#### International Economics

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# DEVELOPMENT POTENTIAL OF TRANSCONTINENTAL INTEGRATION

#### **Abstract**

The article determines and analyzes transcontinental integration as a new trend in the development of integration processes in the modern world economy. It examines the potential for its development in the context of European, North American and Asia-Pacific models of regional integration. The author suggests a new scientific and methodological approach to evaluating the potential of regional integration development based on its integral index which includes the influence of the external and internal factors of integration development. Its application in comprehensive comparative analysis of the integration development potential allows the researcher to define comprehensive and quantitative characteristics of regional integration processes occurring in the world economy within the framework of certain regional models.

## **Key words:**

Global regionalization, regional integration, regionalization, transcontinental integration, regional integration associations, regional economic integration models.

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Increasing regionalization of the world economy in the second half of the 20<sup>th</sup> century contributed to the elaboration of new regionalization theories aimed at examining various aspects of regional development. These theories established scientific and methodological basis for further research in the field of regional economics, regionalization, regionalism, and regional studies. The paradigm of global development has intensified research focused on interrelations between various levels of globalization and regionalization as well as development of the concepts of regional growth, planning, and competitiveness. The aforementioned issues have been covered in the works by A. Scott, M. Storper (regionalization of the global economy) (Scott, 2003; Storper, 2000), F. Cheru (concept of a region as an independent actor in the modern international relations system) (Cheru, 2000), G. Snooks (global strategic transition model) (Snooks, 1999), P. Aghion, B. Johansson, P. Romer, and others (theory of endogenous growth) (Aghion, 1998; Johansson et al., 2001; Lucas, 1988; Romer), M. Porter, C. Karlsson, H. Siebert, M. Enright (concepts of regional competition) (Enright, 2000; Porter, 1998; Siebert, 2006), P. Krugman, A. Venables, M. Fugita (the new economic geography) (Fujita, 1999; Krugman, 1986), U. Wannop, M. Geddes, J. Benington (concepts of regional planning and partnership) (Geddes, 2001; Wannop, 1995), M. McGinnis (concept of bioregionalism) (McGinnis, 1999), G. Petrakos, A. Rodríguez-Pose, A. Rovolis, and others (concept of regional convergence and divergence) (Petrakos, 2005), M. Keating, D. Rodrik, C. Wyplosz, B. Hettne, and others (the new regionalism) (Hettne, 1999; .Keating, 1996; Rodrik, 1999), V. Chuzhykov (theory of global regional studies) (Chuzhykov, 2008), A. Spartak (concept of global regionalism) (Spartak, 2011). Despite the fact that states maintain their leading position in geopolitics, E. Mansfield (Mansfield, 1997) emphasizes that regions are considered to be vital elements in the system of modern global economy.

The present article aims to define the notion of transcontinental integration which is a new trend in integration processes, to determine its features in the basic regional integration models of the modern world economy, and to suggest relevant tools for integral assessment of the potential of integration development that is occurring in countries and regional integration associations worldwide.

Increasing integration at various levels (micro, meso, macro, mega, and meta) results in the development of a special interstate economic space, which

forms the basic foundation for regionalization of the world economy and has a corresponding influence on the development of global integration. Formation of new economic regions in the world economy is not limited to such traditional geographic factors as raw materials availability or market proximity. In terms of technological development it is predetermined by innovation capacity and 'dynamism of local communities that learned to combine competition and cooperation while adapting constantly to the circumstances' (Spartak, 2011). Due to this, in addition to continental integration we can also distinguish such course in integration development as *transcontinental integration*. It constitutes a purposeful process of creating an interstate economic space between the countries with no common borders that are situated in different regions or on different continents of the world. This process results in establishment of a corresponding form (stage) of regional integration aimed predominantly at increasing international competitiveness of the integrant states.

Previous studies have substantiated that the structure of the modern world economy consists of certain space segments (regions) serving as subsystems of the world economy. The most important regions are those of the triad which forms the framework for development of the following prominent models of regional integration: European, North American and Asia-Pacific (Bulatova, 2012, pp. 176–228). The leading role in the development of transcontinental integration belongs, first and foremost, to the USA and the EU. Their strategic initiatives will affect integration processes in Asia, Africa, and Latin America, and will condition the nature of bilateral cooperation with other powerful actors of the world economy. Although interregional dialogue is focused mostly on issues of trade relations, it has become quite topical over the recent years to examine the development of comprehensive cooperation which also involves cooperation in the field of science, technology and energy, development of the labor market, environmental protection, general issues of sustainable development as well as political issues (counter-terrorism activities, violation of human rights, drug trafficking, cybercrime, etc.).

**European model of regional integration.** The position of the EU in the world economy has weakened, which requires the Union to define appropriate priorities for the integration component in its development strategy. These priorities consider both intensification of interregional integration (internal aspect of the integration component) and influence of the global integration, which in its turn requires the main future partners of the EU to establish more open and mutually beneficial terms on external markets (external aspect of the integration component).

The latter is conditioned by the fact that the EU extends both integration relations with neighbouring countries (primarily through implementation of the European Neighbourhood Policy, ENP) and transcontinental integration relations ensuring its high international competitiveness in the world economy. The European Neighbourhood Policy is aimed at introduction of privileged relations be-

tween the EU and neighbouring countries based on mutual commitment to common values. It is implemented in several vectors: the Northern Dimension (since 1999), the Eastern Partnership (since 2009), the Euro-Mediterranean Partnership, or Union for the Mediterranean (since 2008, former Barcelona Process), and the Black Sea Synergy (since 2008).

