



HNB

**GUVERNER**

Pursuant to Article 304, item (1) of the Credit Institutions Act (Official Gazette 159/2013, 19/2015 and 102/2015) and in connection with Article 17 of the Act on Consumer Housing Loans (Official Gazette 101/2017), Article 13, paragraph (3) of the Credit Unions Act (Official Gazette 141/2006, 25/2009 and 90/2011) and Article 43, paragraph (2), item (9) of the Act on the Croatian National Bank (Official Gazette 75/2008 and 54/2013), the Governor of the Croatian National Bank hereby issues the

## **Decision on the effective interest rate**

### **I GENERAL PROVISIONS**

#### **Subject matter**

##### **Article 1**

(1) This Decision prescribes the calculation methodology and elements for the purposes of the uniform calculation of the effective interest rate (hereinafter referred to as 'EIR').

(2) This Decision transposes into the legal system of the Republic of Croatia Directive 2014/17/EU of the European Parliament and of the Council of 4 February 2014 on credit agreements for consumers relating to residential immovable property and amending Directives 2008/48/EC and 2013/36/EU and Regulation (EU) No 1093/2010 (OJ L 60, 28.2.2014).

#### **Entities subject to the Decision**

##### **Article 2**

(1) Entities subject to this Decision shall be the following entities that provide services to consumers:

1. credit institutions with head offices in the Republic of Croatia that have been authorised by the Croatian National Bank;
2. credit institutions of the Member States that have established branches within the territory of the Republic of Croatia in accordance with the law governing the operation of credit institutions or that have been authorised to provide mutually recognised services directly within the territory of the Republic of Croatia;
3. branches of third-country credit institutions that have been authorised by the Croatian National Bank to establish a branch of a third-country credit institution;
4. credit unions with head offices in the Republic of Croatia that have been authorised by the Croatian National Bank;
5. tied credit intermediaries with head offices in the Republic of Croatia that have been authorised by the Croatian National Bank to provide credit intermediation services; and
6. credit intermediaries from other Member States that have been authorised to provide credit intermediation services within the territory of the Republic of Croatia.

(2) For the purposes of this Decision, when a credit union offers and grants loans to its members, such members shall be considered consumers.

## **Definitions**

### **Article 3**

The terms used in this Decision shall have the following meaning:

- 1) 'Effective interest rate' means an interest rate that represents the total cost of the loan to the consumer, expressed as an annual percentage of the total amount of the loan, and equates, on an annual basis, to the present value of all existing or future commitments (drawdowns, repayments and fees) agreed by the creditor and the consumer.
- 2) 'Compound interest calculation method' means an interest calculation method where the calculated interest for the first accounting period is added to the original principal. In the following accounting period interest is thus calculated on the original principal increased by the amount of interest from the first period. In each subsequent accounting period, interest is calculated on the remaining principal increased by the interest calculated for the previous accounting period.
- 3) 'End-of-period interest calculation' means an interest calculation method where interest is calculated and added to the principal, or paid out, at the end of the accounting period. In such a calculation, interest is calculated with respect to the original amount, i.e. principal at the beginning of the basic accounting period.
- 4) Unless otherwise provided for in this Decision, the definitions under the law governing consumer loans shall apply for the purposes of this Decision.

## **II METHODOLOGY FOR EIR CALCULATION**

### **Method of EIR calculation**

#### **Article 4**

EIR shall be calculated as an end-of-period rate of interest, reported on an annual basis, by applying the compound interest calculation method, by means of which discounted cash inflows are balanced against discounted cash outflows, which refer to loans granted or deposits received.

## Mathematical background for EIR calculation

### Article 5

(1) The basic equation for EIR calculation equates, on an annual basis, the total present value of drawdowns on the one hand and the total present value of repayments and payments of fees on the other hand, i.e.:

$$\sum_{k=1}^m C_k (1 + X)^{-t_k} = \sum_{l=1}^{m'} D_l (1 + X)^{-s_l},$$

where symbols have the following meanings:

$X$  = EIR;

$m$  = the number of the last drawdown;

$k$  = the number of a drawdown, thus  $1 \leq k \leq m$ ;

$C_k$  = the amount of drawdown  $k$ ;

$t_k$  = the interval, expressed in years and fractions of a year, between the date of the first drawdown and the date of each subsequent drawdown;

thus  $t_1 = 0$ ;

$m'$  = the number of the last repayment or payment of fees;

$l$  = the number of a repayment or payment of fees;

$D_l$  = the amount of a repayment or payment of fees;

$s_l$  = the interval, expressed in years and fractions of a year, between the date of the first drawdown and the date of each repayment or payment of fees.

