

METHODOLOGY

FOR CALCULATION OF EUR VOLUME WEIGHTED DEPOSIT INDEX (VWDI) OF DSK BANK AD, APPLICABLE ON LOAN TRANSACTIONS WITH BUSINESS CLIENTS

Into force from 01.08.2023

1. Subject

This methodology regulates the method of calculating the EUR Volume Weighted Deposit Index (VWDI) as a reference interest rate applied by DSK Bank AD on credit transactions in EUR to business clients, as well as the method of its application and its periodic change.

2. Scope and definitions

The methodology is applicable to credit transactions with variable interest rate, granted to business clients, where EUR VWDI is applied as a reference interest rate.

For the purpose of this methodology:

- **"Variable interest rate on the loan"** is the interest rate on the loan, formed on the basis of a reference interest rate (variable component) and a fixed margin.
- **"Reference interest rate" (RIR)** is the variable component used as a basis for calculating the applicable Variable interest rate on a loan.
- EUR **"VWDI"** (Volume Weighted Deposit Index) is an index calculated by DSK Bank AD and used as a reference interest rate on loans to business clients in EUR.
- **"Credit transactions"** or **"credit"** are credit agreements, bank guarantees and factoring

3. Data source and method of calculation

The source of data for calculating the EUR VWDI is the Interest Rate Statistics of the Bulgarian national Bank (BNB) – table „Interest Rates and Volumes of Outstanding Amounts on Time Deposits of Non-financial Corporations Sector“, published on the BNB website: <https://www.bnb.bg/Statistics/StMonetaryInterestRate/StInterestRate/StIRIROnDeposits/StIRIROnDepositsNon-financialCorporations/index.htm?toLang= EN> and table „Interest Rates and Volumes of Outstanding Amounts on Time Deposits of Households Sector“, published on the BNB website: <https://www.bnb.bg/Statistics/StMonetaryInterestRate/StInterestRate/StIRIROnDeposits/StIRIROnDepositsHouseholdsAndNPISHs/index.htm>, hereinafter referred to as **"Interest Rate Statistics"** or **"Tables"**.

In calculating the value of the EUR VWDI, the Bank applies a calculation formula using the statistical data published by the BNB in the Interest Rate Statistics.

Only the data on interest rates and volumes for time deposits in EUR over 1 day to 3 months of the sectors Non-financial corporations and Households for the banking system in the Republic of Bulgaria are used.

The formula is as follows:

$$EUR\ VWDI = \frac{\sum_i^n (Rate_{business,i} * Volume_{business,i} + Rate_{individuals,i} * Volume_{individuals,i})}{\sum_i^n (Volume_{business,i} + Volume_{individuals,i})}$$

where:

Rate_{business,i} – average interest rate on time deposits in EUR of non-financial corporations per category *i*

Volume_{business,i} – volume of time deposits in EUR of non-financial corporations for category *i*

Rate_{individuals,i} – average interest rate on time deposits in EUR of households for category *i*

Volume_{individuals,i} – volume of time deposits in EUR of households for category *i*

i – category time deposits in EUR. In this case there are two categories:

- over 1 day to 1 month, and
- over 1 month to 3 months

To illustrate the calculation of the EUR VWDI the following example of Interest Rate Statistics as of May 31, 2023 is presented:

Table 1. Input data as of May 31, 2023

INTEREST RATES AND VOLUMES OF OUTSTANDING AMOUNTS ON TIME DEPOSITS OF NON-FINANCIAL CORPORATIONS SECTOR AND HOUSEHOLDS SECTOR															
		Non-financial corporations							Households						
		TIME DEPOSITS							TIME DEPOSITS						
		in EUR							in EUR						
		over 1 day up to 2 years						over 2 years	over 1 day up to 2 years						над 2 години
over 1 day up to 1 month	over 1 up to 3 months	over 3 up to 6 months	over 6 up to 12 months	over 1 up to 2 years	over 1 day up to 1 month	over 1 up to 3 months	over 3 up to 6 months		over 6 up to 12 months	over 1 up to 2 years					
Annual effective interest rate															
2023	I	0.50	0.33	1.10	0.08	0.20	0.10	0.22	0.08	0.01	0.01	0.11	0.10	0.31	0.82
2023	II	0.45	0.49	0.95	0.14	0.25	0.11	0.20	0.10	0.01	0.02	0.15	0.12	0.35	0.83
2023	III	0.78	0.96	1.26	1.18	0.36	0.14	0.20	0.12	0.01	0.02	0.14	0.14	0.43	0.84
2023	IV	0.89	1.35	1.32	1.10	0.38	0.36	0.20	0.13	0.01	0.02	0.14	0.15	0.46	0.85
2023	V	0.98	1.45	1.36	1.08	0.41	0.45	0.57	0.14	0.01	0.02	0.12	0.17	0.48	0.87
Volumes in million BGN															
2023	I	774.1	167.0	242.5	58.9	292.3	13.5	9.9	9032.8	2069.8	1013.6	1274.6	4106.2	568.7	698.2
2023	II	794.6	177.4	184.4	64.5	355.2	13.2	109.5	9170.2	2063.4	1007.3	1317.2	4122.2	660.1	688.1
2023	III	1083.8	188.0	237.3	159.4	485.2	13.9	109.4	9250.4	2075.1	1007.2	1329.5	4168.9	669.7	682.5
2023	IV	1114.3	223.2	225.6	182.3	465.2	18.1	109.4	9271.7	2070.6	1002.1	1334.7	4184.7	679.7	680.7
2023	V	1063.8	235.0	241.7	196.6	371.8	18.8	109.4	9274.5	2073.1	988.8	1300.0	4230.3	682.3	674.7