Development of infrastructure (transportation, communication, and energy), environmental protection, cooperation in the field of education and science, development of trade and investment, joint fight against crime, and cooperation for security constitute the main priorities of cooperation within the framework of the *Northern Dimension (ND)*. Implementation of this project includes the following initiatives: ND Environmental Partnership, ND Partnership in Public Health and Social Well-being, ND Partnership on Transport and Logistics, ND Partnership on Culture, etc.

The Eastern Partnership (EP) covers six countries (Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Ukraine). Its diversified dimension includes interaction in the following six important areas of cooperation between the EU and its partner countries: democracy, good governance and stability; economic integration and convergence with the EU policies; energy security; people-to-people contacts; relations with other parties interested in cooperation; horizontal cooperation. Policies and practical implementation of the EP programs create conditions to accelerate political association and deepen economic integration between the EU and partner countries of the Eastern Europe. This includes establishment of the Deep and Comprehensive Free Trade Areas (DCFTAs) which will promote liberalization of trade and investment, and convergence to the EU standards. Integration relations of the EU partner countries within the framework of the Eastern Partnership may differ, depending on the nature of negotiations in corresponding areas of each country.

The Euro-Mediterranean Partnership (EUROMED) covers sixteen countries of the Northern Africa and the Middle East that are situated south of the EU. Development of integration in this direction is implemented under the corresponding Euro-Mediterranean Association Agreements between the EU and the countries of this region. The Agreements stipulate joint implementation of regional and sub-regional projects in the field of economy, environment, energy, healthcare, migration, culture, tourism, etc. The Euro-Mediterranean Trade Area Roadmap (2010) provides for completion of the agreement-making process in the region (of North-South and South-South type); implementation of specific initiatives on the development of trade partnership and business; organic inclusion of regional South-South agreements into the Euro-Mediterranean free trade area as an important element for establishing a complete free trade area in the region.

The Black Sea Synergy aims to extend cooperation between the EU and the countries of the region that covers various groups: Greece, Romania, Bulgaria (EU member-states), Turkey (candidate for accession to the EU), Armenia,

Azerbaijan, Georgia, Moldova, Russia, Ukraine (six post-Soviet countries). In fact, the Union's approach consists of several aspects (Balcer, 2011, pp. 16–17). First, the EU stimulates regional economic cooperation and integration by means of implementing democratic reforms, strengthening institutional potential, reviving economy, and forming strong civil society. Second, relations develop on bilateral basis, which influences the dynamics of regionalism. Finally, the EU implements differentiated strategy towards Russia, Turkey and other partner countries within the European Neighbourhood Policy, which, hence, leads to them having different attitude towards the EU initiatives. The Black Sea Region is of particular importance for the European Union. Further development of the *Black Sea Economic Cooperation (BSEC)* shall contribute to the stable development of the member states which have just entered the first phase of regional cooperation.

The Neighbourhood Policy implemented by the EU (in particular, through programs of the Eastern Partnership, the Black Sea Synergy, and the Euro-Mediterranean Partnership) allows us, in fact, to recognize certain «Europeanization» of the countries in the region. Unambiguous expansion of the integration association does not occur, however, particular regional cooperation programs of the EU support other countries while they are implementing reforms, modernizing economies, and complying with European norms and principles in their institutional development.

Deep integration within the EU has become quite important for the development of international competitiveness of European producers on external markets. The situation on the global markets requires adequate reaction and adoption of an integration development strategy corresponding to those of other countries. Without taking those steps it is impossible to strengthen the positions of national companies on international markets and improve their competitiveness. The size of the EU market provides for significant influence of bilateral trade negotiations on its development tendencies. The EU represents an open economy with highly efficient market mechanisms, which has a positive impact on the welfare of member states' businesses and consumers. The aforementioned composes an attractive factor for developing partnership relations with the EU.

While multilateral system of trade relations regulation is unable to handle those issues, regional integration will gain increasing importance. Thus, the EU will develop integration relations not only with countries of the European region but also with those that are of strategic importance for the development of the competitiveness of the European economy in terms of global integration. This can be proven by the fact that only one third of 32 regional trade agreements concluded by the EU relate directly to the countries located on the European continent. 20 agreements are transcontinental in their nature. They have been concluded with the countries of Asia, Africa and Latin America, the majority of them (3/4 of the total number) having been signed between 2000 and the first half of 2012 (Regional Trade Agreements Information System. WTO). Besides, new regional initiatives of the EU have already been announced, two of them being of

transcontinental nature (regional agreements with Canada and India). A significant number of transcontinental regional have also been concluded by the EFTA; they constitute 72,7% of the total number (16 of 22 regional agreements). While implementing the strategic objective of developing the international competitiveness, the EU actively develops integration relations with countries of various regions, which allows us to distinguish between and identify the formation of the European continental and transcontinental regional integration models.

North American model of regional integration. Formation of continental and transcontinental vectors of regional integration in the NAFTA countries, similarly to those of the EU, implies two aspects: development of regional integration within the association (internal aspect of the integration component in the development strategy), and establishment of the American continental market as well as development of transcontinental integration (external aspect of the integration component in the development strategy).

