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Financial Risk&Regulation

Interest Rate Risk in the Banking Book – Finalized EBA proposals in a changed interest rate environment

Newsletter – November 2022

On October 20, 2022, the EBA published its finalized proposals on the regulation of Interest Rate Risk in the Banking Book (IRRBB). Three proposals have been published, of which the guidelines on interest rate and credit spread risks is applicable from June 30, 2023, and partially from December 31, 2023. The other two are RTS drafts on the standardized approach and supervisory outlier tests, which are still awaiting adoption by the European Commission. Parallel to the supervisory developments, the interest rate environment has also shown a strong transformation in the recent period, with higher interest rates than at the beginning of the year in all major economies. Adaptation to new market and regulatory conditions is expected to require significant efforts for institutions.

The final versions follow the directions outlined during the consultation

Although the recently released EBA proposals have not amended significantly compared to their consultation version, institutions must prepare for significant changes compared to the current regulatory environment. Compared to the previous state, the regulation is escalated, since the RTS adopted by the European Commission will handle directly on the most important compliance issues in in most cases, in contrast to the previous guidelines, where the supervisors had more room for interpretation. In connection with the current package, the following topics are highlighted and described in more detail in this newsletter:

- Limiting the sensitivity of net interest income (NII) in the framework of the supervisory outlier test, similar to that of the economic value of capital (EVE).
- Within the framework of the internal system, it is possible to deviate from the standard methods, but this is conditional on adequate risk coverage and a strong risk framework, highlighting the importance of validation.

• The identification of products with embedded options and their appropriate management appear more and more strongly in the new guidelines, and in the new interest environment the emphasis on risks is also changing.

In addition to the above, many other important professional expectations appear or connects closely to them. We have already touched on these in our previous newsletters, of which we highlight the February 2022 newsletter, where we described the consultation versions. The MNB's most important expectations are the sight deposit benchmark model presented in the 2020 ICAAP handbook (February 2020 newsletter) and the benchmark capital requirement calculation recommendations presented in the 2021 handbook (February 2021 newsletter). Interest rate risk is traditionally the focal point of ICAAP investigations, and the 9R supervisory data service package has also been renewed starting this year, which we presented in our January 2022 newsletter. In addition to these publications, we also had a newsletter on the evaluation of interest rate options in April 2022, which complements the previous ones well by describing practical methods.

A sudden change in the interest rate environment

Before we go into the description of the regulatory changes, it is worth highlighting the changes in the interest rate environment. In Hungary approx. from the middle of 2021, yields began to rise significantly, including BUBOR, IRS quotes, and the yield of government bonds. As Figure 1 shows, the pace of change has accelerated in 2022, with current yields are around or above 10% in many cases.

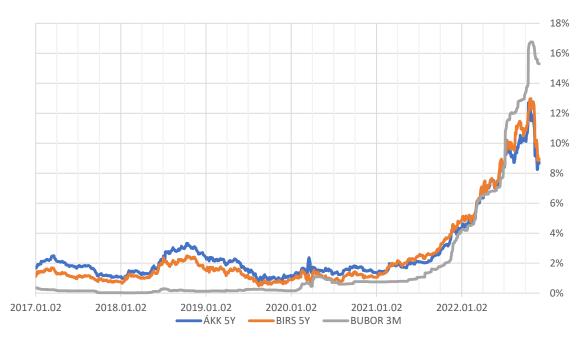


Figure 1 Development of interbank interest rates (%)

As a result of the yield increases, the banks' government bond portfolio also lost from its value, which is also shown in Figure 2, which was prepared by using the statistics of the MNB's financial accounts. In relation to the figure, we note that all debt securities are included, and the accounting treatment is not taken into account, so the numbers are indicative. Furthermore, government securities portfolios held by banks often serve hedging purposes or are themselves hedged by IRSs, which mitigates the negative effects.

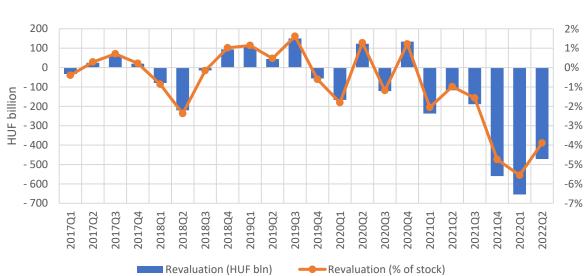


Figure 2 Revaluation of bonds held by monetary institutions

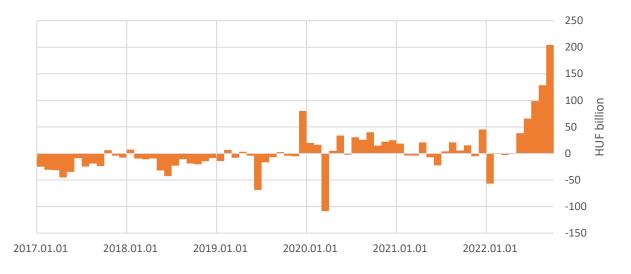
Changes in interest rates also affect deposit rates, but for now these only partially follow the changes in market interest rates. As Figure 3 shows, corporate fixed deposit interest rates follow the changes in BUBOR at a high speed, while the increase in the case of households is much more modest. The interest rates on demand deposits also show a slight increase, especially in the case of businesses.

