02.08.2012

Nominal Effective Exchange Rate (NEER) and Real Effective Exchange Rate (REER)

Technical box extracted from:

Inflation Report no.3, August 2012 [1]

Nominal Effective Exchange Rate and Real Effective Exchange Rate are commonly used as indicators of external competitiveness.

Nominal Effective Exchange Rate is calculated as a weighted average of bilateral nominal exchange rates of national currency against foreign currencies. At the same time, conceptually, the Real Effective Exchange Rate is defined as a weighted average of a country's currency against a basket of other major currencies adjusted to the effects of inflation. The foreign currencies weights in the basket are calculated based on the trade balance of the Republic of Moldova, the main partners being Romania, Russian Federation and Ukraine. In total, the currencies of 17 countries are included in the calculation of nominal and real exchange rates. The base period is considered to be December 2000.

According to the methodology of calculation, the nominal effective exchange rate can be written as:

$$NEER = \prod_{i=1}^{n} \left(\frac{s_i}{s_i^*} \right)^{w_i}$$

where:

- n – number of countries (currencies) from the basket;
- s_i – exchange rate of the national currency against the currency of the country i;
- s_i^* – exchange rate of the national currency against the currency of the country i during the base period;
- w_i – country's weight (of the currency).

Real Effective Exchange Rate can be written as:

$$REER = \prod_{i=1}^{n} \left(\frac{s_i}{s_i^*} * \frac{p_i}{p_{MD}} \right)^{w_i}$$

where:

- n – number of countries (currieries) from the basket;
- s_i – exchange rate of the national currency against the currency of the country i;
- s_i^* – exchange rate of the national currency against the currency of the country i during the base period;
- w_i – country's weight (of the currency) in the basket;
- p_i- inflation rate in country i;

— p_{MD} - inflation rate in the Republic of Moldova.

Thus, according to the Chart no.4.14, compared with March 2012, there was recorded an appreciation of the MDL in both nominal and real terms. The REER growth was mainly determined by the nominal appreciation. This evolution involves the reduction of the competitiveness of domestic goods relative to Moldova's trading partners. It should be mentioned that these indicators reflect only the price competitiveness. Chart no.4.15 shows, for example, that the Russian ruble depreciation against the U.S. dollar determined the decrease of prices of Russian products expressed in U.S. dollars. At the same time, prices for Moldovan products, also expressed in U.S. dollars, remain at the same level.

See also

Tags
Nominal Effective Exchange Rate [2]
NEER [3]
Real Effective Exchange Rate [4]
REER [5]
currencies weights [6]
