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Global Determinants of the International Movement of Production Factors: Economic-legal and Institutional Context

Monograph

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Abstract

Scientific research is devoted to current problems of the influence of globalization on changes in the international movement of production factors in the 21st century. Considerable attention is focused on the economic, legal and institutional aspects of the transformation of the international movement of capital and labor in modern conditions, taking into account the need to apply an integrated interdisciplinary approach to identify new phenomena and processes that occur in the global economic environment. The state and trends of development in the organization of global production, investment and marketing in the context of destabilizing phenomena in the global economy, the strengthening of non-protectionist appeals in the world avant-garde countries to return production to the national territory and the exacerbation of social and economic problems caused by international migration are revealed. The authors are looking for answers to difficult questions about the opportunities for small open economies to be attracted to global value chains through the format of investment and contractual relations, to increase the level of localization of international and national production through import substitution, to optimize the taxation of entrepreneurial activities in a liberalized international capital transfer, transform the national regulatory policy as a mechanism that ensures the possibility of taking into account the imperatives of globalization and contributes to the protection of national economic interests, ensure the development of fair competition as a prerequisite for the country's integration into world economic processes.

Keywords

International movement of production factors, national economic interests, small open economics, regulatory policy, global imbalances, international capital movement, liberalization of international capital transfer.

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Preface

A scientific research is presented on topical issues of the influence of globalization on changes in the international movement of production factors in the 21st century. It summarizes the results of long-term scientific searches of reputable scientists and young researchers representing the scientific school of international economic studies of the Kyiv National University of Trade and Economics.

The monograph focuses on the economic, legal and institutional aspects of the transformation of the international movement of capital and labor in the modern era, given the need to use an integrated interdisciplinary approach to identify new phenomena and processes in the global economic environment.

In the first chapter, the authors reveal the changes occurring in the organization of global production and sales related to the cross-border movement of capital and the formation of international production networks with the participation of transnational companies. The possibilities of diversifying the economic activities of countries integrated into global production networks and overcoming their economic and technological backwardness are analyzed. It is determined that the participation of enterprises of different countries in international production networks is asymmetric, due to the influence of determinants of economic, legal and institutional level, which contribute to or, conversely, impede active industrial integration, and then economic growth in certain countries.

The second chapter focuses on the newest transformations in the organization of international production of transnational companies through the non-equity format of contractual relations, which are alternative direct investments. It is determined that the participation of countries in the system of international cooperation, including in the format of non-investment contractual relations, contains a number of possibilities in terms of increasing the share of employees, simplified access to foreign markets, increasing the level of organizational and technological culture of production processes, however and certain challenges, such as: the conditionality of the technological level of national production by endogenous factors, the localization of low-income production processes and economic territory of the state; a high level of dependence of the national economic dynamics of non-resident demand.

The third chapter describes the impact of global financial imbalances on modern capital flows and the macroeconomic effects of cross-border

investment for countries integrated into these processes. The authors prove that the asymmetric effects of the uneven global investment development often take the form of the negative effects of the globalization of the world economy for individual groups of countries, and in recent years for individual regions. It is determined that in conditions of intense competition of countries for investment resources, the issue of creating an effective institutional and economic mechanism for attracting them and neutralizing negative impacts is being actualized.

The fourth chapter focuses on the issue of capital intellectualization as answers to the increasing complexity of competitive conditions for companies in international markets, a variety of tools to achieve and consolidate competitive advantages in terms of relationships with both consumers and other counterparties (suppliers, retailers, joint investment partners, scientific research, marketing, etc. projects). It is determined that the reorientation of international competition into the sphere of intangible assets forces companies to adhere to a proactive strategy and implement permanent transformations through intellectual capital management to create unique key competencies and enhance the dynamic capabilities of external expansion.

The fifth chapter reveals the latest trends in the international transfer of labor resources in the context of the modern understanding of the role and place of external labor migration in the reproduction processes of open economies. It is determined that external migration becomes a powerful channel for the integration of countries into the world economic space, at the same time exercising a controversial influence on the socio-economic, political, demographic and ethno-cultural development of states. The authors prove that the asymmetric and unbalanced participation of countries in the international transfer of labor force actualizes the problems of forming effective institutional mechanisms for its regulation.

The sixth chapter focuses on the problematic aspects of the implementation of national trade policy in the context of an unprecedented aggravation in the international competition for strategic resources and factors of production, the conditions of production and marketing of goods. Consideration is given to the combination of states with the status of members of global trade institutions of obligations to liberalize access of non-residents to domestic markets with the effective use of customs-tariff regulation tools to protect domestic producers

The seventh chapter examines the possibilities of increasing the level of localization of international and national production through import substitution. On the basis of significant empirical and statistical material, the degree of dependence of national economies on the import component in the context of intermediate and final consumption is estimated and proposals on approaches to selective import substitution are formulated.

The eighth chapter focuses on the legal aspects of business taxation in the context of the liberalization of international capital movements.

It is determined that taxation is currently turning into one of the key determinants of choice by international corporations of the host country. This causes a variety of schemes used by corporations for tax purposes, and greatly complicates the mechanism of legal regulation of such actions of business entities. It is substantiated that the regulation of tax planning of international corporations should be carried out simultaneously at the national, regional and international levels, which will ensure maximum flexibility and effectiveness in the use of regulatory tools.

In the ninth chapter, the author considers the legal provision of fair competition in Ukraine as a prerequisite for integration into world economic processes, in particular, special attention is paid to the concept of «fair competition». At the same time, the legislation on ensuring fair competition in Ukraine as a whole, and the Ukraine-EU Association Agreement as a model of the integration model of harmonization and unification of competition legislation and law are systematically considered. It is determined that the provision of legislative conditions for the free and unhindered implementation of fair competitive competition is one of the leading directions in the implementation of state legal policy.

Such authors took part in the preparation of the monograph.

Melnyk Tetiana – chapter 1, 3,5,7 (co-authorship).

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Chapter 1

Analysis of participation of Ukrainian enterprises in international industrial networks

1.1 Determinants of enterprise integration in international production networks

The concept of globalization of the world economy has changed the usual structure of economic activities of the economies of many countries. Thus, the need to optimize the process of creating global GDP began to dominate the national interests of individual countries, and their participation in integration groups and global production, of which international production networks (IPN) are an integral part, is now regarded as an opportunity to diversify the economy and overcome economic and industrial backwardness. At the same time, the participation of enterprises in different countries in the IPNs is not the same, which is due to the influence of determinants that contribute to or, conversely, impede active industrial integration, and then economic growth.

The dynamic development of international production networks as a new efficient, flexible and adapted to the conditions of this form of industrial integration is based on the postulates of a number of international trade theories, namely: A. Smith and D. Ricardo's theories of absolute and comparative advantages, according to which countries specialize in the production of those goods which they can produce at relatively low costs compared to other countries (with lower opportunity costs), based on the labor theory cost, and the main factor of competitive advantage is labor, and E. Heckscher, B. Ohlin, and P. Samuelson factor ratio theory, which proved that the presence of comparative advantages in a country depends on the availability level of production factors, which, besides labor, include land, capital, etc. [65, p. 94–96]. So, the basis for the implementation and the engine of industrial integration are the production factors.

The significant increase in volumes and the complication of international trade led to the emergence of previously unknown macroeconomic effects, which were caused by the action of factors that were later included

in the list of existing factors of production, namely, entrepreneurial ability, science and information. However, in order to simply list the existing determinants, they should be analyzed and systematized according to the hierarchy and the level of their influence on the degree and speed of integration into the IPN.

So, at the first level are the factors that directly provide the production process. According to the classical approach, they include labor, land and capital. However, in the context of industrial integration, the «land» factor can be refined by the provision of production with certain resources—raw materials and materials used in the production process and on which the quantity and quality of products depends. At the second level, there are determinants that ensure the effective (or vice versa) use of previous factors, that is, they create an appropriate environment for their search and use. This group includes the factor of business environment conditions (in the context of integration in IPN, this factor can be interpreted as institutional conditions for the functioning and interaction of the internal and external markets). At the third level, there are factors that ensure the development and effective functioning of the second level determinants, which in turn allows an increase in the level of performance of the first level determinants (Fig. 1.1).

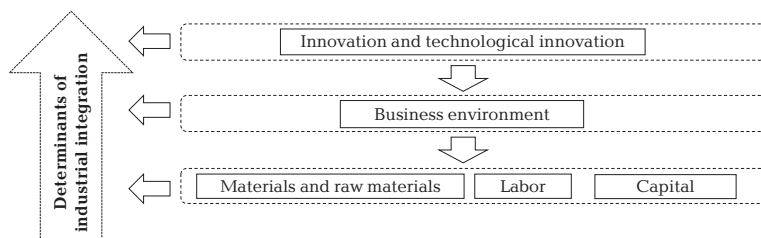


Fig. 1.1 Determinants of industrial integration of national enterprises.

