



## **NATIONAL BANK OF THE REPUBLIC OF NORTH MACEDONIA**

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Pursuant to Article 47 paragraph 1 item 6 of the Law on the National Bank of the Republic of Macedonia ("Official Gazette of the Republic of Macedonia" no. 158/2010) and Article 20 paragraph 1 of the Law on Consumer Protection in Case of Consumer Loan Agreements ("Official Gazette of the Republic of Macedonia" no. 51/2011), the National Bank of the Republic of Macedonia Council adopted the following

### **DECISION on the methodology for calculation of the annual percentage rate of total costs (Unofficial revised text)<sup>1</sup>**

#### **I. GENERAL PROVISIONS**

1. This Decision sets forth the manner of calculation of the annual percentage rate of total costs (hereinafter as: PRTC) on consumer loans approved by the creditor.

The purpose of PRTC calculation methodology is to provide a single method of calculating the total loan costs and comparison of the total cost rates in the selection of most favorable consumer loan terms.

Phrases used in this Decision shall have the meaning defined in the Law on Consumer Protection in Case of Consumer Loan Agreements. Matters not provided for in this Decision shall be regulated by the provisions of the Law on Consumer Protection in Case of Consumer Loan Agreements.

2. *PRTC* is an annual discount rate, i.e. ratio between the total loan costs and the total loan amount, which makes the discounted cash flows based on approved loan (outflows) equal to the discounted cash flows (inflows) based on the total amount charged to the consumer.

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<sup>1</sup> This is a revised text of the Decision on the methodology for calculation of the annual percentage rate of total costs. The revised text consist of the Decision on the methodology for calculation of the annual percentage rate of total costs (Official Gazette of the Republic of Macedonia No.91/11), the Decision on amending the decision on the methodology for calculation on the annual percentage rate of total costs (Official Gazette of the Republic of Macedonia No.152/11) and the Decision on amending the Decision on the methodology for calculating of the annual percentage rate of total costs (Official Gazette of the Republic of North Macedonia No.181/19).

3. Total loan costs, in terms of this Decision, shall include all costs: interests, fees, taxes and any other fees related to the consumer loan agreement, charged to the consumer at the loan approval and at the regular repayment, known to the creditor, other than notarial costs. Additional service fees related to the consumer loan agreement shall be included in the total loan costs, provided that the use of additional services is mandatory for loan approval or for its approval under indicated terms and if they are known to the creditor.

4. Cash flows based on consumer loan present all payments to the creditor (creditor's inflows) and all disbursements to the consumer (creditor's outflows) based on consumer loan agreement, that have to be made on a specific date. Cash flow includes all cash transfers between the creditor and the consumer, and cash transfers with third parties, as long as such transfers are directly related to loan approval, i.e. if they are a part of the terms for loan approval, use or repayment (for e.g. principal payment, charge of loan approval fee, loan servicing fee, repayments, fee for maintaining account recording all loan-related transactions, other costs related to paid-in cash, payments based on additional services, etc.).

Cash transfers with third parties, for the purposes of this decision, shall imply any cash flow from and to third parties made for the consumer account (installment paid-in by a third party for the consumer's account, transfer of funds from the loan to third person for the consumer account, etc.

5. When a bank, i.e. savings house - creditor approves deposit-backed consumer loan, the bank, i.e. the savings house shall also include, in the PRTC calculation, the impact of the discounted cash inflows and outflows based on such deposit.

6. Cash flow discounting shall use the true (calendar) number of days in the month and 365/366 days in the year.

PRTC shall be presented in two decimals, rounded up at the second decimal.

## **II. PRTC CALCULATION METHODOLOGY**

7. The PRTC calculation methodology shall include:

- Preparation of a Cash Flows Review;
- PRTC calculation method and
- Disclosure of pre-contractual information.

8. *PRTC* shall be calculated on the basis of credit terms applicable at the conclusion of consumer loan agreement.