Continental vector in the development of the North American model of regional integration depends on the development of integration relation between the NAFTA countries and the countries of Latin America which is of strategic importance primarily for the USA whose policy is aimed at maintaining its world leadership. Establishment of the free trade regime within the whole continent will mean that the USA will enjoy more beneficial conditions than other participants of the continental market. Countries of this region have concluded a significant number of integration agreements with the countries of other world regions. Considering this, the USA might be able to influence other world regions once the North American model of regional integration develops to the continental and transcontinental level. The following fact is guite characteristic of the North American integration. The NAFTA agreement stipulates the possibility for new countries to accede to the association (NAFTA+ model), however it does not occur in practice, while the USA, Canada and Mexico actively conclude independent agreements on free trade areas with Latin American countries (excluding Cuba).

Establishment of the *Free Trade Area of the Americas (FTAA)* was an important step in the development of the North American model of regional integration. FTAA includes 34 countries of North and South America and, in fact, covers all the countries of MERCOSUR, ANCOM, CARICOM, CACM, NAFTA, etc. The association of this kind has the highest level of mutual complementarity.

Considering the interests of both the USA and Latin American countries, it was suggested to implement the idea of a continental unified free trade area either by American or Brazilian model (Davydov, 2008; Sudariev, 2011). As early as in 1990 the USA suggested the *Enterprise for the Americas Initiative (EAI)* to be the basis for FTAA. This agreement stipulated introduction of customs liberalization, minimization of national licensing requirements for certain services, creation of a transparent government procurement market, introduction of the regime

for regulating foreign investment with minimal exceptions due to national legislation, introduction of non-discrimination and free competition regime. The agreement covered the following fields: agriculture, government procurement, investment, access to markets, subsidies, compensation payments, antidumping, dispute resolution, services, protection of intellectual property rights, competition policies. Development of negotiations on FTAA was practically blocked in 2005 by Venezuela and the MERCOSUR countries; however the idea of creating a unified continental market itself was not rejected by Latin American countries. In 2008 they suggested their own view on the development of regional integration in Pathways to Prosperity in the Americas. This initiative was supported by the USA, Canada, Mexico, Chile, Columbia, Costa-Rika, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Peru, Uruguay, and Belize. Trinidad and Tobago has the status of observer, while Inter-American Development Bank (IDB), Organization of American States (OAS), and Economic Commission for Latin America and the Caribbean (ECLAC) are considered to be the project's strategic partners.

Establishment of the FTAA was rather caused by the necessity and ability to develop the US-controlled integration than by geographical expansion factor. This is evidenced by the report of the US National Intelligence Council (Global Trends, 2025; Hashmi, 2008) which states that if the USA is unable to ensure broad access to the regional markets on the permanent basis, it will lose its traditional privilege in Latin American region as well as part of its political influence respectively. On the other hand, Latin American countries are trying to minimize the monopoly of the USA on the continent by means of granting active access to their markets to the USA and attracting foreign capital and technologies. Those measures should contribute to achieving macroeconomic stability and exportoriented development of the countries in this region.

While developing integration relations with other world countries, NAFTA countries aim their efforts at establishing mutually beneficial and parity partnerships on external markets, primarily for American and Canadian businesses. For this purpose, they use the mechanism of concluding integration agreements individually, which can explain significant intensification in this process on both continental and transcontinental levels with the USA, Canada, and Mexico actively developing regional relations of both North-North and South-South types.

Among the NAFTA countries, Mexico has concluded the largest number of existing regional trade agreements as of mid-2012 – the total of 16 agreements, every fourth of them being of transcontinental character (with EFTA, EU, Japan and Israel). Other agreements imply widening and deepening of regional cooperation with the countries of Latin America. 8 of 13 regional trade agreements concluded without the US participation are transcontinental in their nature (with Australia, Bahrain, Israel, Jordan, South Korea, Morocco, Oman, and Singapore). Canada has signed 7 regional trade agreements, including 2 transcontinental (with EFTA and Israel). Almost all of those agreements (except for the free trade

area agreement between Canada and Chile enacted in 1997) were concluded over the recent ten years. Canada has also announced the signing of 7 new regional trade agreements, 4 of them being of transcontinental character and providing for development of integration relations with Singapore, Ukraine, the EU, and Jordan.

The main partner countries of the United States which signed corresponding agreements mostly belong to developing countries. The United States implements its own political and economic interests in terms of its impact in relations with those states. The US selection criteria can be classified into four broad enough categories that even overlap in certain aspects (Schott, 2004): impact on domestic policy, economic policy, commitments of partner countries for national, regional and WTO trade reforms, foreign policy goals.

American initiatives on the development of free trade areas with the developing countries are aimed at creating new bilateral trade and investment opportunities for deepening integration between the partner countries. They, however, have certain regional peculiarities. Negotiations with African countries are complicated by the fact that these countries are unable to integrate effectively among themselves and to assume responsibility for reforms necessary for full implementation of other free trade agreements. Besides, the volume of the US trade and investment is quite small for this region. The US initiatives in the Middle East are also complicated due to insufficient level of economic reforms in the potential partner countries as well as low regional integration of those countries with their neighbours. In contrast, higher level of intraregional integration creates new opportunities for developing integration relations between the USA and the ASEAN.

Cooperation between the USA and the developed countries is based on wider range of provisions than those stipulated by a standard free trade agreement. In addition to free trade development, it covers the issues of harmonization of government procurement procedures, protection of intellectual property rights, environmental cooperation, regulation of labor markets, etc.

