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N. V. Kostenko,
PhD (Economics),
Donetsk National Technical University

MODEL OF COUNTRY'S GEO-ECONOMIC POSITION IDENTIFICATION IN TERMS OF INTERNATIONAL INTEGRATION

Statement of the problem. Integration occurs on quite certain conditions: a high level of monopoly capitalism and its internationalization, imminence of participating countries' economic interests, absence of serious political differences between them, subjective willingness of political elites to a lose certain share of national sovereignty for the benefit of resolving the long-term economic and political integration tasks and their readiness to form these tasks [1, p. 335]. Modern states prefer regional integration as a result of failure to address issues such as trade policy within international institutions. Trade policy gradually becomes really transparent in the form of regional integration since it relies on a parity basis on the assumption of countries' economic interests. Regional integration can enhance the dynamic effects due to specialization and increase the degree of industry localization.

This trend has caused concern among the supporters of the GATT / WTO. On February 6, 1996 General Council of WTO established a Committee on Regional Trade Agreements (RTA). The purpose of the committee is to study the regional arrangements and assess their compliance with the WTO requirements. This committee also studies the possible impact of regional agreements on the multilateral trading system and relationship between regional and multilateral agreements.

Analysis of recent research. The theoretical basis, characteristics, causes and analysis of international integration is currently being developed by foreign scientists, namely M. Shiff, A. Winters [2], I. Hurova [3], A. Liman, L. Zevin [4], I. Tochytskaya [5], and Ukrainian scientists: O. Bilorus, D. Lukyanenko [6], A. Shnypko [7] and others.

O. Bilorus and D. Lukyanenko define the concept of international economic integration as an objective conscious and purposeful process of rapprochement, mutual adjustment and merger of national economic systems. According to them it has the potential of self-regulation and development and is based on independent economic players' economic interest and the international division of labor [6, p. 224].

Rationale for the integration associations' development according to A. Liman and L. Zevin provides six benefits. Firstly, a larger region has more opportunities for specialization and thereafter for the division of labor grounded on comparative advantage, which is the basis for effectiveness increase. Secondly, a large region has significant opportunities to use economies of scale due to the larger number of prospective customers. Thirdly, a large area can provide high competitive pressure on businesses and thereby reduce X-inefficiency. Fourthly, the size of the region makes it possible to launch large-scale projects requiring substantial labor costs and material resources. Fifthly, markets' openness is a positive factor in changing the industrial structure in terms of firms "remaining on the market". Finally, larger regions usually are less deficient in management personnel of high quality while diversity may become a source of creativity and growth [4, p. 69 – 70].

The World Bank experts emphasizes that regional trade agreements (including bilateral free trade agreements between the North and the South, and trade preferences agreements between the countries of the South) can create favorable conditions for rapid poverty reduction. However it is possible only if developing countries integrate these agreements into the strategy of trade liberalization in three directions – unilaterally, in multilateral and regional relations [8].

The positive role of regional integration is manifested in the desire of countries to establish relationships, finding common general historical events, share experiences and knowledge and cultural heritage. In this perspective regional integration is the form of influence on state institutions through the proclamation of supranational goals, ideas and safety standards. Regional integration will expand the boundaries of economic control across national boundaries, building new benchmarks of socio-economic development and incremental transition to a global society. The rapid growth of regional arrangements in the early 21st century calls for research and determination of regional integration effectiveness.

Body text. Exploring various aspects of economic integration M. Schiff and A. Winters recommend states to follow certain rules governing successful integration, which were developed through international experience. Among these rules are the following: integration with wealthier and stronger states is beneficial; cost-effective integration associations are politically rational; integration serves as the impetus for reform; integration strengthens the security of the state; integration increases investment;

integration encourages competition; integration optimizes the tax system; the World Trade Organization does not protect against integration faults [2, p. 93]. So while determining their geo-economic position in the global coordinate system countries should clearly rate their regional priorities.