(2) In EIR calculation, the entities subject to the Decision, referred to in Article 2 of this Decision, shall take into account the following:

- a) The amounts paid by both parties at different times shall not necessarily be equal and shall not necessarily be paid at equal intervals.
- b) The starting date shall be that of the first drawdown.
- c) Intervals between dates used in the calculations shall be expressed in years or in fractions of a year. A year is presumed to have 365 days (or 366 days for leap years), 52 weeks or 12 equal months. An equal month is presumed to have 30.41666 days (i.e. 365/12) regardless of whether or not it is a leap year.

Where intervals between dates used in the calculations cannot be expressed as a whole number of weeks, months or years, the intervals shall be expressed as a whole number of one of those periods in combination with a number of days. Where using days:

1. every day shall be counted, including weekends and holidays;

2. equal periods and then days shall be counted backwards to the date of the initial drawdown;
  3. the length of the period of days shall be obtained excluding the first day and including the last day and shall be expressed in years by dividing this period by the number of days (365 or 366 days) of the complete year counted backwards from the last day to the same day of the previous year.
- d) The result of the calculation shall be expressed with an accuracy of two decimal places. If the figure at the following decimal place is greater than or equal to 5, the figure at the preceding decimal place shall be increased by one.
- e) The equation can be rewritten using a single sum and the concept of flows ( $A_k$ ), which will be positive or negative, in other words either paid or received during periods 1 to n, expressed in years, i.e.:

$$S = \sum_{k=1}^n A_k (1 + X)^{-t_k} ,$$

where  $S$  is the present balance of flows. If the aim is to maintain the equivalence of flows, the value will be zero.

(3) By way of derogation from paragraph (2), item (c) of this Article, the actual (calendar) number of days in a month and 365/366 days in a year shall be used in the calculation of the EIR for deposits.

## **EIR calculation**

### **Article 6**

(1) EIR calculation shall be based on the assumption that the provisions of the agreement are to remain valid for the period agreed and that the creditor and the consumer will fulfil their obligations under the terms and by the dates specified in the agreement.

(2) In EIR calculation during the contractual relationship, a credit institution shall calculate the EIR on the calculation date by assuming the drawdown of the remaining principal in the accounting period for which EIR calculation is required, taking into account all other assumptions of this Decision as if the EIR was calculated during the negotiation of the credit relationship. All cash flows that preceded EIR calculation during the contractual relationship shall be disregarded, including all cash flows based on the security cash deposit that has been paid before the date of EIR calculation.

(3) In the case of loan agreements containing provisions allowing variations in the interest rate and, where applicable, in the fees contained in the EIR but unquantifiable on the date of calculation, the EIR shall be calculated on the assumption that the interest rate and other costs will remain fixed in relation to the level set on the date of the conclusion of the agreement.

(4) In EIR calculation, the entities subject to the Decision, referred to in Article 2 of this Decision, shall use the assumptions referred to in Article 7 of this Decision.

(5) For agreements on consumer housing loans, the total cost of the loan in terms of this Decision shall be defined in Article 17 of the Act on Consumer Housing Loans.

(6) For loan agreements to which the Consumer Credit Act applies and for other loan agreements, the total cost of the loan for the purposes of this Decision shall include the costs under Article 2, paragraph (1), item (7) of the Consumer Credit Act.

(7) Where the conclusion of an agreement on ancillary services relating to the consumer loan agreement, in particular insurance, is compulsory in order to obtain the consumer loan or to obtain it on the terms and conditions marketed, than their cost shall be included in EIR calculation, regardless of whether the consumer himself chose that service among several offered ancillary services. It shall be considered that the conclusion of the agreement on ancillary services is not compulsory if:

- the consumer is informed in advance and can choose at any time during the contractual relationship from the services offered by the creditor, including the possibility of maintaining the same contractual terms and conditions, but without that ancillary service;
- the consumer may withdraw from an ancillary service at any time during the contractual relationship and cease to pay the costs of that ancillary service without additional costs and effects on the terms and conditions of the loan agreement.

(8) The calculation of the EIR for consumer housing loans shall not include the cost of the immovable property transfer tax. The calculation of the EIR on deposits shall not include the amount of advance payment of tax and surtax on interest income.

