

Pursuant to Article 15, paragraph 1 of the Law on the National Bank of Serbia (RS Official Gazette, Nos 72/2003, 55/2004 and 44/2010) and Article 11, paragraph 7, Article 17, paragraph 9 and Article 25 of the Financial Services Consumer Protection Law (RS Official Gazette, No 36/2011), the Executive Board of the National Bank of Serbia hereby issues the following

**DECISION**  
**ON TERMS AND METHOD OF CALCULATING THE EFFECTIVE**  
**INTEREST RATE AND ON THE LAYOUT AND CONTENT OF FORMS**  
**HANDED OUT TO CONSUMERS**

**Basic provisions**

1. This Decision sets out in detail the terms and method of calculating the effective interest rate, the layout and content of forms in which the offer to the consumer is laid out and the form and content of loan/financial lease repayment schedules and the deposit payment schedule, as well as the list of mandatory elements of a loan/financial lease/deposit.

2. For the purpose hereof:

1) *Consumer* means a financial service consumer as defined by the law governing the protection of financial service consumers;

2) *Discounting* means converting all cash flows into present values, i.e. all cash receipts and outlays arising from the use of financial services by applying the discount rate;

3) *Deposit payment schedule and/or loan/lease repayment schedule* (hereinafter: leasing) is a table which lists chronologically all cash flows (receipts and outlays) arising from the deposit and/or loan/lease taken and forms an integral part of the deposit and/or loan/lease contract;

4) *Down payment/up-front payment in a loan/lease contract* means placement of funds by the borrower to finance a percentage of the loan/lease.

**Terms and method of calculating the effective interest rate**

3. The effective interest rate shall be a per annum discount rate at which all cash flows arising from the use of financial services are converted into present values. It shall be calculated using the trial method and linear interpolation, through the following formula:

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

where:

$NNT_k$  - net cash flow, i.e. balance remaining after deducting the consumer's cash outlays from cash receipts in a given time period  $k$ ;

$d/t$  - sum total (1) of the number of days from the zero period date until 31 December of that year, as a share of the number of days in the zero period year, (2) number of years from the cash flow year being discounted until the zero period year, but excluding these two years, and (3) the number of days from the date of the beginning of the cash flow being discounted, as a share of the number of days in the year of that cash flow from 31 December of the previous year - calculated using the following formulas:

$$d/t = \left[ \frac{yyyy(0).12.31. - dat(0)}{t(0)} \right] + [yyyy(k) - yyyy(0) - 1] + \left[ \frac{dat(k) - (yyyy(k) - 1).12.31.}{t(k)} \right]$$

$$t(0) = 1 + yyyy(0).12.31. - yyyy(0).01.01.$$

$$t(k) = 1 + yyyy(k).12.31. - yyyy(k).01.01.$$

, where

$dat(0)$  – zero period date,  $dat(k)$  -period date of the cash flow subject to discounting.

The effective interest rate shall be disclosed in percentages, with two decimal places and the rounding of the second decimal place, and apply on the calculation date.

The effective interest rate shall be equal to or higher than the contracted interest rate.

Notwithstanding paragraph 3 of this Section, where the effective interest rate, calculated as set out herein, is lower than the contracted interest rate or cannot be calculated (e.g. in the case that the amount of deposit used as a collateral for the loan is relatively high compared to the loan amount), the bank shall inform the consumer thereof and explain why the effective interest rate is lower and/or why the bank cannot provide an economically sound solution (e.g. where the rate has a negative value or the value cannot be calculated).

For the purpose of calculating the effective interest rate, the bank and the lessor shall use the payment and/or repayment schedules stipulated

in Sections 14, 15 and 16 of this Decision.

4. Cash flows referred to in Section 3, paragraph 1 herein shall mean all cash receipts and all cash outlays borne by the consumer arising from the use of loan/lease and/or deposit placement, where time of occurrence is regulated by the contract, except for loans/lease and/or deposits from Sections 5–10 herein, where time of occurrence and cash flow amount shall be determined pursuant to those Sections.

5. For loans/deposits/leases whose elements used in calculation of the effective interest rate are contracted as variable, the rate shall be calculated using the value of such elements on the date of calculation.

6. For loans where the consumer, pursuant to the contract, decides on withdrawal dynamics (lines of credit, current account overdrafts, credit cards etc.), the effective interest rate shall be calculated under the assumption that the approved loan will be immediately disbursed in full.

