

According to RA Law “On Consumer Loans” as of June 17, 2008, the bank calculates the actual (effective) interest of the loan as follows:

The formula of calculation:

$$A = \sum_{n=1}^N \frac{K_n}{(1+i)^{\frac{D_n}{365}}}$$

Wherein:

i – is the annual interest rate and total expenditure of lending, expressed in annual loan interest, including all interests and other payments, which the customer is obliged to pay for obtaining loan as well as during the validity process.

A – the principal amount granted to the borrower.

n – is the next-in-turn number of loan repayment (principal amount, interests and/or other amounts to be paid, including the fee charged for providing the loan). Repayment of the principal amount, interests and/or other payments of the same day is considered as single payment.

N - is the final number of loan repayment (principal amount, interests and/or other amounts to be paid, including the fee charged for providing the loan), after which customer liabilities under loan agreement are counted as fulfilled and completed.

Kn – is the *n*-next-in-turn amount of payment (principal amount, interest amounts, etc) installed by the borrower at the moment of receiving the loan or during its validity period.

Dn – is the number indicating the number of days passed from the day of loan receipt till the next day of loan repayment, *n*-repayment day inclusively.

Model:

Let’s suppose that you have purchased a vehicle of AMD 3,000,000.00 value, from which AMD 2,000,000.00 is granted by the bank, for 5 year maturity, at 16% annual interest rate on condition of making equal monthly installments (by annuity).

Costs for loan service and monthly installments of the loan are required to calculate the actual interest rate of the loan. Loan costs are required to pay for vehicle assessment, notary authentication, lien at Traffic Enforcement Police, etc. For example, hereby all these costs are amounted to AMD 18,000.00. The monthly installment of loan comprises AMD 48,636.11 (see the loan calculator). The monthly service fee of the Bank is AMD 5,000.00 (for this certain case) according to the Lending Procedure.

Let’s calculate:

$$2,000,000 = \frac{18,000.00}{(1+i)^{\frac{0}{365}}} + \frac{53,636.11}{(1+i)^{\frac{31}{365}}} + \frac{53,636.11}{(1+i)^{\frac{59}{365}}} + \dots + \frac{53,636.11}{(1+i)^{\frac{1826}{365}}}$$

As a result we get the following actual interest rate:

i = 23.17% per annum.