In the calculation of PRCT, the creditor shall not include the amount of the costs that is unknown to them, but they will be required to clearly state that in the Cash Flows Review from Section III of this Decision and simultaneously to describe these costs in the form under item 16 of this Decision.

## **III. CASH FLOWS REVIEW FOR THE PURPOSES OF PRTC CALCULATION**

9. When establishing credit relation, the creditor shall prepare a Cash Flows Review clearly indicating the PRTC and shall submit it to the consumer. The cash flows review (form 1) shall be an integral part of the consumer's loan file.

Form 1 is an integral part of this decision.

10. The creditor shall provide a document stating that the consumer was delivered a Cash Flows Review and that they are aware of the terms of consumer loan agreement, including the PRTC. This document shall be an integral part of the consumer loan file.

11. Cash Flow Review preparation shall take account of contractual interest rate and shall assume regular execution of all transactions (cash flows) specified in the consumer loan agreement.

The creditor, in the Cash Flow Review, indicate the contractual, either fixed or variable. Provided that the consumer loan agreement specifies the period of fixed interest rate and the period of variable interest rate, such periods shall be indicated in the Cash Flow Review.

12. Foreign currency consumer loans (loans approved in foreign currency) shall be presented in the Cash Flow Review, in the currency of the concluded consumer loan agreement.

Consumer loans with FX clause shall, in the Cash Flow Review, be recognized in Denars, by applying exchange rate valid on the date of concluding the consumer loan agreement, i.e. on the date of preparation of Cash Flow Review (for the purposes of PRTC calculation, the Cash Flow Review shall be prepared on the date of conclusion of the agreement). The applicable exchange rate shall be indicated in the Cash Flow Review.

Should the creditor use, under the agreement, several exchange rates at the approval and the collection (bank's ask and bid rate, NBRM middle exchange rate, etc.), the Cash Flow Review shall indicate all used exchange rate valid on the date of preparation of Cash Flow Review, noting the purpose of each of those rates.

By way of derogation from paragraph 2 of this item, Denar consumer loans with FX clause could be presented in foreign currency, as long as a single exchange rate (e.g. NBRM middle exchange rate) is used at the loan disbursement and collection.

To calculate the PRTC on loans in foreign currency where fees and charges are calculated and charged in Denars, the creditor shall convert them in foreign currency by applying the NBRM middle exchange rate valid on the date of preparation of the Cash Flow Review.

13. Apart from the requirements in this section and in section IV of this decision, the Cash Flow Review shall also include costs referred to in item 14 subitem h, paragraph 2 of this Decision, and the name and address of the creditor, the level of PRTC and the date of its calculation and signature of the creditor's responsible person.

#### **IV. PRTC CALCULATION METHOD**

14. *PRTC* calculation uses the Cash Flow Review referred to in item 9 of this decision, which is filled-in by applying the following rules:

- a) Column 1 "Reference number" presents the ordinal number of the expected date of a cash flow. Ordinal number 0 (zero) states the date of the first cash flow (fee payment, approved loan, etc.). The last ordinal number presents the expected date of the last cash flow.
- b) Column 2 "Cash Flow Date" states the expected date of cash flow. For proper *PRTC* calculation, in case of tranche-disbursed loans, the creditor shall require from the consumer to indicate the expected dates tranche disbursement;
- c) Column 3 "Loan disbursement" presents the amount of loan, i.e. the portion of the loan (tranche) to be disbursed by the creditor, on the date indicated in column 2.
- d) Column 4 "Other disbursements" indicates any other possible disbursements by the creditor based on consumer loan agreement, other than disbursements based on cash deposit that serves as loan collateral - as long as the creditor is a bank or a savings house;
- e) Column 5 "Installment" presents the amount of installments (annuities) the consumer is required to pay-in on the indicated maturity dates. The Cash Flow Review shall indicate the elements of the installment;
- f) Column 6 "Repayment" states the amount of principal which is a part of the specific installment;
- g) Column 7 "Interest" indicates the amount of interest which is a part of the specific installment, and the amount of the commitment fee.
- h) Column 8 "Other fees" presents all other fees, i.e. payments chargeable to the consumer based on consumer loan agreement. Other payments shall be considered payments directly related to the terms for using consumer loans, including the additional mandatory services, charged to the consumer, taken into account in the *PRTC* calculation, such as:
  - Loan application processing fee;
  - Loan approval fee;
  - Loan administration fee (bank statement maintenance and submission, etc.);
  - Fee for keeping the collateral instrument (pledge);
  - Fees and charges related to the use of additional mandatory consumer loan services;
  - Other costs, fees and charges which are mandatory and directly related to credit .