Figure 3 Development of deposit interest rates



The last few years were generally not very lucky for bond holding investment funds, the amounts held by investors typically decreased due to the low yields. Now, however, the trend has sharply reversed in the high-yield environment, investors are already investing over HUF 100 billion per month in bond funds, as Figure 4 shows.





Limiting the sensitivity of net interest income

Of the two versions in the consultation draft, version "A" was included in the final proposal, where the NII change rate is compared to the Tier 1 capital, i.e. the treatment is similar to that of EVE. The threshold value is 2.5%, which is also shown in Equation 1.

Equation 1 Supervisory outlier test for NII

$$\frac{NII_{shocked} - NII_{base}}{T1 \text{ capital}} < -2.5\%$$

Compared to the previously proposed ideas, fair value changes are not part of the NII. The NII must be calculated based on the assumption that the balance sheet remains unchanged, where the expiring instruments are replaced with similar ones in terms of currency, amount and repricing period. The margins on the products must match the returns observed for similar products in the past period, except if market prices can be observed, because then the current spreads must be taken into account.

Expectations for internal systems

According to the guidelines, the acceptable internal system fulfills the expectations described therein, but the principle of proportionality must also be taken into account. If the internal system is not acceptable, the supervisory authorities should require the use of standard or simplified standard methods. The guidelines specifically emphasizes that the internal system is not acceptable if all material types of interest rate risks (gap, basis, and option risk) are not covered, or if it does not manage all significant risks of significant assets, liabilities, and off-balance sheet exposures. The Annex 1 of the guidelines describes the main methods, mentioning that different approaches can also be used.

In addition, it is an important expectation that all important parameters are calibrated, retested and reviewed regularly and documented. This must be supported by an appropriate corporate governance system, and the nature, magnitude and complexity of the risks arising from the institution's business model must also be taken into account.

Regarding the validation framework, the guideline establishes the 5 main elements, which will have to be followed in the case of the use of internal systems and standard methodologies.

- assessment of conceptual and methodological soundness, including appropriate development documentation;
- continuous monitoring of models, including process control and benchmarking;
- analysis of results, including post-testing of key internal parameters (e.g. stability of deposits, interest rate on prepayment of loans, redemption of deposits before maturity, pricing of instruments);
- thorough evaluation of expert opinions and judgments used in internal models; and
- validation of diversification assumptions.

Management of products contains options

Compared to the previous version of the guidelines, the modeling of option risks has become even more prominent. In this regard, all banking products must be examined to see if contain such risks. Out of these products, the following are generally relevant in banking operation:



- Demand deposits, the interest rates of which move less closely with market interest rates, but the stock typically moves with the interest rates offered by term deposits.
- Variable rate loans with an interest rate floor or cap, which were especially important in the low interest rate environment when market interest rates were in the negative range. This effect is currently relevant for contracts subject to the interest rate stop.
- Prepayable loans, especially in the case of fixed interest rates, where the lost profit is significant in case of larger interest rate changes. This is particularly significant in the case of new disbursements with high interest rates, where the motivation to refinance increases in a lower interest rate environment. To a lesser extent, but with loans with variable interest rates, prepayment also has an effect, because future interest margins are lost to the bank.
- Fixed-rate credit lines and pending loans, where the customer's decision to disburse the loan can be influenced by changes in the interest rate environment, thereby reducing the bank's profit.
- Bonds with embedded options, such as convertible, redeemable or callable bonds.

Next steps

The part of the guidelines concerning IRRBB is applicable from 30.06.2022, and the regulations relating to CSRBB must be fulfilled from 31.12.2023. The RTS on the supervisory outlier test is applicable in 20 days after its endorsement by the Commission and publication, i.e. the preparation time is short. In addition, the ECB also deems interest rate risks among the number one priorities in its <u>2022-2024</u> <u>supervisory program</u>. Banks must also adapt to the new situation by developing methodologies, models, calculation systems, internal data flow systems, and their regular validation.

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