In future, the *Free Trade Area between the USA and the EU* (Moffett, 2012) can become transcontinental in its sense and multilateral in the number of its participants. Those two parties are considered to be the most prominent partners in the world. They have gradually started to develop a dialogue on comprehensive cooperation which should go beyond mere liberalization of trade in goods. It is assumed that free trade regime will also apply to trade in services and investment activities. It is supposed to be aimed at ensuring open markets, harmonization and recognition of relevant technical regulations, norms, rules, and standards. Harmonization of policies towards third countries can also gain increasing importance.

Thus, development of integration relations in the North American, Latin American and Caribbean countries set grounds for the development of the American continental and transcontinental model of regional integration. This

fully complies with the goal of creating a common American market. The USA is the main actor in achieving this goal due to its support to the development of the American free trade area that unites all the countries of North, Central and South America.

Asia-Pacific model of regional integration. Similarly to other models of regional integration, the integration component in the ASEAN development strategy includes intensification of integration among the ASEAN countries (internal aspect of integration component in the development strategy), and expansion of integration relations with other countries in the region within the development of continental regional integration as well as with other countries of the world within the development of transcontinental regional integration model (external aspect of integration component in the development strategy).

Today there is no integration association which would cover all the countries of the Asia-Pacific region. Besides, the fact that Japan (the leading country of the region) lacks certain strategy on formation of regional integration community has also influenced the development of regional integration processes (unlike active position of the USA in the development of the North American regional integration model or the countries that form the core of European regional integration model). It is conditioned, to a certain extent, by the fact that Japan has long been giving preference to superficial integration, which doesn't go beyond the boundaries of a free trade area.

Countries develop integration relation among themselves to achieve certain goals. Thus, developing countries primarily aim to gain additional resources and access to markets by improving political and economic management system, ensuring security, etc. The most powerful market players (Japan and China in the first place) ensure their regional leadership by means of regional mechanisms in the field of investment, anti-dumping and competition policy. The emergence of new powerful regional leaders like China and South Korea will hardly allow Japan to retain its leadership in implementing regional integration initiatives. At the same time, every country of the region is interested in providing preferential conditions for economic cooperation. It serves as an explanation for rapid development of regional integration initiatives in recent years.

For historical reasons the most powerful countries of the region (China and Japan) have different interests and positions as for economic issues. Unprogressive high-level dialogue between China and Japan can restrain sufficiently the development of regional economic integration within the countries of the Asia-Pacific region (Hashmi, 2008, p. 121). In order to reduce leadership of these countries, other Asia-Pacific countries attract partners from other regions. So, geopolitical factors will continue to determine integration processes in the region.

Further integration development in this region is linked to the *East Asian Economic Community* which is to be created by 2020 on the basis of the ASEAN. Its development implies a number of variants: ASEAN + 1, ASEAN + 3,

ASEAN + 6. The agreement on establishment in 10 years of the ASEAN+1 free trade area (ASEAN plus China) signed in November, 2004 has been of great importance in the context of the perspective ASEAN expansion. The agreement of this format creates new opportunities for development of production networks. In its turn, the development of vertical integration (especially in the field of high-technology production) can ensure effective distribution of labor and capital in the region (Wong, 2011). Apart from trade and economy, the main fields of cooperation include as follows: agriculture, telecommunications, human resources, investment, and development of the Mekong River basin. Due to sufficient strengthening of geo-economical and geopolitical importance of China in recent years, we can consider that further integration development in the region will, on the one hand, depend upon the interests of this country. On the other hand, contradictions between China and the countries of this region that consider China to be a certain menace will get tenser. That is why liberalization of trade and investment will provide for the balanced regional development.

Cooperation within the framework of the ASEAN + 3 (ASEAN plus Japan, China and South Korea) initiated in 1997 is aimed at strengthening and deepening East Asian cooperation on various levels and in various fields, and in particular, in economic, social and political areas. The ASEAN+3 project is designed for establishing the East Asia Free Trade Area (EAFTA) which covers all powerful countries of the region. This format embraces more spheres that expand significantly the scope of trade integration including diplomacy, finance, agriculture, human resources, employment, tourism, environment protection, culture, crime prevention, healthcare, energy, telecommunications, innovation, state government, etc. The ASEAN + 3 countries have already accumulated certain experience; they gradually implement joint measures in the field of financial integration by coordinating actions aimed at strengthening the stability of regional financial system and ensuring sustainable development of the countries in the region. The group is implementing the Chiang Mai initiative which implies creation of a system of multilateral currency swaps based on mutual agreements inside the group. Within the framework of this initiative in order to prevent financial crises (similar to the crisis of 1997-1998), the group has formed a bailout fund which contributes to regulating the countries' liquidity.

Development of the ASEAN+6 project (ASEAN plus Japan, China, South Korea, India, Australia, and New Zealand) provides for *Closer Economic Partner-ship in East Asia (CEPEA*) aimed at establishment of a free trade area between 16 countries of East and South-East Asia. Each ASEAN partner has already concluded relevant free trade area agreements.

