

## INDICATORS DETERMINING THE COMPETITIVENESS OF THE COUNTRY

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### Annotation

Integration processes are important in economic relations, which are rapidly developing on a global scale. The country's participation in the integration process, in turn, will also have an impact on the economy of this country. In this article, we brought analytical results in order to ensure the participation of Uzbekistan in integration processes, to show how it affects which areas.

**Keywords:** integration, Revealed Comparative Advantage, Trade complementarity indices, comparative export performance, export similarity index

### Annotatsiya

Integratsion jarayonlar jahon miqyosida jadal rivojlanib borayotgan iqtisodiy munosabatlarda muhim ahamiyatga ega. Mamlakatning integratsion jarayondagi ishtiroki o'z navbatida ushbu mamlakat iqtisodiyotiga ham o'z ta'sirini o'tkazadi. Ushbu maqolada integratsion jarayonlarda O'zbekistonning ishtirokini ta'minlash, qaysi sohalarga qanday ta'sir qilishini ko'rsatib berish maqsadida tahliliy natijalarni keltirdik.

### Аннотация

Интеграционные процессы играют важную роль в экономических отношениях, которые стремительно развиваются в глобальном масштабе. Участие страны в интеграционном процессе, в свою очередь, также окажет влияние на экономику этой страны. В этой статье мы привели аналитические результаты для того, чтобы обеспечить участие Узбекистана в интеграционных процессах, показать, как это влияет на какие сферы.



## **Introduction**

Nowadays, globalization processes are rapidly growing in the world, and integration processes are also accelerating. The countries of the world, having joined integration associations, are trying to raise the country's economy and penetrate world markets without obstacles. One of the integration associations that we are going to analyze today is the Eurasian Economic Union (EAEU). This union was established in 2014 on 29 May. Union member countries: Russia, Belarus, Kazakhstan, Kyrgyzstan and Armenia. The Eurasian Economic Union involves strengthening the International and mutual unity of the member states with each other.

The the Eurasian Economic Union (EAEU) ensures the free movement of goods, services, labor and capital between states and provides general policies in the macroeconomic sphere, transport, industry and agriculture, energy, foreign trade and investment, customs, technical regulation, competition and other areas. Unlike the treaty that makes up the eurozone, the treaty that makes up the YeoI has not established a single currency so far.

In addition to the member countries, there are also countries with observer status, which are the countries of Uzbekistan, Moldova and Cuba.

It is important for Uzbekistan to ensure the achievement of accurate and consistent results of interaction as an observer country in the EAEU. It is necessary to consistently develop systematic cooperation, including issues of simplifying the order of movement of goods, capital, labor resources and services.

A revealed comparative advantage is an index used in the international economy to calculate the relative advantage or disadvantage of a given country in a particular class of goods or services. It is based on the concept of Ricardian comparative advantage. It is used to define sectors in which the economy has a comparative advantage by comparing the sales profile of the country of interest with the world average. For the first time, Liesner (1958) created such an index and conducted his own empirical study. The traditional form of the index, which is now widely used, was first presented by Balassa (1965, 1977, 1989). Currently, a comparative advantage (RCA) index has been established to measure the comparative advantages of trade at the global (Vollrath, 1991), regional (Balassa, 1965) and bilateral trade levels (Dimelis and Gatsios, 1995). It is determined by the following formula:



$$RCA = \frac{\ln\left(\frac{X_{iB}}{X_B}\right)}{\left(\frac{X_{iA}}{X_A}\right)},$$

$X_{iB}$ - export of  $B$  country to the EAEU by product  $i$ ;

$X_B$ - total export of  $B$  country to the EAEU;

$X_{iA}$ - export of the rival country to EAEU by product  $i$ ;

$X_A$ - total export of the rival country to EAEU;

If the value of this index is greater than unity ( $RCA > 1$ ), namely, if the export share of  $k$  commodity group of country  $i$  is greater than the share of the same commodity group in world exports, then country  $i$  has a comparative advantage in exporting  $k$  commodity.

Conversely, if the value of this index is less than one ( $RCA < 1$ ), it means that country  $i$  has a comparative disadvantage in the commodity/industry.

**Comparative export performance** is considered another indicator of comparative advantage and is a modified version of the Balassa index. It is determined by the following formula:

$$CEP = \frac{\ln\left(\frac{X_{iB}}{X_B}\right)}{\frac{X_{iA}}{X_A}};$$

here:  $X_{iB}$  – export of country  $B$  by  $i$  product;

$X_B$  – the total export of country  $B$ ;

$X_{iA}$ - the amount of total world exports by product  $i$ ;

$X_A$ - total world exports.

**The trade complementarity index** is considered a type of interdependence index which measures how well one country's export pattern matches another's import pattern. It is determined by the following formula:



$$TCI = \left( 1 - \frac{\left( \frac{\frac{M_i}{M_t}}{\frac{I_{exp}}{Tot_{exp}}} \right)}{2} \right) * 100;$$

here:  $M_i$  – imports of country  $M$  by product  $i$ ;

$M_t$  – the total imports of country  $M$ ;

$I_{exp}$  – exports of country  $I$  by product  $i$ ;

$Tot_{exp}$  – total exports of country  $I$ .

The simplest measure of export diversification is the inverse of the Herfindahl concentration index, which is constructed using the sum of the squares of sectoral shares in total export. That is, indexing countries by  $i$  and sectors by  $k$ , the Herfindahl index is equal to  $2 \sum (i i k k h s = \sum)$ , where  $2 \sum (i i k k h s = \sum)$  is the share of sector  $k$  in country  $i$ 's exports or imports.<sup>19</sup> By construction,  $h i$  ranges from  $1/K$  to one, where  $K$  is the number of products exported or imported. The index can be normalized to range from zero to one, in which case it is referred to as the normalized Herfindahl index:  $1/11/i i h K n h K - = - (1.14)$  If concentration indices such the Herfindahl index are calculated over active export lines only, they measure concentration/diversification at the intensive margin. Diversification at the extensive margin can be measured simply by counting the number of active export lines. The first thing to observe is that, in general, diversification at both the intensive and extensive margins goes with economic development, although rich countries re-concentrate (see Figure 1.4).

Export similarity index Finger and Kreinin (1979) suggest the export similarity index (ESI) to measure the degree of similarity of exports between two countries on the world market. The ESI also explains the trade complementarity between two countries by comparing the export patterns of the countries on the world market. The model can be defined as follows:



$$ESI(ab, w) = 100x\{\sum_j^n \min(\frac{X_a^j}{X_a}, \frac{X_b^j}{X_b})\}$$

where  $ESI(ab, w)$  is the similarity degree of export patterns of country  $a$  and country  $b$  to the world market;  $\sum_j X_a^j$  is the share of commodity  $j$  in country  $a$ 's total export to the world market; and  $\sum_j X_b^j$  is the share of commodity  $j$  in country  $b$ 's total export to the world market. The ESI value ranges from 0 to 100. If the exports of both countries to the world market are entirely the same, this index is 100; if they are totally different, it is zero. The greater (smaller) values of the ESI mean, the higher (lower) degree of the export similarity or the lower (higher) degree of the export complementarity. The increase of the ESI indicates that country  $a$  and country  $b$  are getting more substitutable or competing and vice versa.

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