For loans where the consumer, pursuant to the contract, decides on withdrawal dynamics, but adheres to limits – amounts and periods of withdrawal as specified in the contract, the effective interest rate shall be calculated under the assumption that the funds will be withdrawn at the earliest date envisaged by the contract, up to the limit set therein.

7. For loans/leases where the contract sets different interest rates for different withdrawal periods specified in the contract or different disbursement amounts, the effective interest rate shall be calculated under the assumption that the funds will be withdrawn and disbursed at the highest interest rate set by the contract.

8. For loans where the consumer, pursuant to the contract, decides on the amount of repayment in excess of the minimum amount set by the contract (e.g. credit cards), the effective interest rate shall be calculated under the assumption that the repayment will be equal to the minimum contracted amount.

9. For loans/leases where the contract envisages several possible repayment dates, the effective interest rate shall be calculated under the assumption that the repayment will be effected at the earliest date set by the contract.

10. For sight deposits and loans whose repayment amount and loan term are not set by the contract, the effective interest rate shall be calculated under the assumption that the deposit and/or loan term is one year and that payment/repayment shall be made in twelve equal monthly instalments.

11. A bank and a lessor shall, in calculating the effective interest rate in the pre-contract phase (advertising and offering) do due diligence and make an estimate of all the elements used in calculating the rate whose exact amounts are not known at that phase.

Notwithstanding paragraph 1 hereof, where the effective interest rate is calculated for advertising purposes, the bank shall not be obliged to assess costs of auxiliary services prerequisite for the conclusion of the loan/lease contract.

### **Layout and content of forms handed out to consumers**

12. A bank and a lessor shall provide to the consumer, prior to concluding a contract on deposit, loan/payment card, lease, current account overdraft and/or opening and handling an account, an offer laid out on the respective form from Annex 1.

12a. A bank and a lessor shall deliver to the consumer the offer from Section 12 hereof in dinars at a fixed nominal interest rate and/or in case they do not have such product – an offer in dinars at a variable nominal interest rate, unless the consumer requires that the service be offered in the dinar equivalent of a foreign currency and/or in a foreign currency, in accordance with regulations governing foreign exchange operations.

If the consumer, in accordance with paragraph 1 hereof, required that he be offered a loan/lease contract at a variable nominal interest rate and/or in a foreign currency or by contracting a currency clause, a bank and/or lessor shall inform the consumer, by delivering the offer from Section 12 hereof, also about borrowing risks in the appropriate form of Annex 1a, as follows:

– about the risks of borrowing at a variable nominal interest rate and risks of borrowing in a foreign currency or by contracting a currency clause – in Form RZ-1;

- about the risks of borrowing at a variable nominal interest rate (borrowing in dinars) – in Form RZ-2;
- about the risks of borrowing in a foreign currency or by contracting a currency clause – in Form RZ-3.

12b. A bank and a lessor shall enable on their websites the calculation of annuities and an overview of the loan/lease repayment schedule in the event of individual and joint change of the variable element of the nominal interest rate and the dinar exchange rate at any moment of repayment, and shall set up a link to the part of the NBS website with relevant calculators.

13. A bank and a lessor shall hand out to the consumer, along with the copy of the concluded contract on deposit/loan, current account overdraft and/or lease, the list of mandatory elements of the contract laid out on the respective form from Annex 2.

A bank and a lessor shall hand out to the consumer, along with a copy of the concluded contract on deposit (except for sight deposit), loan, and/or lease, in addition to the list of mandatory elements of such contract referred in paragraph 1 herein, the payment/repayment schedule laid out on the respective form of Annex 3.

14. In Annex 3, Form 1a – DEPOSIT PAYMENT SCHEDULE shall be filled in as follows:

1) column *Period* shall include the sequential number of the period in which a particular cash flow occurred. Zero period shall be the period of the first cash flow or the agreed date of deposit placing, whichever is earlier. The last period shall be the period of the last cash flow;

2) Column *Maturity Date* shall include the date of occurrence of a particular cash flow set by the contract, and/or the assumed date of occurrence of the cash flow where the contract does not set a specific date (with reference to the calendar number of days in a month and 365/366 days in a year);

3) column *Deposit Paid* shall include the amount of the deposit (and/or a portion of the deposit) to be paid in a bank account;