To replace the Washington Consensus alternative the Beijing Consensus doctrine was proposed.

In 2004 the London Centre for International Policy published a report entitled "Beijing Consensus" where this doctrine's specifics were disclosed. Fundamental postulate of "Beijing Consensus" doctrine is to increase the share of GDP that is redistributed by the state, and to increase state control over private capital (not excepting although public-private partnership). "Beijing Consensus" is perceived as economic regionalization doctrine, which results in the creation of several interacting and competing regional arrangements that form the foundation of modern multipolar management of the world economy. Strengthening the role of the state and international organizations is a defining feature of "Beijing Consensus" doctrine. At the same time the role of many international financial organizations (WTO, IMF, World Bank, etc.) is secondary [9, p. 12 – 13].

The basic premise of integration is trade liberalization. That is why in our view it is advisable to monitor the integration process through the implementation of trade policy.

States' union in regional integration arrangements framework requires relevant approaches to their collaboration assessment. Such interaction is based on strengthening the static and dynamic effects arising from spatial localization expansion in the framework of regional integration arrangements and positive impact on macroeconomic performance.

According to the United Nations method trade policy is assessed within the following indicators' groups:

– Indicators of commercial activity;
– Indicators assessing the direction of trade;
– Indicators of the sectoral trade structure;
– Indicators of tariff protection.

In a context of global trade flows the degree of countries' integration into the world economy is measured by means of foreign trade. Current practices in regional integration evaluation and measurement are based on indicators of bilateral trade flows (exports and imports) and GDP. Indicators of trade integration are measured within the integration arrangement (intra-trade) as well as outside it (extra-trade).

For measurement of intra-regional and extra-regional trade the following parameters are applied within OECD method [7, p. 60 – 73]:

1) index of intra-regional trade volume;

2) the indices of extra-regional trade arrangements;

3) index reflecting the degree of member countries' integration in regional trading communications.

Extra-regional trade reflects the nature of trade expansion outside the integration arrangement. Extra-regional trade commodity composition describes arrangements' role and place in the international division of labor. Trends in intra- and extra-CIS trade are shown in Figure 1.

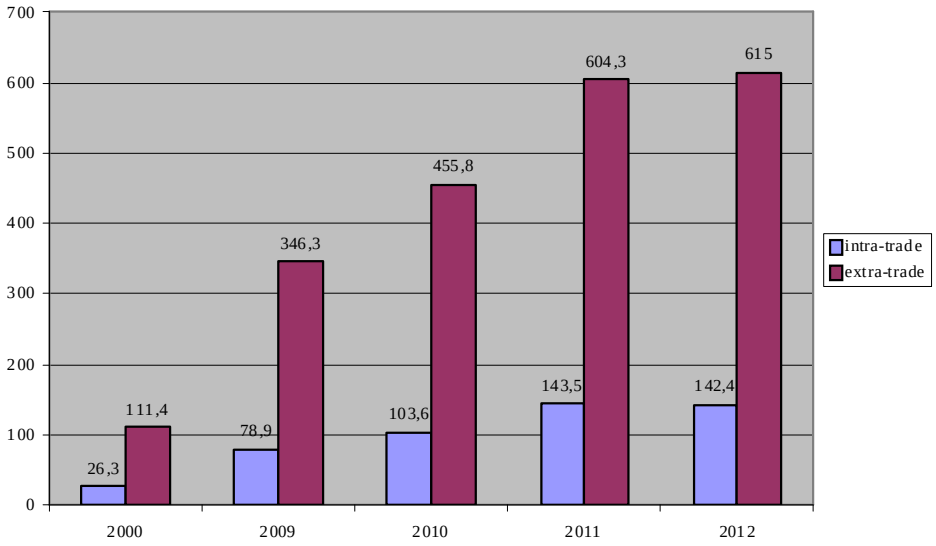

Fig. 1. Trends in intra- and extra-CIS trade, biln. USD

Developed by the author on the basis of data from Interstate Statistical Committee of the CIS official web-site: http://www.cisstat.com/pagetop.htm

Study of mutual exports dynamics among regional integration arrangements and increase of its share in total exports of integration unit represent clear evidence of international economic integration development. Formation of a strong domestic market for regional arrangement gives it the opportunity to significantly reduce the risks from fluctuations on world markets.