Source: built by the author

One of the key determinants of the first level is the level of resource provision for the needs of production with our own materials and raw materials. However, apart from a quantitative measurement of the production level with own resources, it is important to assess the qualitative side of this indicator, it is possible to carry out by calculating such indicators: the degree of economy's dependence on cheap natural resources, the degree of fixed assets (FA) depreciation in industries, the level of implementation of new FAs in industry and emissions of major pollutants per person (Table 1.1).

Calculated in Table 1.1 data indicate that the production of industrial products in Ukraine is quite resource-intensive and environmentally hazardous, as evidenced by the ultra-high values of indicators of the depreciation of fixed assets (66.5 % for the study period), insufficient provision of own

materials and raw materials (54 %) and low the level of introduction of new Fas (45.9 % over the study period). Outdated technologies in the extractive and processing industries, which account for an average of 60 – 70 % of output, cause a high level of production costs, and a low level of provision of enterprises with fixed assets and a high degree of wear and tear lead to their inefficient use in the production process [41, p. 215; 42, p. 69].

Table 1.1 Dynamics of indicators of resource provision of the economy of Ukraine in 2005 – 2015

Indicator	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
The provision degree of the economy with its own materials and raw materials, %	59.0	57.6	57.5	52.0	54.9	52.9	51.5	51.4	53.3	50.6	59.0
The dependence degree of the economy on cheap natural resources, %	9.4	8.9	8.4	7.1	7.3	9.0	9.2	8.6	9.8	10.5	9.4
The depreciation degree of fixed assets in industry, %	58.0	60.0	57.0	59.0	60.0	74.9	75.9	76.7	83.5	60.1	58.0
The level of introduction of new fixed assets in industry, %	47.1	46.8	46.5	46.3	46.1	45.9	45.7	45.6	45.5	43.0	47.1
Emissions of major pollutants per person, kg/person	59.0	57.6	57.5	52.0	54.9	52.9	51.5	51.4	53.3	50.6	59.0

Source: calculated by the author according to [27; 53; 54]

Under such conditions, it becomes important to ensure the accelerated dynamics of technological base renewal of most industries, it is possible to implement through the integration of national enterprises into international production networks, which will help differentiate the sources of financing technological upgrades through increased investment in the form of direct and portfolio investments. Otherwise, the preservation of existing trends only increase the technological gap between Ukraine and the developed countries of the world in the field of industrial production.

The next important determinant is «labor». It should be considered not only as a labor force, but as one of the criteria for the efficiency of enterprises, can be analyzed in aggregate according to such indicators as: labor productivity in industries, the level of employment in the whole country, the share of employed population in industries, the share of wages fees in the overall structure of gross value added in the country (Table 1.2).

Table 1.2 Key indicators of the labor market in Ukraine in industries in 2005 – 2015

Indicator	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
The share of employment in industries, % of the total	19.69	19.47	19.01	18.46	17.57	17.08	16.50	15.90	16.41	16.04	16.24
The need for workers in industries, % of the number of hall	32.70	32.73	33.82	25.80	22.34	26.92	27.99	28.40	24.21	25.50	25.87
The ratio of the average monthly wage in industries with a total figure for all industries	1.20	1.16	1.10	1.12	1.11	1.15	1.18	1.16	1.15	1.15	1.14
The level of tax burden on personal income	0.12	0.09	0.11	0.11	0.11	0.11	0.12	0.11	0.12	0.13	0.13
Labor productivity in industries, billion USD/ thousand people	4.56	5.66	15.53	9.35	6.38	7.40	8.81	9.38	9.70	6.87	7.24

Source: calculated by the author according to [37; 55; 56]

As can be seen from the Table 1.2, the share of employment in industries is declining annually. The situation is similar with the indicator of the need of enterprises for employees. One of the main reasons for this is the decline of key industries: the lack of updating of the main technological units, the closure of individual production plants, but sometimes enterprises as a whole. Another reason is that certain industries become «unpopular» among the able-bodied population aged 25 to 35 because of the relatively low level of potential wages: if the average monthly wage in industries in 2015 was 4791 UAH, in financial and insurance sectors this figure amounted to 8603 UAH, in the field of information and telecommunications – 7112 UAH, in the field of professional scientific and technical activities – 6737 UAH (for comparison, the total average monthly wage in 2015 amounted to 4195 UAH) [27]. For the same reason, there is a «brain drain» of the older working-age population.

Another point that is worth paying attention to is that although the average monthly wage in industry is only 15 % higher than the average for the economy as a whole, it occupies the lion's share in the value structure of gross value added for certain types of economic activity (Table 1.3).

Table 1.3 Structure of gross value added by individual types of economic activity in 2005 – 2015, %

Type of economic activity	Remuneration of employees				Other taxes and subsidies related to production				Gross profit, mixed income			
	2005	2009	2013	2015	2005	2009	2013	2015	2005	2009	2013	2015
Agriculture	19.4	18.9	23.2	14.6	12.2	2.9	0.5	0.6	68.4	78.2	76.3	84.8
Mining industry	57.4	52.0	78.1	64.0	-5.1	-20.2	-19.9	-3.6	47.7	42.1	41.7	39.6
Processing industry, including:												
Food production	58.2	56.3	74.6	65.3	16.0	16.7	3.8	2.7	25.8	27.0	21.6	32.0
Food processing	34.7	21.8	58.6	44.8	28.9	40.0	2.8	2.6	36.4	35.5	38.6	52.6
Light industry	26.5	22.1	88.4	63.3	45.7	50.8	1.4	1.4	27.8	27.1	10.2	35.3
Wood and paper production	54.4	45.4	69.0	47.5	14.2	18.6	3.7	3.0	31.4	36.0	27.3	49.5
Production of coke and refined petroleum products	41.2	43.1	89.2	61.9	33.1	-18.6	6.0	5.1	25.7	29.4	4.9	33.0
Chemicals and pharmaceuticals	41.8	36.1	88.4	64.8	39.8	49.3	1.8	3.3	18.4	14.6	9.9	32.0
Rubber and plastic products production	54.3	55.7	55.3	57.7	5.9	3.4	2.9	4.0	39.8	40.9	33.2	38.3
Production of other non-metallic mineral products	63.7	64.7	64.6	72.2	3.9	3.4	3.9	3.7	32.4	31.9	31.5	24.1
Metallurgical production	81.8	82.5	82.4	50.9	11.0	10.7	7.7	3.7	7.2	6.8	9.9	45.4
Production of finished metal products, except machinery and equipment	80.4	81.9	81.6	70.8	5.2	3.6	3.7	2.9	14.4	14.5	14.7	26.3
Production of computers, electronic and optical products	79.8	81.4	81.3	84.5	2.9	2.4	2.7	2.0	17.3	16.2	16.0	13.5
Electrical equipment production	72.4	74.8	76.0	56.9	6.0	2.8	2.6	1.9	21.6	22.4	21.4	41.2
Production of machinery and equipment not classified in other groups	68.3	70.2	72.6	71.6	4.3	1.7	1.5	1.6	27.4	28.1	25.9	26.8
Production of motor vehicles, trailers and semi-trailers	79.8	81.6	83.7	108.9	4.9	2.6	2.9	2.5	15.3	15.8	13.4	-11.4
Vehicle production	50.4	51.7	53.2	59.1	4.9	1.5	1.4	1.4	44.7	46.8	45.4	39.5
Production of furniture, other products; repair and installation of machinery and equipment	42.8	31.1	75.1	64.6	29.9	29.6	2.8	2.1	27.3	39.3	22.1	33.3

Source: built by the author according to [27; 57; 58; 59; 60; 61; 62; 63]

So, most of the gross value added (GVA) in the industry is wages of employees, while gross profit and income account for a very small percentage. For comparison, in the field of agriculture the share of wages in the structure of gross value added for the period 2005 – 2015. On average, it is 19 % and about 77 % is accounted for by gross profit, whereas for the extractive industries, the corresponding figures are 63 and 43 %, and for the manufacturing industries, 64 and 27 %, respectively.

The largest share of remuneration in the GVA structure belongs to such foreign trade activities: production of motor vehicles, trailers and semi-trailers (88.5 %), production of computers, electronic and optical products (81.8 %), production of finished metal products, except machinery and equipment (78,7 %), as well as the production of machinery and equipment not covered by other groups (70.7 %). As for gross income, the largest share of this component in the GVA during 2005 – 2015 have: production of other vehicles (44.1 %), food industry (40.8 %), production of rubber and plastic products (38.1 %), production of wood and paper (36 %), production of furniture and other products, repair and installation of machinery and equipment (30.5 %), as well as the mining industry (42.8 %). The high proportion of gross profits and remuneration in the GVA is attributed to the influence of production-related subsidies, which occupy about 12 % in the GVA during the investigated period (20.2 % in 2009, 19.9 % in 2013, and 3.6 % in 2015).