4) column *Payments to Client* shall include the amounts that the bank apportions to the consumer and adds to the deposit (e.g. accrued interest, bonus payments throughout the deposit term or upon its renewal, etc.);

5) column *Payments Against Deposit* shall include other payments made by the consumer pursuant to the contract that are not added to the deposit (e.g. application processing fee, account maintenance fee etc.);

6) column *Other Payments Against Deposit* shall include all charges to the consumer debited against the deposit (e.g. account maintenance fee, tax liabilities etc.);

7) column *Deposit Paid* shall include the amount of deposit paid out to the consumer;

8) column *Interest Paid* shall include the amount of interest paid out to the consumer;

9) column *Other Payments* shall include other payments by the bank to the consumer pursuant to the deposit contract (e.g. payment of the premium on deposit subject to fulfilment of certain conditions and similar payments);

10) column *Balance of Deposit* shall include the deposit balance in a particular period;

11) column *Description* shall include a short description of a cash flow in a particular period;

12) column *Net Cash Flow* shall include the cash flow constituting the difference between the sum total under columns 3, 5 and 6, and the sum total under columns 7, 8 and 9 in a particular period;

13) column *Discounted Net Cash Flow* shall include the discounted amount of the net cash flow in column 12, calculated by using the following formula:

$$NNT_k \left(1 + \frac{EKS}{100}\right)^{-(d/t)}, \text{ where}$$

$NNT_k$  – net cash flow in period k,

$EKS$  – rate that denotes the effective interest rate in the discount factor;

14) field *Total* in column 13 shall include the sum total of all discounted net cash flows in particular periods. The sum must be equal to zero.

15. In Annex 3, Form 1b - LOAN REPAYMENT SCHEDULE shall be filled in as follows:

1) column *Period* shall include the sequential number of the period in

which a particular cash flow occurred. Zero period shall be the period of the first cash flow or the agreed loan availability date, whichever is earlier. The last period shall be the period of the last cash flow;

2) column *Maturity Date* shall include the date of occurrence of a particular cash flow set by the contract, and/or the assumed date of occurrence of the cash flow where the contract does not set a specific date (with reference to the calendar number of days in a month and 365/366 days in a year);

3) column *Loan Disbursement* shall include the amount of loan and/or tranches to be disbursed on a particular date, excluding the loan down payment;

4) column *Other Payments* shall include other payments by the bank to the consumer pursuant to the loan contract (e.g. excess interest payment etc.);

5) column *Annuity* shall include the contracted loan annuities paid in a particular period;

6) column *Payment of Principal* shall include a portion of the principal from the annuity;

7) column *Interest Payment* shall include the amount of interest to be paid from annuity, as well as the interim interest;

8) column *Other Payments/Charges* shall include payments that a loan consumer makes pursuant to the loan contract, as follows:

- application processing fee,
- loan approval fee,
- annual loan administration fee,
- fees for unfunded commitments under lines of credit,
- loan insurance premium, if prerequisite for the loan,
- charges for opening and keeping of account that are prerequisite for loan approval,
- other charges arising from auxiliary services that are prerequisite for the loan disbursement, borne by the consumer (e.g. fixed fee for processing the insurance application, fee for issuance of the excerpt from the land registry, real estate and movable property appraisal fee, fee for verifying a mortgage deed, mortgage registration fee, fee for obtaining information from the borrower database etc.);

9) column *Balance of Loan* shall include the loan balance in a particular period;

10) column *Deposit Cash Flow* (collateral) shall include all cash flows under the deposit placed pursuant to the deposit contract (placement and payment of deposit and interest on deposit), whereby deposit placement and calculated interest on deposit are shown with a plus sign, while

payment of deposit and the appertaining interest are shown with a negative sign;

11) column *Description* shall include a short description of a cash flow in a particular period;

12) column *Net Cash Flow* shall include the difference between the sum total under columns 6, 7, 8 and 10 and the sum total under columns 3 and 4 in a particular period, which may have a plus or minus sign;

13) column *Discounted Net Cash Flow* shall include the discounted amount of the net cash flow from column 12, calculated by using the following formula:

$$NNT_k \left(1 + \frac{EKS}{100}\right)^{-(d/t)}, \text{ where}$$

$NNT_k$  – net cash flow in period k,

$EKS$  – rate that denotes the effective interest rate in the discount factor;

14) field *Total in* column 13 shall include the sum of all discounted net cash flows from particular periods. The sum must be equal to zero.