Regional market share of the country is proposed to be calculated by UNESCAP method. Regional market share shows the relative importance for member countries to trade on intra-regional level within trade bloc. The larger is the value of the share, the more trade block export dominates in the economy of a member-country [10, p. 42 – 43].

Competitiveness at any level is realized through domestic and foreign trade. However it is undoubted that the basis of competitive advantage is created at all levels of society largely due to progressive structure of the real economy and its well-timed restructuring [7, p. 197]. Thus trade policy should reflect the industrial policy of regional blocs. The division of labor within the regional bloc will improve the economy structure of each country individually.

Under the formation and strengthening of integration associations' role with a lapse of time trade flows are being reoriented to priority markets. The main flows of goods move among member-countries ensuring the domestic demand and supply saturation. It will result in retention of internal regional trade predominance over foreign trade. There is a low proportion of intra-regional trade in SIC. That is why integration arrangement potential has significant prospects for future cooperation.

Manufactured products foreign trade is divided into intra- and inter-branch. The level of intra-industry trade is determined by the "quality" of economic integration in the world market, because the more developed a country is technically and economically, the higher the share of intra-industry trade in its turnover. The development of intra-industry trade stimulates the exchange of new technologies and promotes economic growth [5, p. 15].

Investigation of quantitative indicators of trade relations between regional integration arrangements would be incomplete without defining qualitative characteristics of exports and imports by product groups according to the standards of international trade classification (SITC).

When planning to join the free trade country should realize which of its sectors are effective (i.e. characterized by better export potential). Relatively ineffective sectors should intensify imports. Concluding the agreement on free trade zone countries are interested in increase of trade complementarity and competitiveness. When countries trade similar products their joining the free trade area (FTA) can yield a loss instead of trade expansion.

To determine the position of product groups by UNESCAP method [10, p. 76 – 84] and the Asian Development Bank methodology [11, p. 32 – 40] offered to trade within a regional trade agreement the following indices are calculated:

– Revealed Comparative Advantage index (RCA_{ij});

– Revealed Symmetric Comparative Advantage index (RSCA);

– Regional Orientation index ($RO_{t,i}$);

– Intra-Industry Trade index (GL_{ij});

– Trade Complementarity index (C_{kj});

– Competitiveness index (R_c);

– Index of Main Export Categories (I_{MEC}).

Methodology used in WITS database calculates the index of export specialization (*ES*). It is a modified RCA index where the denominator is usually measured by specific markets or partners. It provides information about products as a result of specialization in the export sector of the country. *ES* is calculated as the ratio between share of food in total exports for country i and share of imported products in specific markets or partners rather than its share in world exports. *ES* index is similar to RCA that values of less than unity indicates a comparative disadvantage and values greater than one reflects specialization on this market [12].

A methodology underlying developed by the author model of determining the geo-economic position at the conclusion of regional trade agreements (RTA) is reflected in Fig. 2. Suggested in Fig. 2 logical model is based on the definition of the integration core, i.e. the detection of the countries' position in mutual trade. According to the mass attraction law the presence of the core formed by powerful countries will attract less developed countries to cooperate. This model relates to ex-ante (or pre-analysis) methods, and simplifies the decision making concerning determining the relationship between regional arrangements' trade partners.

