business segments going forward
- A constant amount will be allocated in each quarter during the year
- Allocation to business segments proportional to equity allocated to segments
- For Q3 and Q4 2018 ALM/Treasury will allocate approximately EUR 50m each quarter to the business segments
- Over time, the impact is dependant on market interest rate movements and the development of client rates
Funds transfer pricing

Funds Transfer Pricing (FTP)

- FTP is used for internal pricing of funding between business segments and ALM/Treasury
  - For a client loan FTP charges interest to the business
  - For deposits FTP compensates the business for deposits raised
- Difference between FTP and client rates is reported as margin for the business
- FTP aims to lock in the margin over the lifetime of the contract

FTP pricing

- FTP pricing reflects the interest and liquidity cost to the bank
- FTP rate consists of an interest rate plus a liquidity spread
- Interest rate and liquidity spread depend, amongst others, on maturity of client loan and repayment features

ALM/Treasury hedges the interest rate risk resulting from the aggregate FTP position

- Hedging aims to maintain the duration of the interest position over total equity within a range of 2-4 years

Interest payments from clients and FTP

1) Liquidity spreads are based on the credit spread of ABN AMRO’s Senior Unsecured funding
Non maturing deposits and the replicating portfolio

FTP for Non-Maturing Deposits (NMD)

- For deposits ALM/Treasury manages a ‘replicating portfolio’
- The FTP passed on to the business is the interest income of the portfolio plus a liquidity premium
- The client rate for deposits is below the FTP rate received, generating a positive margin for the business

Replicating portfolio

- The replicating portfolio is a synthetic investment portfolio
- Portfolio is not on balance sheet but consists of receiver swaps
- The modelled behaviour of the deposits defines the maturity profile¹ of the replicating portfolio
- Maturing contracts and volume changes require continuous re-balancing of the replicating portfolio

¹ Maturity profile can also be expressed as an (average) duration
Improved management of interest rate risk for Non Maturing Deposits

**New NMD model leads to improved pricing**

- The updated NMD model makes a number of improvements
  - Separate models for savings and current accounts
  - Better client rate forecasting, quicker reaction to rate changes
  - Improved liquidity compensation, including LCR and NSFR effects and costs
  - Improved back-testing, stress-testing and NII-at-risk-calculations

- Improved model impacts the FTP for deposits
  - Approx. EUR 185bn of deposits impacted by model update
  - Shorter modelled duration for most deposit / client types (up to 0.5 year shorter) resulting in lower FTP rate
  - Lower FTP liquidity premium, also depending on deposit / client type

**Updated NMD model impacts segments as of Q3 2018**

- New model is not phased-in but implemented in one go as of Q3 2018
- Impact on segments for Q3 shown below

<table>
<thead>
<tr>
<th>Impact on NII versus previous model²</th>
<th>EUR million, estimate</th>
<th>Q3 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail Banking</td>
<td>-40</td>
<td></td>
</tr>
<tr>
<td>Commercial Banking</td>
<td>-35</td>
<td></td>
</tr>
<tr>
<td>Private Banking</td>
<td>-15</td>
<td></td>
</tr>
<tr>
<td>CIB</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Group Functions</td>
<td>90</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

1) Duration of the replicating portfolio mirrors the modelled duration of deposits. Investing at a lower duration leads to a lower yield and hence lower FTP
2) Impact on Retail Banking / Group Functions includes an update to the liquidity pricing of mortgages also implemented as of Q3 2018
Positive ALM/Treasury NII post NMD to be allocated

- Prior to NMD update, ALM/Treasury NII showed a limited deficit in recent years due to a negative net liquidity result.
- NMD update raises ALM/Treasury income
  - Net liquidity result improves as deposits receive a lower FTP liquidity compensation.
  - Interest result (ex liquidity) improves as shorter duration for deposits lowers FTP interest compensation to businesses.
- ALM/Treasury result modestly positive after NMD update.

ALM allocation starting Q3 2018

- As from Q3 2018 the ALM/Treasury NII related to managing of interest rate and liquidity risk will be allocated to the segments.
- For Q3 and Q4 2018 EUR 50m allocated\(^1\) each quarter.
- As of 2019 allocation will be set at start of year, based on prevailing conditions excluding incidentals.
- Allocation to segments proportional to allocated equity.
- Allocated NII to be excluded when assessing segment ROE.

\(^{1}\) Allocation based on ALM/Treasury run-rate over previous quarters approx EUR -100m per annum +/- impact NMD EUR 360m p.a. +/- EUR 40m hedging cost. Remaining difference reflects Securities Financing and NII relating to share of capital at Group Functions.