*PRTC* calculation shall not include:

- Costs on consumer loan default;
- Costs, other than bid price, charged to the consumer when purchasing good or service, regardless of whether the payment is made in cash or on credit;

- Notarial services;

i) Column 9 "Loan outstanding" states the residue of loan repayable by consumer, which is an amount of outstanding loan from the previous date (previous row of column 9) less the amount of repaid portion of principle (column 6) on a specific date plus the amount of repaid loan (column 3) on a specific date;

All amounts, either inflows or outflows, in columns 3 to 9 shall be recognized with positive sign.

j) Column 10 "Cash Flow based on collateral (deposit)" presents cash flows based on consumer's cash deposit, used as collateral for the consumer loan made by the bank or savings house: pay-in and payout of deposit, deposit interest, potential costs on cash deposits, etc. Inflows are recognized with positive sign and outflows with negative sign;

k) Column 11 "Description" states brief description of cash flow on a specific date;

l) Column 12 "Net cash flow" is a difference between the sum of cash inflows from repaid principal (column 6), collected interest (column 7) and other payments (column 8) and the sum of cash outflows based on repaid loan (column 3) and other payments (column 4). Net cash flow could be with either positive or negative sign, where a positive sign shows net inflows for the creditor, and negative sign shows net outflow for the creditor on a specific date;

m) Column 13 "Discounted net cash flow" indicates the amount of discounted net cash flow of column 12. Discounting is made by using TCR, calculated in the following formula:

$$NCF_k \left( 1 + \frac{PRTC}{100} \right)^{-\frac{d}{t}}, \text{ where}$$

$NCF_k$  - net cash flow for the date  $k$  (column 12);

$PRTC$  - annual percentage rate of total costs, used for discounting of net cash flows, where the sum of discounted cash flows is equaled with zero.  $PRTC$  shall be calculated when other formula elements are know, from the answer or otherwise;

$\frac{d}{t}$  - number of days from date 0 to date  $k$ , presented in years.

$PRTC$  is an approximate solution of the formula below:

$$\sum_k \left[ NCF_k \left( 1 + \frac{PRTC}{100} \right)^{-\frac{d}{t}} \right] = 0$$

$\frac{d}{t}$  is a sum of the following three components:

- number of days from the zero date to 31.12 in the zero year relative to the total number of days in the year the zero date belongs to;
- number of years from the year of the zero date to the year of the cash flow subject of discounting ( $\kappa$ ), with these two years not being taken into account;
- number of days from 31.12 in the preceding year ( $\kappa - 1$ ), to the date of cash flow  $dat(\kappa)$ , relative to the number of days in the year of the cash flow subject of discounting ( $\kappa$ ), i.e.

$$\frac{d}{t} = \left[ \frac{yyyy(0)31.12 - dat(0)}{t(0)} \right] + [yyyy(\kappa) - yyyy(0) - 1] + \left[ \frac{dat(\kappa) - yyyy(\kappa - 1)31.12}{t(\kappa)} \right]$$

where,

$t_0 = 1 + yyyy(0)31.12 - yyyy(0)01.01$  - number of days in the zero year (365/366);

$t_k = 1 + yyyy(k)31.12 - yyyy(k)01.01$  - number of days in the year of cash flow (365/366);

$dat(0)$  is the date of zero date,

$dat(\kappa)$  is the date of cash flow subject of discounting.