On October, 18, 2011 eight CIS countries (Russian Federation, Ukraine, Belarus, Kazakhstan, Armenia, Kirghizstan, Moldova and Tajikistan) signed Free Trade Agreement (CISFTA) [13]. In early September 2012 only 3 of the 8 countries, which concluded CIS Free Trade Agreement, have ratified it on the national level. Ukraine is among them. On September 23, 2012 CISFTA began to work for Russian Federation, Ukraine and Belarus as other countries have not determined conclusively. Basing on the proposed logical model we determined position of Ukraine and Russian Federation in the CIS Free Trade Agreement (as reflected in Fig. 3).

According to Fig. 3 the cumulative share of regional block's internal trade in world exports and imports is negligible and was only 0.78% in 2012. The average share of internal trade in the region decreased over 11 years from 11.7% in 2000 to 11.1% in 2010.

Comparison of these two indicators permits to estimate the homogeneity degree of regional integration arrangements. Excess of second indicator over the first one reflects the trading block heterogeneity, which is connected with the presence of a large trading partner dominating the association (namely Russian Federation). Russian Federation's export share was 57.5% in 2010 and 54.8% in 2012, Ukraine's – 18.1% and 17.8% respectively, Belarus' – 13.1% and 16.6% respectively, Kazakhstan's – 7.7% and 8% respectively; other countries' shares were less than 2%. Although integration core is formed by Russian Federation, Ukraine can join with the lapse of time. So the delay time and political dispute between two countries in full scale hinder the CIS reintegration.

Indicator of intra-regional trade for Ukraine within the CIS increased from 4.46% in 2000 to 18.7% in 2010 that is 4 times as much. Thus the value of trading partners for Ukraine was constantly growing.

Index demonstrating the degree of regional arrangement members' integration into regional trade ties also reflects the rapid growth from 54% in 2000 to 87% in 2010.

Trade inversion symmetry index for the CIS countries is taken from the regional arrangements database of the United Nations University (RIKS). The database contains indices to 2010 inclusive. Index value was much more than one and accounted for 16.9% in 2010. This indicates the relative importance of internal regional trade for the CIS countries as against trade with the rest of the world.

At the final stage we estimated the position of 86th commodity group for Ukraine and Russian Federation in 2011 as powerful partners of this regional bloc. As it is demonstrated in Fig. 3 Ukraine has the best position in this product group as revealed comparative advantage index (RCAij) amounts 20.998, and revealed symmetric comparative advantage index (RSCA) is positive and accounts for 0.909. In comparison with Ukraine Russian Federation has no tangible competitive advantage in this commodity group. Other indices for Ukraine also meet the conditions set forth in the model. For example the trade complementarity index amounts 80.7 and shows how Ukraine's export profile meets import profile of Russian Federation. Export specialization index for Ukraine accounted for 3.58 units. Since this index exceeds one export specialization is advisable for Ukraine in 86th commodity group on Russian market.

Index of major export articles amounted 40% in total of CIS exports for 86th commodity group (I_{MEC} = 0,4). The index takes on a value from 0 to 100 percent. Indices with higher values indicate higher product significance in the export profile of regional trade arrangement. Therefore commodity group mentioned above is considerable for countries' export as represents engineering products.

The results reflect the importance of Ukrainian exports to the CIS by 86th commodity group.

According to Ukrinform Russian Federation has suspended imports of Ukrainian wagons produced on "Kriukov car building works", "Dneprovagonmash" and "Azovobschemash" by the decision of the Federal Budgetary Organization "Register of Certification on the Federal Railway Transport" for technical reasons [14]. In this connection adopted restrictions will have adverse effect on this commodity group's export in 2013.

Conclusions and suggestions for further research. The proposed logical model simplifies the decision-making process regarding participation in integration arrangements by major indices. Indices can be calculated for 2-, 4- and 6-digit level codes of the Harmonized System nomenclature (HS). Thus each enterprise can determine its product's position in any geographic direction at the micro level. Pre-analysis conducted by the author shows the significance for Ukraine to participate in the CIS Free Trade Agreement. Operation of the regional arrangement in full format to determine its effectiveness in future requires conducting the post factum analysis.