(9) The EIR shall be further adjusted by a one-off equivalent of the effect of discounted cash inflows and outflows based on the cash deposit serving as collateral for the loan and the costs of the endowment life insurance policy (assurance on survival to a stipulated age or on earlier death). The effective interest rate adjusted by the effect of the cash deposit and the endowment life insurance policy shall be obtained by multiplying the effective interest rate by the correction factor. The correction factor is the quotient of total discounted loan payments and total discounted loan payments reduced by total discounted flows of the cash deposit or the endowment life insurance policy. The correction factor may not be lower than one.

The effective interest rate adjusted by the effect of the cash deposit and the endowment life insurance policy shall be calculated in accordance with the following formulae:

$$EIR^* = EIR \times CF,$$

$$CF = \max \left\{ 1, \frac{TDL P}{TDL P - TDFCD} \right\},$$

where symbols have the following meanings:

$EIR^*$  = the effective interest rate adjusted by the effect of the cash deposit or the endowment life insurance policy;

$EIR$  = the effective interest rate;

$CF$  = the correction factor;

$TDLP$  = total discounted loan payments;

$TDFCD$  = total discounted flows of the cash deposit or the endowment life insurance policy.

(10) As regards foreign currency loan agreements and foreign currency deposit agreements where fees and commissions are determined and charged in the currency of the Republic of Croatia, they shall, for the purposes of EIR calculation, be converted into the respective foreign currency, at the midpoint exchange rate of the Croatian National Bank applicable on the date of EIR calculation. Where the credit institution applies more than one reference exchange rate (e.g. buying rate when a loan is granted, selling rate when a loan is repaid), the EIR shall include the differences between the reference rates of exchange. Calculations of the EIR for foreign currency-indexed loan agreements and foreign currency-indexed deposit agreements may be reported in a foreign currency (instead of in kuna) provided that loans are granted or repaid, and deposits are received or withdrawn, by applying the same reference rate of exchange (e.g. midpoint exchange rate of the Croatian National Bank).

(11) In model calculations of the EIR, and for the purpose of public communication, it shall be assumed that the loan funds are disbursed on the first day of the month and that interim interest is calculated for a minimum of one month. Where a credit institution does not offer loans that include interim interest, the EIR shall be calculated without that interest.

## Assumptions

### Article 7

(1) In the calculation of the EIR for loan agreements, the entities subject to the Decision, referred to in Article 2 of this Decision shall, where applicable, use the following additional assumptions:

1. If a loan agreement gives the consumer freedom of drawdown, the total amount of the loan shall be deemed to be drawn down immediately and in full.
2. If a loan agreement provides different ways of drawdown with different fees or interest rates, the total amount of the loan shall be deemed to be drawn down at the highest fee and interest rate applied to the most common drawdown mechanism for this type of loan agreement.
3. If a loan agreement gives the consumer freedom of drawdown in general but imposes, amongst the different ways of drawdown, a limitation with regard to the amount of the loan and period of time, the amount of the loan shall be deemed to be drawn down on the earliest date provided for in the loan agreement and in accordance with those drawdown limits.

4. If different interest rates and fees are offered for a limited period or amount, the highest interest rate and fees shall be deemed to be the interest rate and fees for the whole duration of the loan agreement.
5. For loan agreements for which a fixed interest rate is agreed in relation to the initial period, at the end of which a new interest rate is determined and subsequently periodically adjusted according to an agreed indicator or internal parameter, EIR calculation shall be based on the assumption that, at the end of the fixed interest rate period, the interest rate is the same as at the time of EIR calculation, based on the value of the agreed indicator or internal parameter at that time, but is not less than the fixed interest rate.
6. If the ceiling applicable to an agreement on a consumer housing loan has not yet been agreed, that ceiling is assumed to be HRK 1,275,000. In the case of loan agreements — other than contingent liabilities or guarantees — for which the ceiling applicable to the loan agreement has not yet been agreed, and the purpose of which is not to acquire or retain a right in immovable property or land, overdrafts, deferred debit cards or credit cards, this ceiling is assumed to be HRK 11,250.
7. In the case of loan agreements other than overdrafts, bridging loans, shared equity loan agreements, contingent liabilities or guarantees and open-ended loan agreements as referred to in items (9), (10), (11), (12) and (13) of this paragraph:
  - a) if the date or amount of a repayment of the principal to be made by the consumer cannot be ascertained, it shall be assumed that the repayment is made at the earliest date provided for in the loan agreement and is for the lowest amount for which the loan agreement provides;
  - b) if the interval between the date of initial drawdown and the date of the first payment to be made by the consumer cannot be ascertained, it shall be assumed to be the shortest interval.
8. Where the date or amount of a payment to be made by the consumer cannot be ascertained on the basis of the loan agreement or the assumptions set out in items (7), (9), (10), (11), (12) and (13) of this paragraph, it shall be assumed that the payment is made in accordance with the dates and conditions required by the creditor and, when these are unknown:
  - a) interest fees are paid together with the repayments of the principal;
  - b) non-interest fees expressed as a single sum are paid at the date of the conclusion of the loan agreement;
  - c) non-interest fees expressed as several payments are paid at regular intervals, commencing with the date of the first repayment of the principal and if the amount of such payments is not known they shall be assumed to be equal amounts;
  - d) the final payment clears the balance of the principal, interest and other fees, if any.
9. In the case of an overdraft facility, the total amount of the loan shall be deemed to be drawn down in full and for the whole duration of the loan agreement. If the duration of the overdraft facility is not known, the EIR shall be calculated on the assumption that the duration of the loan is three months.
10. In the case of an open-ended loan agreement, other than an overdraft facility and bridging loan, it shall be assumed that:

- a) for loan agreements, the purpose of which is to acquire or retain rights in immovable property the loan is provided for a period of 20 years starting from the date of the initial drawdown, and that the final payment made by the consumer clears the balance of the principal, interest and other fees, if any; in the case of loan agreements the purpose of which is not to acquire or retain rights in immovable property or which are drawn down by deferred debit cards or credit cards, this period shall be of one year;
- b) the principal is repaid by the consumer in equal monthly payments, commencing one month after the date of the initial drawdown. However, in cases where the principal must be repaid only in full, in a single payment, within each payment period, successive drawdowns and repayments of the entire principal by the consumer shall be assumed to occur over the period of one year. Interest and other fees shall be applied in accordance with those drawdowns and repayments of the principal and as provided for in the loan agreement.

An open-ended loan agreement is a loan agreement without fixed duration and includes loans which must be repaid in full within or after a period but, once repaid, become available to be drawn down again.

- 11. In the case of a bridging loan, the total amount of the loan shall be deemed to be drawn down in full and for the whole duration of the loan agreement. If the duration of the loan agreement is not known, the EIR shall be calculated on the assumption that the duration of the loan is 12 months.
  - 12. In the case of contingent liabilities or guarantees, the total amount of the loan shall be deemed to be drawn down in full as a single amount at the earlier of:
    - a) the latest draw down date permitted under the loan agreement being the potential source of the contingent liability or guarantee; or
    - b) in the case of a rolling loan agreement at the end of the initial period prior to the rollover of the agreement.
  - 13. In the case of shared equity loan agreements:
    - a) the payments by consumers shall be deemed to occur at the latest date or dates permitted under the loan agreement;
    - b) percentage increases in value of the immovable property which secures the shared equity loan agreement, and the rate of any inflation index referred to in the agreement, shall be assumed to be a percentage equal to the higher of the current central bank target inflation rate or the level of inflation in the Member State where the immovable property is located at the time of conclusion of the loan agreement or 0 % if those percentages are negative.
- (2) In the case of deposit agreements for which it is not possible to foresee the amount and dates of cash flows, the EIR shall be equal to the nominal interest rate.

### **III CREDIT UNIONS**

#### **Obligations of credit unions**

##### **Article 8**

In addition to other obligations prescribed in this Decision, a credit union shall:

1. in all premises, in a visible place and in an understandable manner, disclose that deposits deposited with the credit union are not insured pursuant to the law governing deposit insurance;
2. disclose the EIR to its members before the conclusion of a loan agreement and provide all necessary information for EIR calculation;
3. before the conclusion of deposit agreements, inform its members that deposits deposited with the credit union are not insured pursuant to the law governing deposit insurance.

### **IV TRANSITIONAL AND FINAL PROVISIONS**

#### **Entry into force**

##### **Article 9**

(1) On the date of the entry into force of this Decision, the Decision on the effective interest rate of credit institutions and credit unions and on service contracts with consumers (Official Gazette 1/2009 and 41/2009) shall cease to have effect.

(2) This Decision shall be published in the Official Gazette and shall enter into force on 20 December 2017.

No.: 279-020/10-17/BV

Zagreb, 20 October 2017

Croatian National Bank

Governor

**Boris Vujčić**