

## **ANNEX**

### **CALCULATION OF THE CASH GRANT EQUIVALENT OF A SOFT LOAN**

A public authority commits itself to paying an interest subsidy on a 5 billion lei for a 5-year loan, so that to maintain the interest rate to the borrower at 30%.

The commercial average interest rate that year is 50% (reference rate).

In calculating the cash grant equivalent of the subsidy throughout the term of the loan, it may be assumed that the reference rate will remain constant over the period.

The calculation of the cash grant equivalent depends on whether a grace period to paid off the loan exists or not.

#### **1. No grace period**

The loan is paid off in linear annual installments. The cash grant equivalent of the interest subsidy the first year is the principal sum multiplied by the interest subsidy in percentage, divided by the reference interest rate, thus:

$$\text{Year 1: } 5,000,000,000 \times 0.20 / 1.5 = 666,666,667 \text{ lei}$$

From year 2 to 5, the subsidy shall be calculated similarly, by using the composed interest rate.

$$\text{Year 2: } 4,000,000,000 \times 0.20 / (1.5)^2 = 355,555,556 \text{ lei}$$

$$\text{Year 3: } 3,000,000,000 \times 0.20 / (1.5)^3 = 177,777,778 \text{ lei}$$

$$\text{Year 4: } 2,000,000,000 \times 0.20 / (1.5)^4 = 79,012,346 \text{ lei}$$

$$\text{Year 5: } 1,000,000,000 \times 0.20 / (1.5)^5 = 26,337,449 \text{ lei}$$

The total cash equivalent is the sum of the discounted subsidies each year, i.e. 1,305,349,796 lei (if it were below 1 billion lei, it should have not been notified)

#### **2. With a grace period**

No principal repayments have to be made during the first three years (but in the meantime, the debtor pays the interest)

The loan is repaid in linear instalments of 2,500,000,000 lei as of the fourth year onwards.

$$(1) \ 5,000,000,000 \times 0.20 / 1.5 = 666,666,667 \text{ lei}$$

$$(2) \ 5,000,000,000 \times 0.20 / (1.5)^2 = 444,444,444 \text{ lei}$$

$$(3) \ 5,000,000,000 \times 0.20 / (1.5)^3 = 296,296,296 \text{ lei}$$

$$(4) 5,000,000,000 \times 0.20 / (1.5)^4 = 197,530,864 \text{ lei}$$

$$(5) 2,500,000,000 \times 0.20 / (1.5)^5 = 65,843,621 \text{ lei}$$

In this case the total cash grant equivalent is 1,670,781,892 lei.