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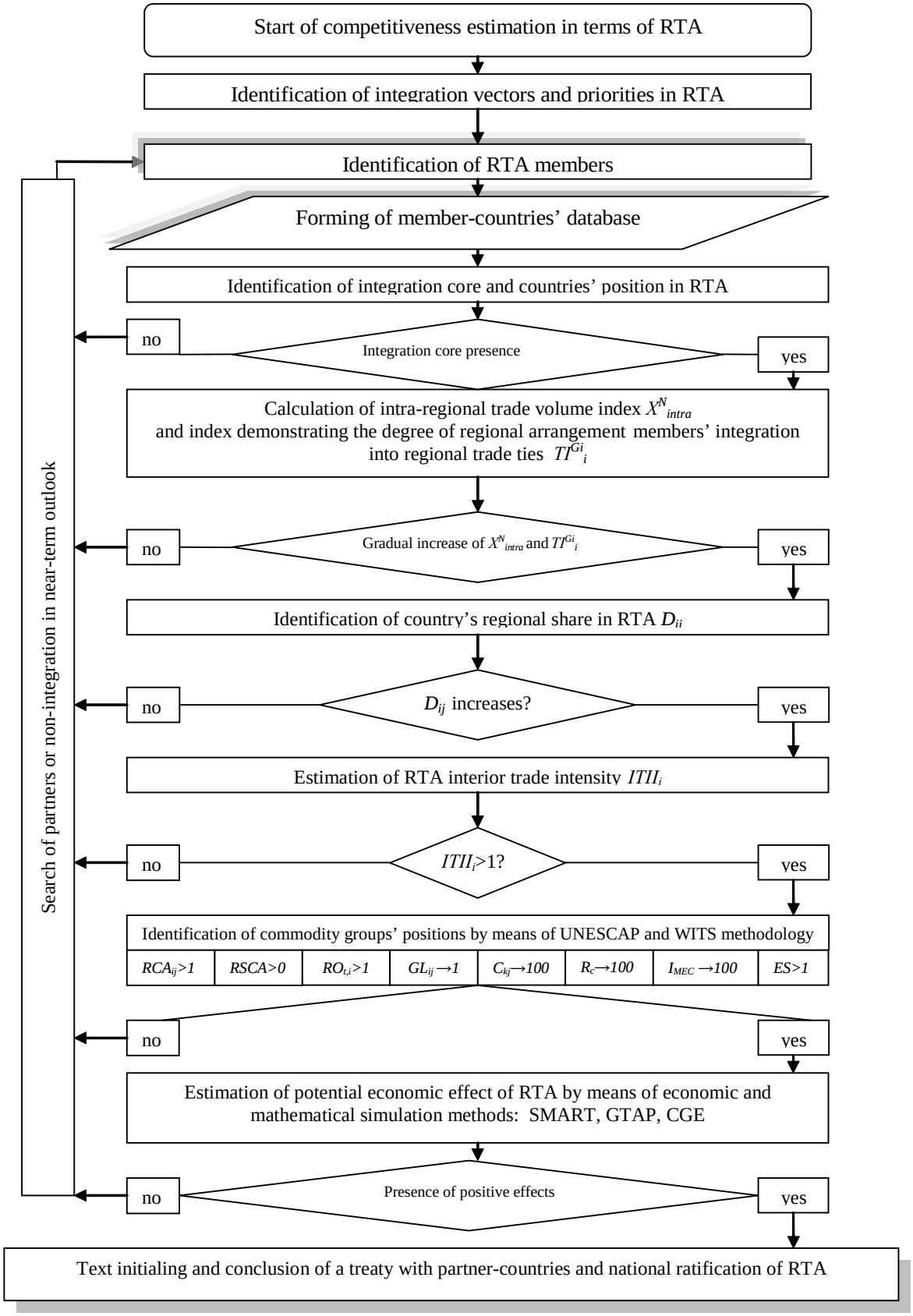