Profit becomes one of the decisive factors in making decisions about the implementation of investments, the next determinant of industrial integration. Capital in the form of investments is a source of modernization and diversification of production, which is extremely important for the branches of industrial production in Ukraine. The dynamics of the volume of investment in the industry are given in Table 1.4.

The highest value of the volumes of foreign direct and capital investments in Ukraine was observed in 2013, which was caused by an increase in the volume of investments in the field of industrial production. Thus, the shares of capital investments (CI) and foreign direct investment (FDI) in the industry in 2013 were 40.6 and 31.1 %. The increase in CI and FDI in industry was aimed at increasing production, confirming the value of the share of gross capital accumulation in industrial production (41.7 % in the total structure of Gross Fixed Capital Formation (GFCF) in 2013). However, in subsequent years, it is possible to observe a decline in capital investment, especially capital investment (by 11.83 % in 2014). As for FDI, although their volume decreased by 19.89 %, the share of FDI in industry increased in the total structure to 31.6 %. Despite a further reduction in the share of CI and FDI in industry in 2015, the GFCF volume increased by 24.62 %, the share of industry in the total GFCF structure increased to 37.2 %.

With the intensive integration of the countries of the world in IPN, the phenomenon of foreign investment is the main source of international transfers of capital and technology through global chains of production,

distribution and consumption. The decision of foreign investors in relation to the subjects of investment and the support of partnership with them are based on factors of IPN distribution, depending on the segment, existing tasks and activities of international production networks, as well as the potential profit level of participants, they can get. Thus, out of the total amount of FDI accumulated in the world, more than half falls on intra-regional territories (primarily at the expense of the EU countries), and the Europe-Asia-United States triad is the basis of the global investment system, with the EU core (Table 1.5).

Table 1.4 Dynamics of investment in industrial production of Ukraine in 2005 – 2015

Year	Capital investment in industry		Foreign direct investment in industry		Gross Fixed Capital Formation in industries	
	Million UAH	Share in total capital investment structure	Million USD	Share in total foreign direct investment structure	Million UAH	Share in the total Gross Fixed Capital Formation structure, %
2005	35031.1	37.6	5169.2	30.6	49350.0	49.3
2006	44803.6	35.8	6111.1	28.3	63921.0	46.4
2007	64341.4	34.1	8004.1	27.1	94791.0	46.5
2008	76617.7	32.9	8052.6	22.6	122248.0	47.6
2009	57657.6	38.0	9021.9	22.5	74738.0	43.1
2010	50879.9	32.3	13526.2	30.9	85563.0	42.4
2011	73443.6	34.7	14497.7	29.6	97872.0	39.5
2012	83290.6	34.1	16496.4	30.7	113734.0	40.2
2013	93847.6	40.6	18067.5	31.1	109840.0	41.7
2014	82743.8	40.5	14472.5	31.6	80404.0	35.8
2015	84168.0	33.5	13280.1	30.6	100200.0	37.2

Source: built by the author according to [27; 47; 48; 49; 50]

The data of Table 1.5 show that the share of developed countries in the global accumulation of FDI in industry is gradually decreasing with a simultaneous increase in the share of developing countries. This phenomenon has been repeatedly explained and confirmed by Paul Krugman. In his «core-periphery» theory, he proved that over time, industrial production, as well as investment in them, in the IPN framework moves from developed countries to developing countries through a significant difference in labor costs, transportation costs and availability of resources [67, p. 45; 80, p. 485–486]. So, in 2015 compared to 2014, the share of developing countries (which include Ukraine) increased behind accumulated FDI by 0.97 % and amounted to 74.1 billion USD, which is 20.29 billion USD, or 37.71 % more compared with developed countries.

Table 1.5 Dynamics of FDI in industry in the world, billion USD

Countries	2009	2010	2011	2012	2013	2014	2015	Shares of countries in the FDI distribution in industry, %						
	2009	2010	2011	2012	2013	2014	2015	2009	2010	2011	2012	2013	2014	2015
World	74.8	133.9	203.3	113.1	125.7	138.7	141.25	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Developed countries, including:	37.89	66.19	105.23	43.96	49	53.51	53.81	50.7	49.4	51.8	38.9	39.0	38.6	38.1
EU countries, incl.:	22.22	36.15	58.59	18.37	21.29	22.02	23.4	29.7	27.0	28.8	16.2	16.9	15.9	16.6
France	1.49	3.17	4.61	2.26	1.26	1.22	1.24	2.0	2.4	2.3	2.0	1.0	0.9	0.9
Germany	1.46	6.19	7.1	1.13	2.31	2.46	2.51	2.0	4.6	3.5	1.0	1.8	1.8	1.8
Poland	0.79	1.31	2.48	0.52	0.18	0.17	0.28	1.1	1.0	1.2	0.5	0.1	0.1	0.2
Bulgaria	0.35	0.37	0.23	0.13	0.14	0.13	0.21	0.5	0.3	0.1	0.1	0.1	0.1	0.1
USA	8.81	18.64	26.79	13.69	16.28	16.28	17.24	11.8	13.9	13.2	12.1	13.0	11.7	12.2
China	6.61	10.83	14.82	10.29	10.73	10.88	11.03	8.8	8.1	7.3	9.1	8.5	7.8	7.8
Canada	1.41	2.64	4.78	3.66	5.37	5.9	6.5	1.9	2.0	2.4	3.2	4.3	4.3	4.6
Australia	1.65	3.39	7.77	4.76	4.33	4.65	5.24	2.2	2.5	3.8	4.2	3.4	3.4	3.7
Developing countries, including:	32.63	61.02	86.7	61.99	67.35	72.14	74.1	43.6	45.6	42.6	54.8	53.6	52.0	52.5
Russia	2.26	4.05	6.58	4.34	6.84	7.23	7.11	3.0	3.0	3.2	3.8	5.4	5.2	5.0
Kazakhstan	0.87	0.71	1.64	1.19	0.87	0.93	1.34	1.2	0.5	0.8	1.1	0.7	0.7	0.9
Ukraine	0.4	0.44	0.49	0.54	0.58	0.36	0.43	0.5	0.3	0.2	0.5	0.5	0.3	0.3

Source: calculated by the author according to [27; 31; 32; 33; 34]

Ukraine's share in the global distribution of FDI in industries is insignificant: in 2015, it accounted for only 0.3 % of the total FDI. This indicates that Ukraine's industrial production is less attractive for foreign investors than in other countries, and given the recent events, they prefer more stable conditions and areas of investment. Analysis of the FDI distribution by industry provided an opportunity to identify similar and distinctive features in the distribution structure of FDI in Ukraine and the world (Table 1.6).

The largest in the structure of accumulated in the industry foreign direct investment in Ukraine is the share of the metallurgical industry (35.6 % in 2015), the food industry (16.2 %) and the chemical industry (15.6 %). High-tech national productions are less attractive for foreign investors: the FDI share in domestic engineering industry was only 6.5 %, in pharmaceutical production – 0.3 %. The FDI distribution across industries has shown that there are significant differences in the structure of investment processes between developed countries and developing countries. For example, in Ukraine, the FDI share in the primary sector prevails, while the FDI share in the processing industry is less global (81.9 compared to 84.0 % in the world), although if to compare this figure with such countries as Russia, Kazakhstan, Poland and Bulgaria, it is more. This situation is explained by the fact that the raw materials industries of Ukraine are less risky for foreign investors in the context of economic and political instability.

The volume of FDI, regardless of its type and form of implementation, is largely influenced by domestic tax legislation. So, according to Art. 136.3 and Art. 141.4.2 of the Tax Code, the tax on income of non-residents from joint activities in Ukraine, or ordinary dividends from foreign investment are taxed at a rate of 15 % and deducted from the amount of income received until it is received by a non-resident or directly during [37]. It is worth emphasizing that setting the repatriation tax rate at a level lower than the corporate income tax rate (18 %) plays a more compelling role for investment.

It should be added that foreign direct investment is a source of raising the innovative level of a country's development and a tool for modernizing and diversifying its industrial sector in the context of integration into IPN [77]. So, depending on how much FDI is relative to the country's GDP (very high, high, medium, low), the integration level of the economies of individual countries into the global reproduction process and the gross value added created in the country within the IPN framework (Table 1.7) [82, p. 81; 84, p. 5].

Form Table 1.7 it can be seen that a high share of FDI in relation to GDP contributes to an increase in the share of foreign value added in exports, an increase in the level of integration of the country in global value chains and an increase in the value added of trade within IPN to GDP. If the FDI share in relation to GDP is insignificant, then their volume is directed mainly to participation in global value chains, which is explained by the interest of foreign investors in the development of, first of all, individual technological areas and capacities, and only then the country's economy.