Column *Other payments/charges* (column 8) Form 1b - LOAN REPAYMENT SCHEDULE shall not include:

- charges incurred due to breach of contract provisions (default interest, penalties etc.),
- account maintenance charges if the consumer had an account with the bank prior to loan application,
- charges arising from purchase of goods, paid in cash or in another way,
- postal, telegram, telefax and similar charges,
- document certification fee (except for mortgage deed).

16. In Annex 3, Form 1c – LEASE REPAYMENT SCHEDULE shall be filled in as follows:

1) column *Period* shall include the sequential number of the period in which a particular cash flow occurred, assuming that:

- lease asset takeover by the consumer - lessee represents his/her cash inflow in the amount of net financing,
- zero period represents the period in which the first cash flow



occurred,

- cash inflow of the lessor always occurs in the zero period;
- 2) column *Maturity Date* shall include the exact maturity date (according to the calendar number of days in the month and 365/366 days in the year);
- 3) column *Amount of Net Financing* shall include the lessor's cash inflow, in line with the assumptions from provision 1) of this paragraph;
- 4) column *Rental Instalment* shall include the amount of the rental instalment that the lessee pays to the lessor in a particular period;
- 5) column *Depreciated Value of Lease Asset* shall include a part of the rental instalment in a particular period relating to repayment of the net financing amount - the last period in this column shall also contain the residual value of the lease asset if it has been so envisaged by the lease contract;
- 6) column *Interest* shall include a part of the rental instalment in a particular period relating to interest;
- 7) column *Other Payments* shall include payments arising from lease that the lessee makes pursuant to the lease contract, as follows:
  - approval fee (application processing),
  - value added tax calculated on approval charges (application processing),
  - value added tax calculated on interest portion of the rental instalment,
  - interim interest costs,
  - value added tax calculated on interim interest costs,
  - fee for entry of the lease contract in the financial lease register plus the value added tax,
  - lease asset repurchase option fee,
  - insurance premium, if insurance is prerequisite for leasing,
  - other charges incurred in leasing (e.g. fee for obtaining information from the borrower database etc.);
- 8) column *Non-Depreciated Value of Lease Asset* shall include the unpaid part of the net financing amount;
- 9) column *Description* shall include a short description of a cash flow in a particular period;
- 10) column *Net Cash Flow* shall include the cash flow constituting the difference between the sum total under columns 5, 6 and 7, and column 3 in a particular period;
- 11) column *Discounted Net Cash Flow* shall include the discounted amount of net cash flow from column 10, calculated by using the following formula:

$$NNT_k \left(1 + \frac{EKS}{100}\right)^{-(d/t)}, \text{ where}$$

$NNT_k$  – net cash flow in period k,  
 $EKS$  – rate that denotes the effective interest rate in the discount factor;

12) field *Total in* column 11 shall include the sum of all discounted net cash flows in particular periods. The sum must be equal to zero.

Column *Other payments/charges* (column 7) Form 1c – LEASE REPAYMENT SCHEDULE shall not include:

- charges incurred due to breach of contract provisions (default interest, penalties etc.),
- postal, telegram, telefax and similar charges,
- document certification fee.

### *Annexes*

17. The forms referred to herein are enclosed with this Decision and are integral thereto.

### **Application of provisions of this Decision to other payment service providers and electronic money issuers**

17a. If the consumer showed interest in the contract on loan offered by other payment service provider or electronic money issuer, the provisions of this Decision which apply to banks shall also apply to other payment service providers and electronic money issuers.

### **Final provisions**

18. As of the effective date of this Decision, the Decision on the General Terms of Business Applied by Banks in Relations with Natural Person Clients (RS Official Gazette, No 74/2009) and Guidelines for the Implementation of the Decision on the General Terms of Business Applied by Banks in Relations with Natural Person Clients (RS Official Gazette, No 74/2009) shall cease to be valid.

19. This Decision shall enter into force on the day following its

publication in the RS Official Gazette, and shall be applied as of 5 December 2011.

NBS Executive Board No 70  
1 September 2011  
Belgrade

Chairman  
of the Executive Board  
of the National Bank of Serbia  
Governor  
of the National Bank of Serbia  
Dr Dejan Šoškić