Data processing:

A. The categories of clients and the types of time deposits are identified. These are the following columns in the Tables:

- ✓ Non-financial corporations:
 - time deposits, in EUR, over 1 day to 1 month;
 - time deposits, in EUR, over 1 day to 3 months.
- ✓ Households:
 - time deposits, in EUR, over 1 day to 1 month;
 - time deposits, in EUR, over 1 day to 3 months.

B. For the respective month are the two rows of the Table corresponding to:

- ✓ effective annual interest rate
- ✓ volume

C. For each of the categories of clients and time deposits under item A, the effective annual percentage for EUR volume is multiplied.

D. The results received under item C are summed.

E. Separately the volumes for EUR for each client category and time deposits under item A are summed.

F. The result under item D is divided by the result under item E.

G. The result obtained under item F shall be rounded to the second decimal place.

The result:

A	Annual effective interest rate	Volumes in million BGN	Sum	C
	1 B	2 B	3 = 1*2	
Non-financial corporations				
•time deposits, in EUR, over 1 day to 1 month	1.45	235.0	341.7546828	
•time deposits, in EUR, over 1 day to 3 months	1.36	241.7	329.4244663	
Households				
•time deposits, in EUR, over 1 day to 1 month	0.01	2073.1	28.1947992	
•time deposits, in EUR, over 1 day to 3 months	0.02	988.8	18.0954426	
		E 3538.638	717.469	D
	F	Sum =	0.202752978	
	G	EUR VWDI =	0.20	

4. Order and frequency of announcement and period of validity

The data used by the Bank to calculate the index are published by the BNB at the end of each month on the basis of data on the banking system of previous month. The data is published at the following addresses:

Interest Rates on Deposits - Non-financial Corporations:

<https://www.bnb.bg/Statistics/StMonetaryInterestRate/StInterestRate/StIRIROnDeposits/StIRIROnDepositsNon-financialCorporations/index.htm>

Interest Rates on Deposits - Households and NPISHs:

<https://www.bnb.bg/Statistics/StMonetaryInterestRate/StInterestRate/StIRIROnDeposits/StIRIROnDepositsHouseholdsAndNPISHs/index.htm>

The Bank calculates the value of EUR VWDI monthly after the publication of the data, following the procedure described in item 3. The calculation is made no later than the last working day of each month.

The Bank publishes the calculated value of EUR VWDI on its website:

<https://dskbank.bg/%D0%B1%D0%B8%D0%B7%D0%BD%D0%B5%D1%81-%D0%BA%D0%BB%D0%B8%D0%B5%D0%BD%D1%82%D0%B8>

on the first business day of the calendar month following the publication of the relevant statistical data by the BNB.

The value of the EUR VWDI calculated in this way is applicable to all loans for which the Bank has agreed to apply EUR VWDI as a reference interest rate when calculating the variable interest rate.

The value of the EUR VWDI under signed contracts is updated monthly by the Lender on the date of the interest payment specified in the contract. The amendment to the EUR VWDI is valid and applies for the next interest period (from the respective date of the interest payment to the day

preceding the date of the next interest payment). The value of the EUR VWDI announced by the Bank on the first business day of the respective month shall be applied for each interest period.

Example:

- on 30th June 2023 on its website BNB published the Interest rate Statistics with the data as of 31st May 2023.
- The Bank calculates the value of the EUR VWDI
- On 1st July 2023 the Bank announces on its website the calculated value of the VWDI
- The value of the EUR VWDI announced on 1st July 2023 will be applied to calculate the interest on the loan for the next interest period (from the respective date of the interest payment to the day preceding the date of the next interest payment) specified in the loan agreement.

The first calculation of the EUR VWDI under the current methodology will be performed by the Bank on 31st July 2023 and its value will be announced on 1st August 2023.