Table 1.6 FDI distribution by industry in Ukraine and the world in 2015, in %

Industries	World	Developed countries, including:	EU countries including:	France	Germany	Poland	Bulgaria	USA	China	Canada	Australia	Developing countries including:	Russia	Kazakhstan	Ukraine
Mining industry	9.1	8.8	7.8	7.3	6.9	8.1	8.3	6.8	5.1	4.9	6.8	9.6	9.9	9.8	10.2
Processing industry, including:	84	83.1	83.2	83.3	83.6	82.1	81.8	84.6	85.1	85.2	83.5	83.6	82.6	80.9	81.9
Food production	17.1	16.9	17.6	17.9	16.8	17.2	17.3	17.7	18.1	18.6	18	17.8	18.6	17.5	16.2
Light industry	3.4	3.1	2.7	1.9	1.8	2.4	3.6	3.6	3.9	2.6	2.1	2.5	2.1	3.6	1.9
Production of wood products, paper and printing	2.8	1.1	1.9	1.7	1.5	3.1	3.9	2.7	2.5	2.4	2.5	3.2	3.1	2.9	2.9
Production of coke and refined petroleum products	3.6	4.1	2.2	2.8	3.5	4.4	3.5	4.8	1.6	2.1	1.4	2.8	2.7	2.7	3.2
Chemical industry	19.2	18.2	17.3	17.8	17.9	18.3	15.5	18.2	19.1	18.9	18.5	15.9	16.8	16.1	15.6
Metallurgy	26.8	27.3	28.6	28.1	26.3	24.8	28.3	26.5	24.8	25.4	26.6	31.6	32.1	31.4	35.6
Mechanical engineering	11.1	12.4	12.9	13.1	15.8	11.9	9.7	11.1	15.1	15.2	14.4	9.8	7.2	6.7	6.5
Other industries	6.9	8.1	8.4	9.4	9.5	9.8	9.9	8.6	9.8	9.9	9.7	6.8	7.5	8.6	7.9

Source: calculated by the author according to [27; 47; 48]. 100 % is total foreign direct investment in industry

Table 1.7 Indicators of the integration level of the country's economy in the IPN depending on the FDI share in relation to GDP, %

Countries ranked by FDI share of GDP	The share of foreign value added in exports	Participation in global value chains	Share of IPN's value added in GDP
Very high share of FDI in GDP	34	58	37
High share of FDI in GDP	24	54	30
Average share of FDI in GDP	17	47	24
Low share of FDI in GDP	18	47	21

Source: [30; 74]

Therefore, in order for FDI to become a full-fledged factor in raising the level of economic development as a whole, the country must have the potential to realize national interests and regulate FDI in the direction of solving its strategic objectives.

The next determinant of industrial integration is the business environment. Depending on the chosen model of international trade, this factor can play both stimulating and restrictive actions for individual sectors of the economy in the context of integration into the IPN. For example, an unreasonably selected set of instruments of economic, tax, industrial and other policies can create barriers for new entities to enter certain markets, restrict access to new technologies, provoke a deterioration in the investment climate and repel foreign investors. All this has a negative impact on the development of the factors mentioned above and deprives the country of competitive advantages in the production and sale of goods.

The key indicators that reflect the state of the business environment are: the index of ease of doing business, the level of tax burden on production, the level of ease of foreign trade, etc. (Table 1.8).

Table 1.8 Comparative characteristics of ease of doing business and carrying out foreign trade operations in some countries of the world in 2016

Indicator	Ukraine	USA	France	Germany	China	Poland
Place of the country on the index of ease of doing business	83	7	27	15	11	25
The number of taxes that enterprises pay	5	11	8	9	9	7
The number of required documents for export	8	3	2	4	8	5
Number of documents required for import	9	5	2	4	5	4
Average export duration, days	5	2	1	1	2	1
Average import duration, days	5	2	1	2	3	2

Source: compiled by the author using the materials [31]

According to the World Bank, Ukraine ranks 83rd in terms of ease of doing business among 189 countries of the world in 2016 [31]. Next to it are such countries as: Brunei, China, Uzbekistan, Saudi Arabia, Malta, Bosnia and Herzegovina. Those countries with which Ukraine directly borders and the smallest distance are higher in rating (Belarus 44th place, Moldova 52, Poland 25 Romania 37, Hungary 42, Slovakia 29).

In contrast to developed countries, Ukraine requires a greater number of documents for processing export and import operations (except for

China – the number of documents for export is the same as in our country), which to some extent complicates and/or makes it impossible to optimize international trade in intermediate goods. It is also worth looking at the existing level of protection of the national market and exclude situations where duties on imported components are higher than finished products. Today, the policy of protectionism should be aimed at protecting global value chains, namely: reducing costs, simplifying international trade procedures, using weighted rates of duties on imported components.

In this context, the WTO Multilateral Agreement on Trade Facilitation, adopted on November 27, 2014, and ratified on November 4, 2015, is extremely important [14, p. 1090; 22, p. 61]. This Agreement is aimed at simplifying the procedures of export-import transactions and the creation of favorable conditions for trade in intermediate and final products. The implementation of the areas identified in the Agreement, according to forecasts of the Economic Commission for Europe, will reduce trade costs by 14 % in low-income countries and by more than 13 % in countries with higher than average income by optimizing the flow of goods across the border.

Important determinants in the context of industrial integration are also innovations and technological renewal, or in other words, the factor of innovative development. In the world, the trend of symbiosis of science and industry has long existed, they have resulted in the creation of network structures, and actively implement the results of research and development in practice. In Ukraine, the situation is the opposite. Today, almost 95 % of Ukraine's industrial products are produced in the third and fourth technological orders, while the advanced countries of the world are switching to technologies of the fifth and sixth structures (annual growth rates of the core of these modes are 35 % [9, p. 257, 15, 16, p. 25]). Innovative activity (IA) is characterized by a low level: the share of enterprises introducing innovations is 15.2 % of their total number, while the share of innovative products in the total volume of products sold in the domestic and foreign markets is only 1.4 % in 2015 (Table 1.9).

So, from Table 1.9 it is clear that the innovation activity of Ukrainian enterprises is in decline. Over the past 10 years, the number of enterprises engaged in innovation activity and introducing innovations has significantly decreased (by 31 % and 11 %, respectively, in 2015 compared to 2005). Particular attention should be paid to the indicator of the IA costs. In 2005–2011 this figure has grown by an average of 23 % annually, and since 2012, the IA cost has decreased significantly, due to the reduction in sales of innovative products, including outside Ukraine.

Therefore, the share of enterprises engaged in research and innovation is tens of times less than in developed countries, and due to lack of funding, their number decreases annually [77, p. 26–28]. In the future, only some large industrial enterprises or specialized medium and small enterprises, which annually become more interesting for foreign investors in terms of

the amount of required capital and the rate of return on invested resources, can afford to engage in the development and implementation of the results of scientific and innovation activities [72, p. 5–9].

Table 1.9 The dynamics of the main indicators of innovation activity of enterprises in the industries of Ukraine in 2006–2015

Indicator	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Dynamics of the number of enterprises engaged in innovative activity	0.937	1.317	0.949	1.010	1.036	1.148	1.047	0.976	0.938	0.512
Dynamics of the number of enterprises introducing innovations	1.233	1.187	0.978	1.017	1.031	1.090	1.033	0.957	0.921	0.599
Dynamics of the number of enterprises that sold innovative products	0.898	1.127	0.959	1.001	0.970	1.082	1.953	0.506	0.878	0.630
Including outside Ukraine	0.875	1.059	0.955	0.979	1.027	1.102	0.878	1.036	0.858	0.722
Dynamics of the share of sold innovative products in the total volume of sold industrial products	1.031	1.000	0.881	0.814	0.792	1.000	0.868	1.000	0.758	0.560
Dynamics of costs for innovation	1.071	1.757	1.108	0.663	1.012	1.782	0.801	0.833	0.805	1.795

Source: calculated by the author according to [27; 51; 52]

In order to assess the impact of the innovation factor on the development of industrial sectors, it is necessary to carry out model calculations. One of such approaches is the modeling of the gross output of the production method, taking into account the influence of factors on the production process in the industry and is a production function, in general it looks like this:

$$Y = F(Re_{s_1}, \dots, Re_{s_i}), \quad (1.1)$$

where Y – volume of output; F – function that displays the dependence of the output on factors; Re_{s_i} – demand for resources (factors) of i production.

In the traditional sense, this function is two-factor and provides for the analysis of changes in production volumes of two variables, namely: labor and capital (Cobb-Douglas model) [64, p. 9–12; 69, p. 129–131]. However, over time, it is clear that in conditions of intensive development of the economies of many countries of the world, other factors of endogenous and

exogenous nature significantly affect the volume of gross output, as a result of which a formalized presentation of the production function has undergone a number of changes and clarifications. The most famous among the modified production functions that take into account the factor of innovation development are: J. Tinbergen model, which takes into account the factor of scientific and technological progress (STP), R. Solow model, which investigates the development of the economy in conditions of intensification of production; Denison model, reflecting the impact of «materialized» scientific and technological progress (in this case, the amount of capital invested in human development is analyzed) and others [7, p. 8].

