

## METHODOLOGICAL SHEET

### **REAL EFFECTIVE EXCHANGE RATE OF THE KORUNA DEFLATED BY UNIT LABOUR COST INDEX (ULC)**

#### **I. Definition and content**

The real effective exchange rate of the koruna (REER) is one of the indicators of the international competitiveness of a country and is generally understood to mean various levels of relative price or costs expressed in a certain currency. In this respect, REER values above 100 signify a downward trend in the country's competitiveness relative to the base period, whereas an REER below 100 means rising competitiveness of the country relative to the base period.

The weighted geometric average of the ratio of the nominal exchange rate index to the unit labour cost is used to compute the REER, with the weights given by the shares of the nation's largest trading partners in trade turnover.

The framework of the real effective exchange rate of the koruna employs unit labour cost index in the whole economy (ULCT) and in manufacturing (ULCM) of 12 countries out of eurozone plus all eurozone countries. For the calculations the eurozone countries are identified as a single currency and cost area. The number of eurozone countries corresponds to the actual state. The structure of the countries and their weights are identical to those used to calculate the nominal effective exchange rate of the koruna (NEER). In the first variant, the weights relate to the overall trade turnover, whereas in the second variant the weights relate only to the turnover in SITC groups 5–8.

The base of the time series is the average of 2020.

#### **II. Sources and methodology of ascertainment**

For the calculation of the real effective exchange rate are used as deflators unit labour cost indices obtained for all countries from ECB statistics. ULC indices are converted into 2020 base.

The nominal exchange rate indices are taken from the CNB's own NEER calculations.

#### **III. Breakdown**

For both, the first and second variants, the quarterly REER indices are calculated based on average of 2020, expressed in unit labour cost in the whole economy and in manufacturing.

**IV. Method of calculation**

Weights of monetary areas calculated by share of total trade turnover of the Czech Republic

Variant I.	in %
Monetary area	2020
1 eurozone	63,6
2 Poland	8,5
3 China	7,7
4 Hungary	3,4
5 United Kingdom	3,2
6 USA	2,9
7 Russian Federation	2,6
8 Romania	1,7
9 Switzerland	1,6
10 Korea	1,4
11 Sweden	1,4
12 Japan	1,2
13 Denmark	0,8
Total	100,0

Weights of monetary areas calculated by share of total trade turnover of the Czech Republic for SITC groups 5-8

Variant II.	in %
Monetary area	2020
1 eurozone	63,8
2 Poland	8,3
3 China	8,0
4 Hungary	3,4
5 United Kingdom	3,3
6 USA	2,9
7 Russian Federation	1,9
8 Romania	1,7
9 Switzerland	1,6
10 Korea	1,5
11 Sweden	1,5
12 Japan	1,3
13 Denmark	0,8
Total	100,0

Formula for the calculation of the real effective exchange rate index:

$$REER_t = 100 \times \prod_{i=1}^n \left( \frac{S_{it}^*}{P_{it}^*} \right)^{w_i^*}$$

where

$S_{it}^*$  - basic index of the domestic currency to the currency of the i-th trading partner in period t

$P_{it}^*$  - ratio of the basic labour cost index of the i-th trading partner in period t to the basic labour cost index of the Czech Republic in period t, the base year being the same as for the calculation of  $S_i^*$

$w_i^*$  - standardised weights of the currency of the i-th trading partner

**V. Changes in methodology and content**

As of February 2022 the time series base is changed to the average of 2020. Next change in the basis to the average of 2025 will be made in 2027 together with the change in weights of foreign trade used in NEER.

**VI. Reporting entities**

None.