Fig. 2. Logical model of determining the geo-economic position at the conclusion of Regional Trade Agreements (RTA)

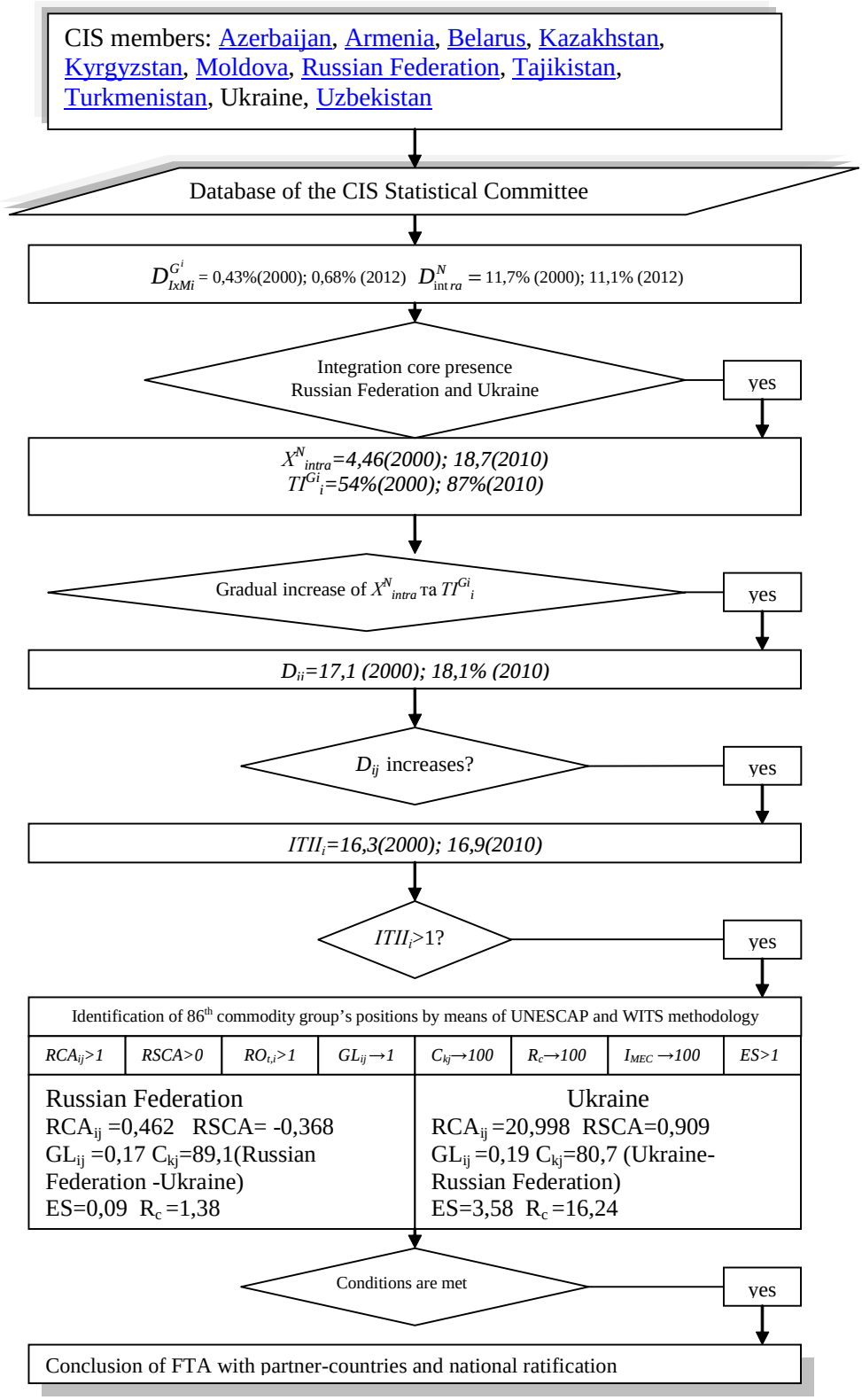

Fig. 3. Model of Ukraine's and Russian Federation's geo-economic position identification at the conclusion of FTA with the CIS countries