In our opinion, the most acceptable in this research is J. Tinbergen model of economic development. Using this model to assess the impact of the innovation factor and technological renewal of the Ukrainian economy will be based on the assumption that the innovation factor is aimed at increasing production volumes.

$$Y = A \cdot e^{\beta t} \left(\prod_{i=1}^n R e_{S_i^{\alpha_i}} \right), \quad (1.2)$$

where A – production factor; e – innovation factor; β – innovation coefficient; t – sequence number of the period; α_i – elasticity coefficient.

All modifications of the traditional Cobb-Douglas model provide for an intensive nature of economic growth (Table 1.10).

Table 1.10 Types of economic growth in the production method

Types of economic growth	Coefficient equations	Explanation
Intensive	$\alpha_1 + \alpha_2 + \dots + \alpha_n > 1$	Production function with increasing returns to scale. Depending on the factor that has a greater impact on economic growth, it is possible to talk about the qualitative composition of such growth
Extensive	$\alpha_1 + \alpha_2 + \dots + \alpha_n = 1$	Production function with constant returns to scale
Decline (recession)	$\alpha_1 + \alpha_2 + \dots + \alpha_n < 1$	Production function with descending returns to scale. Occurs when factors of production are growing at a higher rate than output

Source: compiled by the author using the materials [64, p. 13]

We preliminarily determined and substantiated that in the conditions of intensive development of the world economy, the level of integration of Ukraine's industry in IPN, in addition to traditional factors of production, innovation and technological component, is greatly influenced by the factor of foreign investment, which ensures the introduction of new technologies

and increasing the quality of other factors 71, p. 5–7]. Taking into account these assumptions, the production function is formalized as follows:

$$Y = A \cdot e^{\beta t} \cdot L^{\alpha_1} \cdot K^{\alpha_2}, \quad (1.3)$$

$$\ln(Y) = \ln(A) + \beta \cdot t + \alpha_1 \cdot \ln(L) + \alpha_2 \cdot \ln(K), \quad (1.4)$$

where Y – volume of gross output of industry; A – coefficient of proportionality or scale; e – Euler number (the base of the natural logarithm is 2.71828); β – innovation coefficient that must be determined; L – total number of people employed in industries; K – volume of gross fixed capital formation in industries; α_1, α_2 – coefficients of output elasticity on the factors of production, which it is necessary to determine; t – sequence number of the period.

Input data for the calculation are listed in the Table 1.11.

Table 1.11 Dynamics of indicators of activity of Ukrainian industrial enterprises included in the production function

Year	Input data				Logarithmic data for calculation			
	Y	L	K	t	Y'	L'	K'	t
2005	444522	1072.4	49350.0	1	13.00475	6.977654	10.80669	1
2006	508595	4036.9	63921.0	2	13.13941	8.303232	11.0654	2
2007	652392	3973	94791.0	3	13.3884	8.287277	11.45943	3
2008	851696	3871.4	122248.0	4	13.65498	8.261371	11.71381	4
2009	718082	3546.9	74738.0	5	13.48434	8.173829	11.22174	5
2010	911037	3461.5	85563.0	6	13.72234	8.149457	11.35701	6
2011	1104758	3352.7	97872.0	7	13.91514	8.117521	11.49142	7
2012	1104212	3236	113734.0	8	13.91464	8.082093	11.64162	8
2013	1037383	3170	109840.0	9	13.85221	8.061487	11.60678	9
2014	1131867	2198.2	80404.0	10	13.93938	7.695394	11.29482	10
2015	1392241	2573.9	100200.0	11	14.14643	7.853178	11.51492	11

Source: compiled and calculated by the author according to [27]

In order to find the coefficients α_1, α_2 and β , the Ordinary Least Squares (OLS) is applied based on the software Statistica 10.1. As a result of the calculation, the following values of the coefficients are obtained: $\alpha_0=88.290336$, $\alpha_1=-0.01925$, $\alpha_2=0.44124$, $\beta=0.08225$, coefficient of determination $R^2=0.9602$, value of the Fisher criterion (F_c)= 56.34 , and the number of degrees of freedom= 11 ; F_{tabl} with a probability of 96 % for degrees of freedom $m-1=2$ and $n-m=8$ is equal to 4.96. Subject to the performance of $F_c > F_{tabl}$ ($56.34 > 4.96$), it can be argued that this model is adequate and statistically significant.

Thus, the production function of the dependence of the volumes of industrial output on factors is:

$$Y = 3985.17 \cdot L^{-0.01925} \cdot K^{0.44124} \cdot e^{0.08225t}$$

Thus, with an increase in the number of people employed in industries by 1 %, gross output is reduced by 0.02 %. This situation can be explained by the fact that now most industrial enterprises are moving to a new level of using factors of production — the introduction of technologically complex facilities and mechanisms. At the same time, with the GFCF growth by 1 %, the gross volume of industrial output will increase by 0.44 %. As for the factor of innovation, it is worth noting here that it creates conditions for the additional growth of gross output to the account of the activation of innovative activity by 0.08 %.

The analysis of the above determinants reveals the strengths and weaknesses of the development of industrial production sectors in the context of integration in IPN as a whole and shows that Ukraine's industry is currently in decline, as evidenced by the equation of the coefficients of influence factors of the function ($\sum \alpha_i < 1$), which shows that the growth rates of production factors exceed the growth rate of gross output.

It is also important to analyze the determinants by type of economic activity (TEA), since the individual factors in the course of their interaction have different effects for each of the TEAs, which is explained by the specificity of their actions.

As indicated above, the level of development of production factors significantly affects the degree of specialization and the presence of competitive advantages in production and exports, and this, in turn, has a decisive influence on the potential of enterprises of individual foreign economic activities to integrate into the global production process, in particular, into international production networks. Such a potential can be determined by assessing the total impact of the determinants of industrial integration. To this end, we propose to use the methodology of the World Economic Forum (WEF) to determine, systematize and aggregate indicators (determinants, expressed in quantitative indicators) into a composite index. This method provides a hierarchical structure for constructing an index, which, within the framework of this research, has a tree-like appearance (Fig. 1.2).

The hierarchical structure of the index of potential capacity for industrial integration consists of four levels:

- at the first level is directly integrated indicator — the index of potential ability to industrial integration (*IPOi*), which allows to assess the potential of enterprises of certain types of economic activity for integration into the IPN from the standpoint of its formation and implementation in existing conditions;

- at the second level, there are generalizing bases – conditions for ensuring economic development, which allow assessing what factors the economic development of a country takes in a certain period by evaluating;
- at the third level there are directly components of the conditions for ensuring economic development – a sub-index of production factors that influence the development of industries that are different for each of the foreign economic activity;
- at the fourth level there are indicators that represent a quantitative reflection of the development level of production factors.

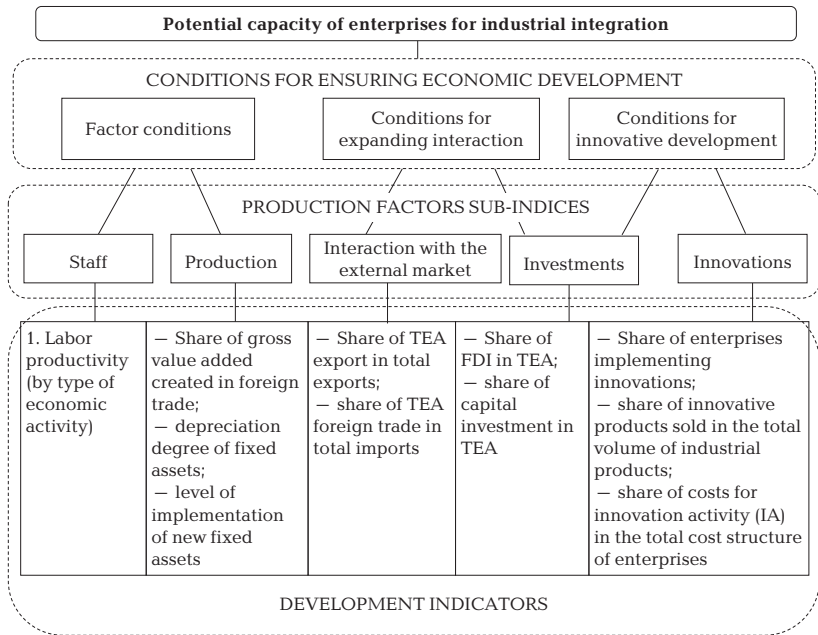


Fig. 1.2 Potential capacity of enterprises for industrial integration.

