

METHODOLOGY

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

1. Subject

This methodology regulates the method of calculating the Volume Weighted Deposit Index (VWDI) as a reference interest rate applied by DSK Bank EAD on credit transactions in BGN 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 VWDI is applied as a reference interest rate.

For the purposes 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.
- "VWDI" (Volume Weighted Deposit Index) is an index calculated by DSK Bank EAD and used as a reference interest rate on loans to business clients in BGN
- "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 VWDI is the Interest Rate Statistics of the Bulgarian National Bank (BNB) - table "Interest rates and volumes on balances of overnight deposits, time deposits and deposits redeemable at notice, of non-financial corporations and households sectors", published on the BNB website: <http://www.bnb.bg/Statistics/StMonetaryInterestRate/StInterestRate/StIRInterestRate/index.htm>, hereinafter referred to as "Interest Rate Statistics" or "Table".

In calculating the value of the 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 term deposits in BGN 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:

$$C\Delta\mathcal{H} = \frac{\sum_i^n (Rate_{business,i} * Volume_{business,i} + Rate_{individuals,i} * Volume_{individuals,i})}{\sum_i^n (Volume_{business,i} + Volume_{individuals,i})}$$

where:

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

Volume_{business,i} – volume of term deposits in BGN of non-financial corporations for category i

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

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

i - category time deposits in BGN. 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 VWDI, the following example of a database of Interest Rate Statistics as of June 30, 2018 is presented:

Table 1. Input data as of June 30, 2018

ЛИХВЕНИ ПРОЦЕНТИ И ОБЕМИ ПО САЛДА ПО ОВЪРНАЙТ-ДЕПОЗИТИ, СРОЧНИ ДЕПОЗИТИ И ДЕПОЗИТИ, ДОГОВОРЕНИ ЗА ПОЛЗВАНЕ СЛЕД ПРЕДИЗВЕСТИЕ, НА СЕКТОРИ НЕФИНАНСОВИ ПРЕДПРИЯТИЯ И ДОМАКИНСТВА															
		Нефинансови предприятия						Домакинства							
		Срочни депозити						Срочни депозити							
		в левове						в левове							
		над 1 ден до 2 години					над 2 години	над 1 ден до 2 години					над 2 години		
над 1 ден до 1 месец	над 1 до 3 месеца	над 3 до 6 месеца	над 6 до 12 месеца	над 1 до 2 години	над 1 ден до 1 месец	над 1 до 3 месеца		над 3 до 6 месеца	над 6 до 12 месеца	над 1 до 2 години					
ефективен годишен процент															
2018	I	0,31	0,32	0,29	0,13	0,28	0,92	1,47	0,27	0,02	0,05	0,14	0,32	0,96	1,91
2018	II	0,32	0,36	0,30	0,15	0,28	0,90	1,27	0,26	0,02	0,05	0,14	0,31	0,88	1,87
2018	III	0,28	0,29	0,25	0,15	0,27	0,88	1,28	0,24	0,02	0,05	0,13	0,30	0,81	1,81
2018	IV	0,22	0,24	0,26	0,13	0,17	0,77	1,37	0,23	0,02	0,05	0,13	0,29	0,76	1,77
2018	V	0,21	0,21	0,25	0,14	0,17	0,99	1,31	0,22	0,02	0,05	0,13	0,28	0,72	1,73
2018	VI	0,19	0,26	0,25	0,13	0,16	0,43	1,25	0,21	0,02	0,05	0,13	0,28	0,68	1,71
обеми в млн. лв.															
2018	I	1485,3	501,5	234,6	174,9	510,3	63,9	47,1	11220,6	1984,2	1063,0	1723,6	5468,8	981,1	1082,7
2018	II	1498,9	524,3	230,4	174,4	508,4	61,4	47,3	11246,5	2026,4	1062,8	1730,3	5469,1	957,9	1080,6
2018	III	1418,4	370,0	312,5	168,5	508,0	59,4	47,2	11278,0	2079,3	1062,2	1733,4	5461,5	941,6	1078,8
2018	IV	1815,6	324,5	378,0	182,9	874,6	55,6	50,0	11295,2	2124,5	1061,5	1733,7	5455,6	919,9	1080,0
2018	V	1818,0	276,8	390,2	172,6	943,3	35,0	48,8	11334,2	2167,4	1057,7	1735,4	5464,9	908,8	1074,6
2018	VI	1854,9	249,1	388,4	174,6	1012,9	29,9	47,5	11349,2	2198,9	1056,2	1742,8	5459,6	891,8	1072,5

Data processing:

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

- ✓ Non-financial corporations:
 - time deposits, in BGN, over 1 day to 1 month;
 - time deposits, in BGN, over 1 to 3 months.
- ✓ Households:
 - time deposits, in BGN, over 1 day to 1 month;
 - time deposits, in BGN, over 1 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 term deposits under item A, the effective annual percentage by volume is multiplied by BGN million.

D. The works received under item C are summed.

E. Only the volumes in BGN million for each of the categories of clients and time deposits under item A are summed separately.

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:

	Ефективен лихвен процент	Обем в млн. лв	Произведение	
A	1 B	2 B	3 = 1 * 2 C	
Нефинансови предприятия:				
• срочни депозити, в левове, над 1 ден до 1 месец;	0.2565	249.072	63.886968	
• срочни депозити, в левове, над 1 до 3 месеца.	0.25	388.447	97.11175	
Домакинства:				
• срочни депозити, в левове, над 1 ден до 1 месец;	0.0201	2198.862	44.1971262	
• срочни депозити, в левове, над 1 до 3 месеца.	0.0514	1056.202	54.2887828	
		E 3892.583	259.484627	D
		Сума =	0.066661296	F
		СДИ =	0.07	G

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 the previous month. The data are published at the following address:

<http://www.bnb.bg/Statistics/StMonetaryInterestRate/StInterestRate/StIRInterestRate/index.htm#>

The Bank calculates the value of the 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 the VWDI on its website

<https://dskbank.bg/бизнес-клиенти/корпоративно-банкиране/финансиране>

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

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

The value of the VWDI under concluded contracts is changed monthly by the Lender on the date of the interest payment specified in the contract. The amendment to the 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 VWDI announced by the Bank on the first business day of the respective month shall be applied for each interest period.

ex.:

- on July 31, 2018 on its website the BNB published the Interest Rate Statistics with the data as of June 30, 2018.
- The bank calculates the value of the VWDI
- On August 1, the Bank announces on its website the calculated value of the VWDI
- The value of the VWDI announced on August 1, 2018 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.