Calculations are conducted by the author on the basis of: RIKS, State Statistics Service of Ukraine and official web-site of the CIS Statistical Committee: www.cisstat.com

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Костенко Н. В. Модель визначення геоекономічної позиції країни в процесі міжнародної інтеграції

У статті охарактеризовано методику визначення геоекономічної позиції країни з урахуванням інтеграційного вектору. Методика грунтується на дослідженнях Університету ООН – RIKS, UNESCAP, Азійського Банку Розвитку. Обгрунтовано характер міжнародної інтеграції відповідно доктрині "Пекінського консенсусу", яка прийшла на зміну доктрині Вашингтонського консенсусу. "Пекінський консенсус" сприймається як доктрина економічної регіоналізації, що спричиняє створення кількох взаємодіючих і конкуруючих між собою регіональних груп, які формують фундамент сучасного багатополюсного управління світовою економікою. Автором доведено позитивний вплив регіональної інтеграції на розвиток країн-партнерів. Розроблено логічну модель визначення геоекономічної позиції країн при укладанні регіональних торговельних угод, в основу якої покладено метод попереднього аналізу (ex ante). Визначено геоекономічну позицію України в процесі регіональної інтеграції з країнами СНД. На прикладі 87 товарної групи розраховано показники експорту української продукції до ринку країн СНД.

Ключові слова: геоекономічна позиція, конкурентоспроможність, регіональна інтеграція, "Пекінський консенсус", СНД.

Костенко Н. В. Модель определения геоэкономической позиции страны в процессе международной интеграции

В статье описана методика по определению геоэкономической позиции страны с учетом интеграционного вектора. Методика основывается на исследованиях Университета ООН – RIKS, UNESCAP, Азиатского Банка Развития. Обоснован характер международной интеграции в соответствии с доктриной Пекинского консенсуса, которая сменила доктрину Вашингтонского консенсуса. Пекинский консенсус воспринимается как доктрина экономической регионализации, что вызывает создание нескольких взаимодействующих и конкурирующих между собой региональных групп, которые формируют фундамент современного многополюсного управления мировой экономикой. Автором доказано положительное влияние региональной интеграции на развитие стран-партнеров. Разработана логическая модель определения геоэкономической позиции стран при заключении региональных торговых соглашений, в основу которой положен метод предварительного анализа (ex-ante). Определена геоэкономическая позиция Украины в процессе региональной интеграции со странами СНГ. На примере 86 товарной группы рассчитаны показатели экспорта украинской продукции на рынок стран СНГ.

Ключевые слова: геоэкономическое позиция, конкурентоспособность, региональная интеграция, "Пекинский консенсус", СНГ.

Kostenko N. V. Model of Country's Geo-economic Position Identification in Terms of International Integration

Article gives technique of country's geo-economic position identification adjusted for an integration vector. This technique is based on United Nations University research (RIKS, UNESCAP, Asian Development Bank). Nature of international integration was grounded according to "Beijing Consensus" doctrine, which replaced the "Washington Consensus" doctrine. "Beijing Consensus" is perceived as economic regionalization doctrine resulting in formation of interactive and competitive regional arrangements, which create foundation for modern multipolar management of the world economy. Author gave evidence in favour of positive effect that regional integration has on member-countries' development. Logical model for identification of country's geo-economic position at the conclusion of regional trade agreements (RTA) was developed in the article. Pre-analysis method (ex ante) was assumed as a basis for the model. Author also defined geo-economic position of Ukraine in regional integration with the CIS countries. Export indices of Ukrainian products at the CIS market were calculated on the basis of 86th commodity group.

Key words: geo-economic position, competitiveness, regional integration, "Beijing Consensus", CIS.

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