

PUBLICATIONS AND OPERATIONS TIMELINE

Every Tuesday, BOA will make available, to all commercial banks, its estimate of the average autonomous factors (AF_t), average non-tradable liquidity (NTL_t) for the forecasted period and the benchmark allotment amount (M_t^{bench}).

Main Refinancing Operation - Announcement

* Market segmentation and the trade limits that banks have with each other, have lead BoA to assume different levels of non-tradable liquidity depending on market conditions

The Benchmark Main Refinancing Operation Allotment is the allotment necessary to allow the pro rata reserve requirement fulfillment by the end of the MRO. The allotment takes into account the autonomous factors forecast until the maturity of the Main Refinancing Operation and any liquidity imbalance, i.e. under or over proportional fulfillment of reserve requirements, accumulated from the beginning of the maintenance period. Liquidity imbalances may be accumulated due to past

underallotment, from deviation of the realized autonomous factors, from the forecast, and from deviations of the actual non-tradable excess liquidity from the level estimated ex ante.

The benchmark allotment amount is calculated using the formula¹ below and the information published on day t which is the announcement day.

$$M_t^{bench} = \frac{1}{H_t - X_t} \left[\underbrace{D_t \text{ RR} + ER - CA}_{\text{Accumulated Liquidity Imbalance}} + \underbrace{H_t \text{ RR} + ER - AF_t - NTL_t}_{\text{Future Liquidity Needs}} - \underbrace{H_t L + F - X_t * M^{mat}}_{\text{Liquidity Already Provided}} \right]$$

- t = the announcement day of the MRO.
- H_t = number of days from announcement day (including) to the day before (including) the maturity day of the MRO, for which the benchmark is calculated.
- X_t = number of days from announcement day (including) to the day before the settlement day of the MRO for which the benchmark is calculated.
- D_t = number of days from (and including) the first day of the reserve maintenance period to (and including) day $t-1$.
- RR = daily average required reserve for the relevant maintenance period.
- ER = forecasted daily average excess reserves for the relevant reserve maintenance period. BOA neutral liquidity conditions (around +100 million Lek, but it may choose to target any other level if deemed necessary).
- CA_t = average current account holdings from the beginning of the reserve maintenance period until day $t-1$.
- AF_t = estimate of average autonomous factors for the period covered by H_t . On the MRO announcement day this figure is published by Bank of Albania.
- NTL_t = estimate of average non- tradable liquidity for the period covered by H_t .
- L = expected daily average liquidity supplied by the longer-term operation in the period covered by H_t .
- F = expected daily average liquidity provided/absorbed by other operations (e.g. fine-tuning operations) in the period covered by H_t .
- M^{Mat} = size of maturing MRO.

¹ This is a modified version of the “Benchmark Allotment Formula” used by ECB.

EX-POST PUBLICATION

Everyday, information regarding market liquidity conditions on the previous day will be made public, including current account holdings, excess reserves, average excess reserves and level of autonomous factors. Information regarding transactions in the interbank market will be provided in this table as well.

Daily Liquidity Conditions	
Reserve maintenance period	24/10/2017 - 23/11/2017
Average reserves requirements	35,411.73
Figures as at	6/11/2017
Average current account holdings	552.29
Current account holdings	36,645.52
Use of the marginal lending facility	-
Use of the deposit facility	390.00
Net liquidity effect from Autonomous Factors	854.80
Amount of Liquidity Assumed to be Non -Tradable	-
Forecasts of autonomous factors	
07/11/2017 - 15/11/2017	
Estimate of average daily autonomous factors	1,842.50
Estimate of average daily non tradable liquidity	265.60

It is important to point out that, since autonomous liquidity factors are largely outside the direct control of the Bank of Albania, realized autonomous factors deviate ex post from the Bank of Albania's own forecast. The published forecast represents the best forecast the Bank of Albania has, based on its tools of the expected liquidity developments. But, the Bank of Albania takes no commitment on the quality of the forecast of factors outside its control.

On a regularly basis, the Bank of Albania reviews the quality of forecast. Based on the regular review of the forecasts used internally, the Bank of Albania has concluded that its forecast is unbiased i.e. although the realized autonomous factors may be higher or lower than the forecast, the differences over time cancel out so that the average forecast error over time is approximately zero.