The agreement on comprehensive economic partnership between the ASEAN and Japan entered into force in December, 2008. Unlike China and South Korea, Japan first concluded bilateral free trade area agreements with the ASEAN countries, and afterwards signed agreements with integration associations as a whole. This step was caused by strategic development priorities of the

Japanese business which has an extensive production and supply network in the ASEAN countries. In 2010 agreements on trade in services and investment came into force, however, existing agreements do not cover intellectual property rights. competition and government procurement. Fulfillment of the contractual obligations is characterized by significant heterogeneity of tariff reductions between the countries and product categories. Goods are divides into five groups as follows: goods subject to instant tariff reductions; goods subject to tariff reductions within a certain period of time; goods subject to no tariff reductions; special agreements and other. It is noteworthy that development of integration relations between the ASEAN and Japan is complicated due to certain lack of coordination concerning the fact that individual ASEAN countries acceded to the free trade area with Japan on bilateral terms. For instance, Indonesia and the Philippines have signed bilateral agreements on free trade area with Japan but haven't acceded to the corresponding agreement concluded by the ASEAN on the whole. And conversely, Laos and Myanmar have not signed any bilateral agreements with Japan but they are parties to the general integration agreement. Considering that under Japanese law all those agreements are equal, Japanese companies are encouraged to choose the most beneficial free trade area among the two in question.

Free trade area agreement between the ASEAN and South Korea entered into force in May of 2009 for services and in 2010 for goods. In 2009 an agreement on investment also came into force. The signing of these agreements was of great importance for both parties in terms of availability of an extensive regional production network established by the system of South Korean MNCs in the ASEAN countries. The conclusion was stimulated by corresponding free trade area arrangements of the ASEAN with China and Japan. However, the agreement between the ASEAN and South Korea does not contain provisions on intellectual property rights, competition policies, government procurement, etc.

Intensive participation in transcontinental integration contributes to simultaneous development of several integration vectors in the Asia-Pacific region. Apart from existing forms of regional integration following the financial crisis of 1997–1998, some new forms of integration relations accelerated integration development. They allow attracting extra-regional players in order to achieve balance among the participants and to ensure greater governance and liberalization for the countries of the region. Australia, New Zealand, Japan, Singapore, China, and India have been the most active participants of the relations of this kind.

Throughout history regional initiatives were implemented quite cautiously by Japan. In fact, the country's involvement in integration relations started in mid-1990s. Today, Japanese government has decided to «open the country» absolutely and become «a pioneer of the new future» which will maintain high level of economic cooperation with major trading countries as well as implement fundamental internal reforms aimed at strengthening the competitiveness of Japanese economy in the world. Currently Japan can be recognized as the leading country in creating a new Asian economic architecture (Bergsten). In 2010 the country

determined its *Basic Policy on Comprehensive Economic Partnerships* which emphasized development of cooperation with Asian countries and developing countries. Practically, Japan recognizes its primary role in the active development of bilateral economic partnership agreements in the Asia-Pacific region.

As for the main countries and regions located beyond the Asia-Pacific region, vectors of Japanese economic partnership, actually, include the following: Asia-Pacific countries, major countries beyond the region, other countries and regions. The main objective for the Asia-Pacific region is to develop a regional economic partnership within China-Japan-Korea, the *East Asian Free Trade Agreement (EAFTA)*, and the *Comprehensive Economic Partnership in East Asia (CEPEA)*.

The EU is Japan's main extra-regional strategic partner; Japan gradually discusses the possibility of commencing negotiations with the EU in the nearest future. For this reason, Japanese government has launched reforms in the system of internal non-tariff instruments of trade regulation. Other promising regions for cooperation with Japan include the countries of the Persian Gulf. All other countries can only enjoy economic partnership based on comprehensive assessment of all cooperation advantages from both economic and strategic points of view.

The ASEAN as an association has concluded 6 regional trade agreements that influence directly the Asia-Pacific countries. However, the ASEAN members actively conduct integration relations with the countries of other regions. In particular, Singapore has signed 19 regional agreements, 5 of them being of transcontinental character. They are also currently negotiating three new regional transcontinental agreements with Singapore, Canada, Costa Rica, and Ukraine. Other ASEAN countries gradually expand continental integration cooperation: Malaysia has signed 11 regional trade agreements, and Thailand has signed 9, while Brunei, Indonesia, Laos and Vietnam each have 8 agreements.

Other economic centers of Asia-Pacific region also actively develop continental and transcontinental integration. 4 of 13 regional integration agreements concluded by Japan are transcontinental in their nature (Mexico, Peru, Chile, and Switzerland). South Korea has signed 11 regional trade agreements, including transcontinental agreements with the USA, Peru, Chile, the EU and the EFTA. China is also gradually increasing its participation in regional integration; it has concluded 10 regional trade agreement, 4 of them are transcontinental (Costa Rica, Pakistan, Peru, and Chile). China has also announced the signing of regional agreements with Norway and Switzerland.

Economic development of the region will also depend on the influence of the Intergovernmental forum *Asia-Pacific Economic Cooperation (APEC)*. Its activity is aimed at developing a mechanism for harmonization of regional regulations, norms, and standards. The strategic goal of this forum is to liberalize trade and investment in the Asia-Pacific region by 2020 through the following basic ar-

eas: trade and investment liberalization, business promotion, economic and technical cooperation. 21 countries of various world regions are members of this association, respectively, it is a transcontinental organization. However, diverse membership causes a strong conflict of interest, which affects its efficiency. Thus, establishment of a free trade area within this association will greatly depend on the priorities of the USA, Japan and China involved in other integration processes including some alternative initiatives as well.