Source: compiled by the author

The WEF methodology provides for the calculation of integral indices by gradually building indicators to the sub-index level (determining their shares within the sub-index), from the sub-index level to the base level, and finally combining the bases into a composite index, based on determining the weights for each of them. which are distributed depending on the specific stage of economic development (Table 1.12).

In order to determine the stage of the country's economic development, it is necessary to analyze several indicators, namely: the level of GDP

per capita and the dependence degree of the country's economy on the use of cheap production factors and natural resources (a country is considered dependent if the share of raw materials exports is about 70 %) [34]. So, for the period 2005 – 2016, the share of exports of raw materials in the structure of exports did not exceed the value of 45 %, and therefore the determination of the stages of economic development will be based on the data of the indicator of GDP per capita (Table 1.13).

Table 1.12 Relative weights of bases for specific stages of a country's economic development, %

Conditions for economic development	Stage of economic development of the country				
	Factor stage	Transition from factor to effective stage	Effective stage	Transition from efficient to innovation stage	Innovation stage
GDP per capita, USD	Up to 2000	From 2001 to 3000	From 3001 to 9000	From 9001 to 1700	From 17001
Factor conditions	60	60–40	40	40–20	20
Conditions for expanding interaction	35	35–50	50	50	50
Conditions for innovative development	5	5–10	10	10–30	30

Source: compiled by the author according to [34]

Table 1.13 The stage of economic development of Ukraine according to the WEF methodology

Year	GDP per capita, USD	Stage of economic development	Year	GDP per capita, USD	Stage of economic development
2005	1828.7	Factor	2011	3570.8	Effective
2006	2303	Transition from factor to effective stage	2012	3856.8	Effective
2007	3068.6	Effective	2013	4030.3	Effective
2008	3891	Effective	2014	3014.6	Effective
2009	2545.5	Transition from factor to effective stage	2015	2115.4	Transition from factor to effective stage
2010	2974	Transition from factor to effective stage	2016	2185.73	Transition from factor to effective stage

Source: compiled by the author according to [27; 31]

So, for the period 2005 – 2016, the country is mainly at the stage of transition from factor to effective development (characteristic of the post-crisis

period) and at an effective stage. Taking into account the above, and with the aim of approving the method of integrated assessment, let's calculate the index of potential capacity for industrial integration. Given current trends, the calculation of the index is based on the following assumptions:

- each of the components of the conditions for ensuring economic development consists of a large number of indicators that are affected. The above list is not exhaustive and can be expanded and supplemented, however, within the framework of this research, indicators are taken into account, which, in our opinion, comprehensively reflect the development dynamics of key factors of production and can be reliably and quantitatively determined based on existing statistical data;
- the use of weights for the bases depends on the level of economic development of the country. For Ukraine, during the investigated period, the stage of transition from a factor to an effective development and an effective stage are typical, and the average value of GDP per capita is almost \$ 3000 per capita, which allows using weighting coefficients corresponding to the effective stage (40:50:10);
- the calculation is carried out by gradually combining indicators into sub-indices (based on the assumption that all indicators have the same degree of impact within the sub-indices), sub-indices to bases (based on the assumption that all sub-indices have the same degree of impact within the baseline), bases to the level of conditions ensuring economic development (using the weights determined in the previous paragraph);
- the sub-index «Investments» in the context of integration in IPN simultaneously belongs to the bases of the «Conditions for expanding interaction», since it contributes to the diversification and intensification of the country's participation in international trade, and the «Conditions for innovative development», since the well-known fact that investments are a source of support for innovation;
- in order to normalize statistical data for the calculation of sub-indices, all components (indicators) are given to the type of the ratio of data on the i -th TEA to the average for all TEAs, which allows to reveal the comparative competitive advantages of certain TEA in the total sample.

In the context of integration in the IPN, almost all of the above in Fig. 1.2 determinants can be attributed to promoting industrial integration, except for one – the depreciation degree of fixed assets. It is a deterrent and restrictive factor and, thus, has a reverse effect on the index of potential capacity for industrial integration.

Since the normalization of indicators is carried out on the basis of a comparison of indicators for each of the TEA with the average, the value of the index of potential capacity for industrial integration does not have a specific quantitative framework, but is focused on maximization: $0 \leq IPO_i; IPO_i \rightarrow \max$. The results of the calculations of the integral indicator for certain types of economic activities related to sections A (Section 01. Agriculture,

hunting and provision of related services), B, C, D, E by the KVED-2010 based on data for 2009–2015 are given in Table 1.14 (the lack of statistical data on individual indicators for 2016 does not allow for more relevant calculations).

Table 1.14 Index of potential capacity for industrial integration for certain types of economic activity

Type of economic activity	2009	2010	2011	2012	2013	2014	2015	\overline{IPOi}
Agricultural production	1.59	1.61	1.74	1.68	1.72	1.87	1.79	1.71
Mining industry	1.55	1.60	1.57	1.49	1.42	1.51	1.47	1.52
Food industry	1.61	1.54	1.42	1.58	1.31	1.63	1.47	1.51
Light industry	0.62	0.67	0.61	0.59	0.55	0.48	0.53	0.58
Production of wood products, paper and printing	0.64	0.59	0.62	0.61	0.65	0.58	0.63	0.64
Production of coke and refined petroleum products	0.78	0.72	0.79	0.87	0.81	0.75	0.84	0.79
Chemical production	0.74	0.71	0.68	0.51	0.69	0.61	0.73	0.67
Pharmaceutical production	0.49	0.48	0.50	0.47	0.52	0.49	0.56	0.50
Production of rubber and plastic products and other non-metallic mineral products	0.53	0.57	0.51	0.54	0.59	0.61	0.52	0.55
Metallurgical production	1.82	1.73	1.89	1.91	1.87	1.98	2.01	1.89
Production of computers, electronic and optical products	0.38	0.24	0.28	0.36	0.31	0.29	0.37	0.32
Electrical equipment production	0.53	0.44	0.51	0.53	0.41	0.47	0.41	0.47
Production of machinery and equipment not classified in other groups	0.73	0.61	0.67	0.65	0.71	0.69	0.77	0.69
Production of motor vehicles, trailers and semi-trailers	0.37	0.42	0.39	0.41	0.47	0.42	0.44	0.42
Vehicle production	0.54	0.58	0.51	0.49	0.58	0.47	0.52	0.53
Production of furniture, other products, repair and installation of machinery and equipment	0.54	0.56	0.44	0.48	0.41	0.51	0.46	0.49

Source: compiled by the author according to [27; 57–63]

As a result of the carried out calculations, the types of economic activity according to the existing potential for production integration can be divided into three groups:

- Group I – economic activities that have a high potential for industrial integration in comparison with other TEAs. This group included four types of activities ($IPOi$ is in the range from 1.00 to 2.00): metallurgical production (1.89), agriculture (1.71), mining (1.52), food production (1.51).
- Group II – economic activities, the potential for industrial integration of which is at an average level ($IPOi$ is in the range from 0.63

to 1.00). This group includes: production of coke and refined petroleum products (0.84), production of machinery and equipment not classified by other groups (0.77), production of chemical products (0.73 production of products from wood, paper and printing (0.63).

– Group III – economic activities that are inferior to the previous TEAs in terms of the potential capacity for industrial integration, that is, they have a relatively low potential ($IPO_i < 0.6$). This group includes: production of pharmaceuticals (0.56), production of rubber and plastic products and other non-metallic mineral products (0.52), light industry (0.53), production of other vehicles (0.52), furniture production, other products, repair and installation of machinery and equipment (0.46), production of motor vehicles, trailers and semi-trailers (0.44), production of electrical equipment (0.41), production of computers, electronic and optical products (0.37).

Thus, the gap between the I and II groups by the index of potential capacity for industrial integration is quite significant (the maximum value in the first group is 1.47, in group II – 0.84), the high value of this indicator in low-tech industries confirms that Ukraine has the predominantly raw orientation of participation, mainly due to the direct influence of the determinants of industrial integration, the level and dynamics of which for some TEAs may contribute to the deepening of participation in the IPN, and for others become impediments intensive integration.

The key factors that impede active integration in IPN are: low level of technological renewal (modernization and diversification) of industrial production sectors; imperfection of institutional leverage, which complicates international trade in intermediate goods; imbalance in the FDI distribution and the lack of a unified strategy of investment policy in industries. In such a situation, the priority is elimination or minimization of the influence of restrictive factors and enhance the action of factors that promote active integration.

1.2 Evaluation of the participation of national companies in global value chains

Global value chains (GVC), which are elements of production networks, play an increasing role in the dynamic development of the world economy. There are formed mechanisms for creating a global gross product, which generate added value at all stages of the production process, from one technological link, located in one country to the next – in another. Studies of recent years show that participation in GVC is the engine of economic growth in developing countries, since conditions are created for diversifying and modernizing the technological base of industries, access to new markets and know-how opens up [17, p. 49].