The calculated TCR on deposit-backed consumer loans (loans approved exclusively by banks and savings houses), shall be further adjusted for the discounted inflows and outflows based on such deposit, by using the following formula:

$$PRTC \text{ adjusted} = PRTC \times \frac{TDLR}{TDLR - TDFC}$$

where,

TDLR is the total amount of discounted loan repayment, calculated as specified in subitem n) of this item; whereas

TDFC is the total amount of discounted cash flow of collateral calculated according to subitem o) of this item.

n) Column 14 "Discounted loan repayment" presents the discounted amount of repaid consumer loan for the date  $\kappa$ . Discounting is made by using TCR in the following formula:

$$DLR_k = \left[ (LR_k) \left( 1 + \frac{TCR}{100} \right)^{-\frac{d}{t}} \right], \text{ where}$$

$DLR_k$  - discounted loan repayment for the date  $\kappa$ ;

$LR_k$  - loan repayment for the date  $\kappa$  (column 3).

The total amount of discounted repayment of loan (TDRL) is the sum of each discounted loan repayments (row "Total" for column 14)

$$TDRL = \sum_k DLR_k$$

o) Column 15 "Discounted cash flow of collateral" states the discounted amount of cash flow based on collateral (consumer's cash deposit approved exclusively by bank or savings house). Discounting is made by using TCR in the following formula:

$$DFC_k = \left[ (FC_k) \left( 1 + \frac{TCR}{100} \right)^{-\frac{d}{t}} \right], \text{ where}$$

$DFC_k$  - discounted flow of collateral on date  $k$ ;

$FC_k$  - cash flow of collateral (cash deposit) for date  $k$  (column 10).

The total amount of discounted cash flow of collateral (TCFC) is a sum of all discounted flows of collateral (row "Total" for column 15)

$$TDFC = \sum_k DFC_k$$

15. *TCR*, *TCR* adjusted and auxiliary columns 12, 13, 14, and 15 shall be mandatory for the Cash Flow Review.

As an exception, auxiliary columns 12, 13, 14 and 15 shall not be included in the Cash Flow Review submitted to the consumer.

The creditor shall prepare individual Cash Flow Review including the TCR for consumer lines of credits, where a special loan agreement is signed for each drawing, specifying the terms of loan.

Failure to calculate TCR (impossibility to anticipate dates and amounts of cash flows - such as in case of loans based on credit cards, overdrafts and permitted overdrafts, etc.), the creditor shall notify the consumer on all types of costs at their expense, including the interest rate.

## **I. DISCLOSURE OF PRE-CONTRACTUAL INFORMATION**

16. Prior to the conclusion of consumer loan agreement, the creditor or credit intermediary shall provide a form that indicates pre-contractual information on offered loan terms, in writing or other durable medium.

The format and contents of the form of this item shall be specified by the Governor in special Instructions.

## **II. TRANSITIONAL AND CLOSING PROVISIONS**

17. Provisions of this Decision shall not apply to consumer loan agreements concluded prior to its enforcement.

The provisions of this Decision pertaining to the creditor, shall also refer to the credit intermediary.

18. This Decision shall supersede the Decision on the methodology for calculation of the annual percentage rate of total costs ("Official Gazette of the Republic of Macedonia" no. 105/2007 and 42/2011).

19. This Decision shall enter into force on the eighth day of the date of its publication in the "Official Gazette of the Republic of Macedonia" and shall start being applied on October 1, 2011.

**D. no. 02-15/VII-1/2011**  
**30.06.2011**  
**Skopje**

**Dimitar Bogov**  
**Governor**  
  
**Chairman**  
**of the National Bank of the Republic**  
**of Macedonia Council**