Trans-Pacific Strategic Economic Partnership agreement (TPP) is a fundamentally new vector of transcontinental integration. This initiative was proposed by Singapore, Chile, New Zealand and Brunei; in 2008 it idea was supported by the USA; Australia, Malaysia, Peru and Vietnam acceded to this partnership later, while Canada, Japan and Mexico still intend to accede (Trans-Pacific Partnership). This agreement, actually, initiated the development of multilateral transcontinental cooperation actively promoted by the USA, since strengthening role of Asian countries in the world has become a significant impetus to the constructive dialogue on trade and economic issues in order to prevent discrimination against the USA. The agreement contains the following basic issues that are traditional for regional trade agreements: trade in industrial, agricultural and textile goods, intellectual property rights, technical trade barriers, labor, environment, competition policies, provisions on trade in innovative goods and services, including digital technologies. This agreement has a feature not typical of other regional trade agreements. It includes issues concerning the development of compatible business regulation systems, in particular, for small and medium enterprises, as the key resource for innovation and job creation. On the one hand, this will allow American companies to receive wider access to the markets of partner countries; on the other hand, it will enable companies of partner countries to participate in international trade more actively.

The recent financial and economic crisis of 2008–2009, in fact, confirmed the development of all regional integration initiatives in accordance with two vectors: *East Asian Community* and *Asia Pacific Community*. These vectors are aimed at developing regional integration; however, its content and membership are not defined. We can talk about a certain "spaghetti bowl" in the Asian region, since the number of integration agreements with numerous members is quite significant. The ASEAN member states depend on the same processes of microeconomic dynamics that are related to production regionalization of East Asian and Japanese MNCs. Given this, the ASEAN + 3 (China, Japan and South Korea) is more promising in terms of establishing an effective institutional basis for further development of the Asia-Pacific model of regional integration. It is most likely that certain elements of common market will be developed (free movement of capital and labor). It is also likely that the countries will apply zero tariffs in intraregional trade with optional common external tariff, which means the application of a limited common market form (the "Common Market minus" arrange-

ment). This format is aimed at establishing a completely integrated market where individual regions leave their deeper integration to a later period.

Thus, development of integration processes in the Asia-Pacific region, including the establishment of sub-regional, interregional and trans-regional associations based on principles of open regionalism, deep Asian solidarity and all-Asian values, defines the Asia-Pacific continental and transcontinental models of regional integration that depend on intraregional cooperation determined by Japan, China, South Korea and the ASEAN countries.

The strategy for integration development of the world countries emphasizes the following two aspects: first, peculiarities and vectors of developing the integration relations directly within the existing integration association (internal regional component); second, vectors of integration policy directed towards other countries that get involved in the integration relations within continental and transcontinental models (external component).

Deepening and expansion of integration depends on the optimal use of the integration development potential which differs substantially for the basic models of regional integration. It is necessary to perform comprehensive evaluation of the intensity of various factors (both internal and external) and their influence. This proves that it is expedient to apply integral indices to evaluate the integration development potential. Those indices will provide comprehensive and quantitative characteristics of the economic integration processes occurring in the world economy at a given time.

We suggest evaluating the potential of the regional integration development by means of the *integral index of integration development potential*. For this purpose, it is necessary to introduce relevant notations and explanations. Suppose at a given time there is a set of m integration groups in the world economy. Their level of development is characterized by a system of n parameters (single indicators). Let's denote them by  $Xi = (x_{i1}, x_{i2}, ..., x_{ij}, ..., x_{in})$ , where i is the index of integration group under analysis ( $i = \overline{1,m}$ ), and j is the index of the single indicator that characterizes the integration relations ( $j = \overline{1,n}$ ). Thus,  $x_{ij}$  is a value of indicator j for integration group i.

In order to calculate the integral index it is important to consider the following methodological recommendations: 1. to form the system of single indicators (parameters) that would describe adequately and fully the condition of the regional economic integration development; 2. to choose the form of the integral index itself that would provide a comprehensive evaluation based on the system of single indicators.

The former can imply the use of respective systematized indicators assessing the depth of the countries' integration relations. Systematization and classification of the single indicators proves that integration development level is conditioned, on the one hand, by intraregional factors that determine the scale, depth and specificity of regional relations development within the framework of the existing regional integration associations, and on the other hand, by the influence of external factors that determine the role and place of the integration association in the global processes. The choice of the aforementioned factors is based on the results of correlation and regression analysis presented in Table 1 of the APPENDIX. The system of single indicators which form the integral index is shown in Table 1 below.

Table 1
The system of single indicators

Intraregional factors		External factors			
Intraregional trade per capita, millions of USD	X <sub>Intra</sub>	Share of the integration association's regional trade in the world trade, %	X <sub>Intra</sub> S		
Share of intraregional trade in the total foreign trade, %	ITS	Share of the integration association's investment in the world investment, %	FDIS		
ICT share of intraregional export, %	X <sub>Intra ICT</sub>	Share of the integration association's GDP in the world GDP, %	GDPS		
Investment rate per capita, USD	FDI	Share of the integration association's population in the world population, %	PopS		
GDP per capita of the integration association, USD	GDP	Share of the integration association's ICT export in the world ICT export, %	X <sub>ICT</sub> S		

In order to make all the single parameters comparable, it is necessary to standardize them, which will enable them to be further combined in the integral index. One can calculate those standardized estimations by the formulas:

$$P_{ij} = \frac{X_{ij} - X_{\min}}{X_{\max} - X_{\min}} \tag{1}$$

$$P_{ij} = \frac{x_{\text{max}} - x_{ij}}{x_{\text{max}} - x_{\text{min}}} \tag{2}$$

where:  $x_{ij}$  is the value of the single indicator j for the integration association i,

 $x_{min}$ ,  $x_{max}$  respectively, is the minimum and the maximum value of the single indicator j.