According to the report, jointly prepared by the OECD, WTO, UNCTAD for the period 2000–2015, the share of countries creating products under the GVC increased on average by 9–14 % [28; 30], with the share of developing countries increasing the most. Under such conditions, the significance of the phenomenon of circulation trade, or in other words, the reimport of intermediate components in the composition of finished products, is significantly enhanced, which is the basis for GVC existence. This fact causes a large number of misunderstandings and difficulties in determining the dynamics of international trade, because it leads to a double counting in the process of moving intermediate components, and also complicates the process of determining the country of origin of goods. Increasing the volume of circulation of trade significantly distorts the data on statistics of movement of goods and the structure of world trade.

The results of the research of D. Hummels, J. Ishii and K. Yi [79] confirm the fact that the accelerated growth of world trade is due precisely to the fragmentation of production, and more precisely, to the increase in the share of trade in intermediate consumption goods for the production of goods subsequently exported. That is why the efforts of scientists and specialists of leading world organizations are aimed at identifying and analyzing net trade flows, determining the shares of gross value added (GVA) of domestic and foreign origin in exports, as well as in the general structure of value added created in various spheres of economic activity.

The ratio of domestic and foreign gross value added in exports is influenced by a number of factors that directly depend on the level of a country's economic development. These include the size and structure of the country's economy, the structure of exports (Fig. 1.3).

From Fig. 1.3 it can be seen that domestic value added prevails in the economy of large countries and/or in countries where the primary sector occupies the largest share in the structure of the economy. However, there are certain exceptions. Thus, large economies such as the USA, China, Germany and Japan mainly specialize in products of the secondary and tertiary sectors, however, their structure is dominated by the share of domestic value added (in Fig. 1.3 this situation is shown in dotted lines), which is explained by the fact that countries are focused on protecting national producers, and thus restrict imports. For participation in GVC, they are mainly suppliers of intermediate products of varying degrees of complexity to other countries that are recipients.

The average value of the indicator of foreign value added in exports in the whole countries of the world is about 28 %. For developed countries, this figure is 31 %, which is slightly higher than the average value and means that there is more dependence of the export of these countries on the import component [30]. However, it should be noted that the overall indicator is significantly influenced by foreign trade within the highly integrated economies of the EU countries, which account for about 70 % of international trade. Therefore, the average value of the share of foreign value added in

the exports of developing countries, although lower than the average in the world (25 %), at the same time it is higher than the similar indicators of the United States and other Eastern countries (Fig. 1.4).

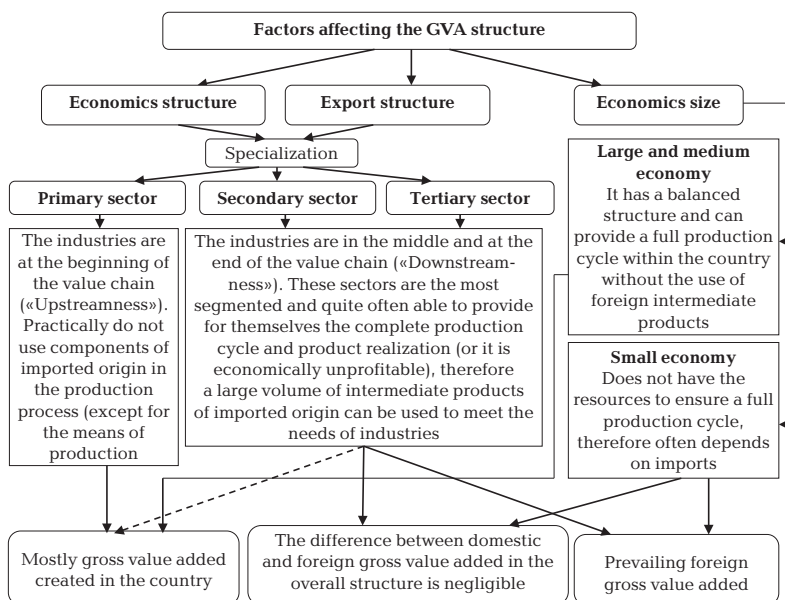


Fig. 1.3 Factors influencing the structure of the gross value added of the country.
Source: built by the author according to [30]

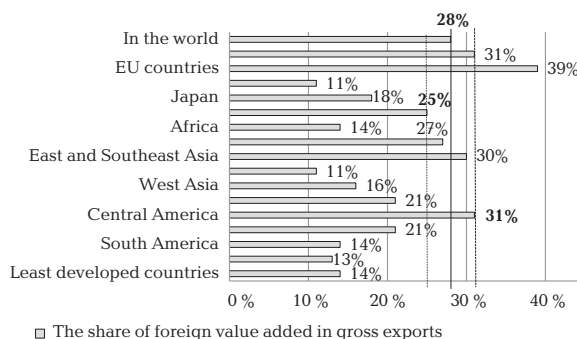


Fig. 1.4 The average value of the share of foreign value added in gross exports in the world (28 %). The average value of the share of foreign value added in gross exports in developing countries (25 %). The average value of the share of foreign value added in gross exports in developing countries (31 %).

Source: compiled by the author according to [30]

The total exports of most major developed countries, as well as countries exporting natural resources, include a large share of domestic value added: the United States (89 %), Brazil (87.3 %), Japan (87.8 %), Australia (88.6 %), Russia (98.8 %) and others. The situation is different in developing countries, which are the engine for increasing the volume of trade within the IPN framework. Thus, the share of domestic value added in exports of Mexico is 51.7 %, Taiwan 59, Malaysia 59.5, Thailand 60.3, Vietnam 63, China 63.6, South Korea 66.1, Eastern Europe 69.3, all the rest is the value added of foreign origin [40, p. 52 – 54; 85].

Countries with capacious markets (USA, Japan) and a significant raw material component in exports (Russia, Saudi Arabia) have the lowest indicator of foreign value added. Due to the domestic value added, 82 – 91 % of their exports are formed. Even despite the active foreign economic activities of American TNCs, the share of foreign value added in US exports is only 11 %, which reflects the significant role of national producers in exports, as well as the wide possibilities for fragmentation of the value creation process within the United States. Countries with small markets and deep involvement in the GVC (Hong Kong, Singapore, Belgium, etc.) On the contrary, have the smallest share of domestic value added (36 – 56 %) [36, p. 124 – 127].

There are also significant differences between the EU countries regarding participation in GVC, although on average all of them are characterized, as already noted, the share of foreign value added in foreign trade is quite high. According to the data of the World Bank, Belgium, the Netherlands, Great Britain, and Germany are the most included in the GVC. For example, 39 % of German exports are imported semi-finished products, components, materials, and in the Netherlands and Belgium, the value created in other countries is more than half of exports [13, p. 59 – 60].

As for Ukraine, despite a certain specialization in the production and export of raw materials industries, it can be assumed that the share of value added of domestic origin prevails in the GVA structure. To confirm (or refute) this fact, indicators of value added of domestic and foreign origin in exports are calculated using formulas. Calculated data is listed in Table 1.15.

Calculated data in the Table 1.15 confirm the global trend in the structure of value added, created in the low technological and non-technological industries. Thus, the average value of the indicator of value added of domestic origin in the processing industries for the period 2009 – 2015. It is 71.8 %, which corresponds to global trends.

The largest share of domestic value added in the country's total exports in 2009 – 2015 They have agriculture (81.9 %), production of non-metallic mineral products (94.1 %), food industry (85.4 %), production of wood, paper, printing activity (85.8 %). An increase in the share of import value added in total exports in these TEAs would lead to an increase in the cost of production, due to which domestic goods would be non-competitive in the world market price.