Calculation of standardized estimations by Formula (1) is used if the increase of the value of a particular parameter results in an increase of the integral index ( $stimulating\ indicator$ ). On the contrary, if the value of a single indicator increases while the final index value decreases (de- $stimulating\ indicator$ ) Formula (2) is to be applied. It is obvious that certain single indicators describing different aspects of integration relations do not equally affect its overall state. Thus, while calculating the integral index of integration development potential it is necessary to determine the significance of every indicator, i. e. their importance coefficient  $\alpha_{ii}$ .

As for the form of the integral index, it is most common to apply various types of weighted average values for calculating generalizing indicators in research works (arithmetic, geometric, quadratic and other). The analysis of the practical use of various weighted average values shows that in case if monotonous increase of an individual parameter results in its improvement and the generalizing integral index of this state needs to be maximized it is most advisable to use geometric weighted average as a form for the integral index. It can be pre-

sented as follows: 
$$I_i = \prod_{j=1}^n (P_{ij})^{\alpha_j}$$
 wherein  $\alpha_j \ge 0$  and  $\sum_{j=1}^n \alpha_{ij} = 1$ .

The use of the above formula for calculating the weighted average value of the integral index of regional development is justified by the provisions of axiomatic approach (monotonicity axiom, linear homogeneity axiom, identity axiom, and multiplicativity axiom) described in the index theory by I. Fisher. Considering the aforementioned, the formula for calculating the integral index of integration development potential is:

$$IPD = \frac{I \operatorname{int}_i + I \operatorname{ext}_i}{2} \,, \tag{3}$$

where: IPD<sub>i</sub> is the general integral index of integration development potential;

*I<sub>inti</sub>* is the intraregional component of integration development potential;

 $I_{exti}$  is the external component of integration development potential.

The sub-index characterizing the influence of the intraregional component on the general integral index of integration development is calculated by the following formula:

$$I_{\text{int}_i} = \sqrt[5]{P_{X \text{int } ra_i} \cdot P_{ITS_i} \cdot P_{X \text{int } raICT_i} \cdot P_{FDI_i} \cdot P_{GDP_i}}$$
 (4)

The sub-index characterizing the influence of the external regional component on the general integral index of integration development is respectively calculated by the following formula:

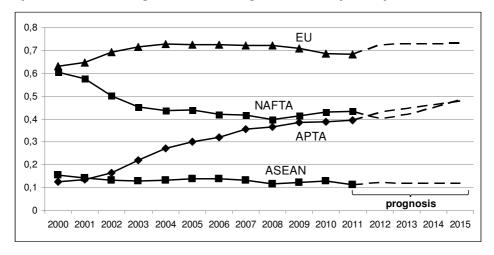
$$I_{ext_i} = \sqrt[5]{P_{X \text{int } raS_i} \cdot P_{PopS_i} \cdot P_{X \text{ICT } S_i} \cdot P_{FDIS_i} \cdot P_{GDPS_i}}$$
 (5)

The proposed integral index ranges from 0 to 1, its proximity to 1 indicates significant potential of integration development. Application of the integral index in comprehensive comparative analysis allows for accounting the impact intensity of many factors (both internal and external). This enables to formulate a generalized comprehensive and quantitative description of economic integration processes occurring in the world economy within the framework of certain regional models.

The suggested method was used to calculate the integral index of integration development potential for the EU, NAFTA, ASEAN, and APTA. The calculation included the intensity of the factors that determine the intraregional component of integration development as well as factors that allow us to evaluate the external component of integration development determined by the role of the integration association in the world economy. The UNCTAD statistical database was used to perform the calculations. The integral indices of integration development potential are summarized in Table 2 of the APPENDIX and in Fig. 1.

Figure 1

Dynamics of the integral index of integration development potential



According to the sub-indices characterizing the influence of the intraregional component on the general integral index of integration development, the EU has the highest potential (it has increased from 0,61 to 0,72). This once again indicates the highest level of integration relations that the Union has achieved compared to other integration associations. The NAFTA also has a quite high sub-index of intraregional component (0,58 in 2011), however, it decreases gradually. Assessment of the influence of the external integration component on the integration development discovered that rapid growth occurs in the APTA countries (from 0,23 in 2000 to 0,642 in 2011), which have almost caught up with the EU (0,644) in this sub-index.

The general integral index of the potential of regional integration development proves that the highest potential that tends to increase gradually is characteristic of the EU (0, 68). Despite the fact that the index of the NAFTA is relatively high (0, 43), it is declining quite rapidly. The most active development is demonstrated by the APTA where the general integral index of integration development potential increased from 0,127 to 0,396 in 11 years (2000–2011).

In conclusion, it is worth mentioning that today a universal model of regional trade agreement does not exist. Thus, in most cases, every country or integration association applies comprehensive approach when using the opportunities provided by integration agreements with regard to access to the new markets, expansion of investment opportunities, decrease of transaction expenses, establishment of unified technical norms and requirements, protection of intellectual property rights, establishment of unified competition policies, and transparency of state regulation mechanism. In general, this comprehensive approach contributes to the deepening of integration relations with partner countries and to the formation of predictable political conditions that influence the development of trade and economic cooperation with all the regions within a certain interstate economic space, and thus, it contributes to the expansion of continental and transcontinental integrative cooperation.

Expansion of the most developed models of regional integration that have already been formed (European, North American and Asia Pacific) will cause the most powerful influence on the regionalization of the world economy under further globalization. Involvement of other countries in this process on regional, continental or transcontinental basis by means of free trade areas or other forms of «soft» integration will promote the development of the «new regionalism» and the emergence of fundamentally new integration formations of rather transcontinental than continental nature that will correspond to the level of international metaregions in the world economy. Due to this, continental and transcontinental regional integration are mutually complementary vectors of the world economy regionalization. The countries of the world choose their own strategy for participating in regional integration depending on the objectives set forth by their level of social and economic development, existing potential, character of foreign relations, etc. The following two aspects should be emphasized with regard to inte-

gration component in the further development strategy of the world countries. First, certain attention should be focused on features and trends of integration relations directly within the existing integration association. Second, it is important to determine the vectors of integration policy towards other countries involved in relations based either on continental or transcontinental model.

Further research on continental and transcontinental regional integration models is a logical continuation of the analysis of international economic integration models, covering many other areas apart from trade and economics (in particular, production). At the same time, existing objective restrictions will cause the research on transcontinental integration to be conducted exclusively in terms of trade and economic cooperation, since deeper forms of integration will face difficulties of institutional character.

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# **Appendix**

Table 1
Results of correlation and regression analysis of intraregional trade ( $X_{intra}$ )
EU, NAFTA, ASEAN, APTA

#### EU

Factors	Regression	Elasticity				
1 actors	coefficient	coefficient				
GDP per capita, millions of USD	130,2647	1,305492				
ICT export, millions of USD	1,961292	0,152931				
FDI (inflow), millions of USD	-0,14551	-0,277184				
Population, thousands of people	29,04114	5,180026				
$R^2 = 0.9743$						
$X_{intra} = 130,26*GDP + 1,96*X_{iCT} - 0,15*FDI + 29,04*Pop - 1483424,58$						

## **NAFTA**

Regression	Elasticity						
coefficient	coefficient						
52,40168	2,119695						
5,186308	0,560561						
-0,03817	-0,16249						
-6,20109	-3,34038						
$R^2 = 0.9725$							
$X_{intra} = 52,4*GDP + 5,19*X_{iCT} - 0,04*FDI - 6,2*Pop + 1494523,34$							
	coefficient 52,40168 5,186308 -0,03817 -6,20109						

## **ASEAN**

Factors	Regression	Elasticity				
raciois	coefficient	coefficient				
GDP per capita, millions of USD	161,0476	1,82068				
ICT export, millions of USD	1,951287	0,492421				
FDI (inflow), millions of USD	-0,24749	-0,76421				
Population, thousands of people	0,035534	0,112483				
$R^2 = 0.9941$						
$X_{intra} = 161,05*GDP + 1,95*X_{iCT} - 0,25*FDI + 0,04*Pop - 117405,82$						

## **APTA**

Factors	Regression coefficient	Elasticity coefficient					
GDP per capita, millions of USD	79,12081	0,991164					
ICT export, millions of USD	3,253449	0,690553					
FDI (inflow), millions of USD	-0,04201	-0,14778					
Population, thousands of people	-0,29826	-5,20732					
$R^2 = 0.9948$							
$X_{intra} = 79,12*GDP + 3,25*X_{iCT} - 0,04*FDI - 0,3*Pop + 709704,6$							

Table 2
Integral indices of integration development potential

Year	General integral index			Intraregional component			External component					
	of integration development			of integration development			of integration development					
	potential			potential			potential					
	APTA	ASEAN	EU	NAFTA	APTA	ASEAN	EU	NAFTA	APTA	ASEAN	EU	NAFTA
2000	0,1268	0,1549	0,6305	0,6057	0,0183	0,2294	0,6074	0,6341	0,2353	0,0804	0,6535	0,5772
2001	0,1361	0,1440	0,6471	0,5763	0,0290	0,2234	0,6238	0,6140	0,2431	0,0645	0,6704	0,5385
2002	0,1645	0,1335	0,6926	0,5008	0,0674	0,2251	0,6785	0,5884	0,2617	0,0418	0,7066	0,4132
2003	0,2192	0,1287	0,7159	0,4529	0,0914	0,2270	0,7013	0,5679	0,3470	0,0304	0,7305	0,3380
										0,0427		
2005	0,3015	0,1392	0,7243	0,4395	0,1097	0,2272	0,7106	0,5554	0,4934	0,0513	0,7380	0,3236
2006	0,3200	0,1407	0,7241	0,4216	0,1075	0,2263	0,7111	0,5261	0,5325	0,0550	0,7372	0,3170
2007	0,3559	0,1327	0,7210	0,4180	0,1394	0,2274	0,7274	0,5307	0,5725	0,0380	0,7146	0,3053
2008	0,3671	0,1181	0,7230	0,3968	0,1487	0,2121	0,7373	0,5157	0,5855	0,0240	0,7087	0,2779
2009	0,3849	0,1218	0,7098	0,4145	0,1495	0,2107	0,7261	0,5372	0,6203	0,0328	0,6935	0,2918
2010	0,3898	0,1298	0,6881	0,4298	0,1487	0,2224	0,7156	0,5671	0,6310	0,0373	0,6607	0,2924
2011	0,3956	0,1144	0,6830	0,4337	0,1490	0,1975	0,7220	0,5813	0,6423	0,0313	0,6440	0,2861

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