Table 1.15 Shares of value added of domestic and foreign origin in exports in 2009 – 2015

Indicator	2009		2010		2011		2012		2013		2014		2015	
	GVA	FVA	GVA	FVA	GVA	FVA	GVA	FVA	GVA	FVA	GVA	FVA	GVA	FVA
Agriculture	78.30	21.70	71.89	28.11	79.93	20.07	84.59	15.41	83.67	16.33	84.84	15.16	90.10	9.90
Mining industry	59.07	40.93	65.35	34.65	61.08	38.92	68.94	31.06	72.21	27.79	70.37	29.63	67.21	32.79
Processing industry, including:	71.08	28.92	72.39	27.61	75.93	24.07	74.76	25.24	70.04	29.96	69.40	30.60	69.14	30.86
Food industry	82.25	17.75	84.55	15.45	86.16	13.84	84.74	15.26	82.75	17.25	87.34	12.66	90.25	9.75
Light industry	46.65	53.35	45.51	54.49	66.08	33.92	92.79	7.21	88.65	11.35	96.61	3.39	74.40	25.60
Wood and paper production	90.34	9.66	89.50	10.50	89.58	10.42	86.54	13.46	82.35	17.65	80.09	19.91	82.23	17.77
Production of coke and refined petroleum products	46.28	53.72	51.65	48.35	60.77	39.23	53.43	46.57	55.50	44.50	45.78	54.22	49.31	50.69
Chemicals and pharmaceuticals	38.34	61.66	53.39	46.61	40.39	59.61	41.39	58.61	36.34	63.66	37.38	62.62	40.16	59.84
Production of rubber and plastic products	77.15	22.85	90.09	9.91	92.27	7.73	74.22	25.78	67.27	32.73	66.66	33.34	67.54	32.46
Production of other non-metallic mineral products	94.72	5.28	94.63	5.37	96.67	3.33	94.14	5.86	94.67	5.33	91.39	8.61	92.50	7.50
Metallurgical production	74.28	25.72	65.72	34.28	66.75	33.25	76.02	23.98	62.20	37.80	85.30	14.70	85.28	14.72
Production of finished metal products, except machinery and equipment	71.41	28.59	77.00	23.00	73.40	26.60	85.54	14.46	65.35	34.65	55.46	44.54	64.23	35.77
Production of computers, electronic and optical products	47.27	52.73	43.28	56.72	49.89	50.11	35.37	64.63	41.05	58.95	41.73	58.27	37.87	62.13
Electrical equipment production	67.93	32.07	58.76	41.24	61.89	38.11	55.47	44.53	49.51	50.49	42.98	57.02	58.27	41.73
Production of machinery and equipment not classified in other groups	63.24	36.76	61.51	38.49	85.29	14.71	61.54	38.46	58.99	41.01	46.22	53.78	41.96	58.04
Production of motor vehicles, trailers and semi-trailers	27.26	72.74	41.05	58.95	49.08	50.92	45.70	54.30	37.48	62.52	44.32	55.68	47.13	52.87
Vehicle production	68.63	31.37	70.06	29.94	71.30	28.70	71.80	28.20	71.12	28.88	70.64	29.36	71.98	28.02
Production of furniture, other products; repair and installation of machinery and equipment	52.96	47.04	63.63	36.37	70.20	29.80	90.88	9.12	87.76	12.24	74.58	25.42	66.21	33.79

Legend: GVA – the share of domestic value added in exports; FVA – the share of foreign value added in exports.

Source: calculated by the author according to [2, p. 129–131; 27; 57–63]

Production of chemicals and pharmaceutical products (41.06 %), motor vehicles, trailers and semi-trailers (41.7 %), computers, electronic and optical products (42.4 %) have a low value added value indicator of domestic origin in exports). These types of economic activities are more technologically complex than others, and given the existing potential of domestic enterprises, it can be concluded that so far they cannot produce more technologically complex products with a full production cycle within the country. They can mainly process and process intermediate products of imported origin, require less financial, labor and material resources. This, again, confirms that the industrial production areas of Ukraine, as well as exports, are significantly dependent on imports.

Analysis of the movement of value added in the composition of international trade flows shows that the rapid growth in exports of most developing countries, including Ukraine, is due to their high ability to process and process intermediate components that were imported from partner countries and used for the production of export products. Hence, in order to assess the participation of domestic enterprises in GVC, in addition to determining the potential ability to integrate in IPN, an index of production fragmentation is calculated, thanks to which one can understand by which economic activities national enterprises are more involved in GVC [78, p. 21 – 25].

In world practice, the industries most fragmented, that is, divided into units (the more production units, the longer the chain), include the production of telecommunications equipment and electrical equipment, the automotive industry, metallurgical production, and light industry. The shortest chains are in the extractive industry, which is explained by the lack of the need to separate the production process (Fig. 1.5) [1, 35, pp. 32 – 34; 70, p. 133; 73; 75; 76, p. 335; 83].

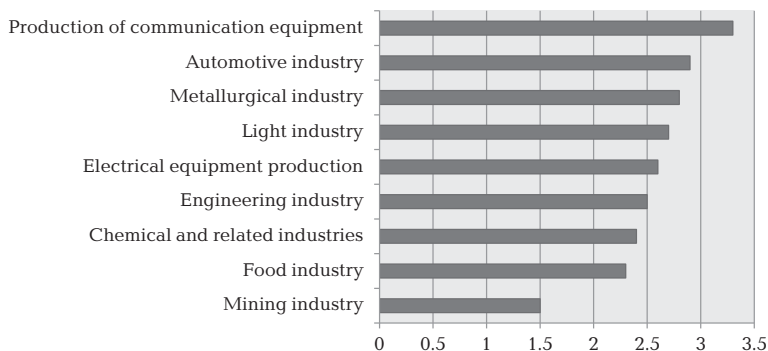


Fig. 1.5 The length of global value chains by industry in the world.

Source: compiled by the author according to [76, p. 335; 83]

The increase in production links and further intense fragmentation leads to an increase in the GVC at a cheaper production process, changes in the structure of the economy (there is a redistribution between sectors of the economy, as well as between sectors and foreign economic activity within sectors), the expansion of production, as a result of which new types of economic activity may arise enterprises or change the structural organization of the whole production system.

In Ukraine, which has competitive advantages and a certain dynamics of development of production factors, the international production fragmentation index (*IFi*) in 2009 – 2015 changed as follows (Table 1.16).

Table 1.16 Index of international fragmentation of production by individual types of economic activity in 2009 – 2015

Type of economic activity	2009	2010	2011	2012	2013	2014	2015
Agriculture	0.06	0.06	0.06	0.09	0.09	0.08	0.06
Mining industry	0.50	0.49	1.00	1.04	0.85	0.73	0.91
Processing industry, including:	0.21	0.23	0.50	0.54	0.56	0.58	0.58
Food production	0.08	0.08	0.16	0.16	0.19	0.18	0.15
Light industry	0.29	0.34	1.05	2.29	2.29	2.15	1.83
Wood and paper production	0.23	0.25	0.41	0.43	0.45	0.45	0.38
Production of coke and refined petroleum products	0.18	0.22	0.65	1.00	1.05	1.70	1.72
Chemicals and pharmaceuticals	0.38	0.36	1.06	1.14	1.36	1.60	1.55
Production of rubber and plastic products	0.80	0.95	1.48	1.55	0.83	0.79	0.75
Production of other non-metallic mineral products	0.14	0.17	0.30	0.22	0.30	0.30	0.27
Metallurgical production	0.09	0.11	0.17	0.11	0.15	0.12	0.11
Production of finished metal products, except machinery and equipment	0.50	0.43	0.67	0.55	0.70	0.99	0.99
Production of computers, electronic and optical products	2.83	1.50	3.30	4.56	4.48	3.84	5.49
Electrical equipment production	0.25	0.34	0.73	0.67	0.86	0.82	0.83
Production of machinery and equipment not classified in other groups	0.29	0.45	1.41	1.40	1.40	1.48	1.76
Production of motor vehicles, trailers and semi-trailers	0.40	0.47	1.21	2.32	3.91	2.62	3.23
Vehicle Production	0.05	0.05	0.19	0.24	0.10	0.23	0.14
Production of furniture, other products; repair and installation of machinery and equipment	0.23	0.23	0.44	0.30	0.33	0.29	0.41

Source: calculated by the author according to [27; 57; 58; 59; 60; 61; 62; 63]

This indicator can be interpreted as follows: a high *IFi* value (assuming $IFi \rightarrow \max$) indicates the dependence of the country's production on

imports (the economic content of the indicator is somewhat similar to the indicator of production dependence on imports) and demonstrates the interest of domestic producers on involvement in the GVC.

So, in 2009 the value of the indicator under consideration in almost all foreign economic activity did not exceed 1. The only exception was the production of computers, electronic and optical products from the *IFi* value of 2.83, which is explained by the high degree of import dependence of the corresponding foreign economic activity. As of the end of 2015, the situation has radically changed: the value of *IFi* has increased significantly in all foreign economic activities, and the most involved in the global reproduction process is the production of computers, electronic and optical products (*IFi*=5.49), the production of motor vehicles, trailers and semi-trailers (*IFi*=3.23), light industry (*IFi*=1.83), production of machinery and equipment not covered by other groups (*IFi*=1.76), production of coke and refined products (*IFi*=1.72), production of chemical products and pharmaceutical products (*IFi*=1.55). This means that in the TEA data, imports even exceed the total output, and the country is involved in the process of international production fragmentation and GVC. Somewhat less is the calculated value of the indicator for the production of finished metal products, except for machinery and equipment (*IFi*=0.99), the mining industry (*IFi*=0.91), electrical equipment production (*IFi*=0.83).

The low value of the international production fragmentation indicator in 2015 has the agricultural sectors (*IFi*=0.06), metallurgical production (*IFi*=0.11), production of other vehicles (*IFi*=0.14), food production (*IFi*=0.15), as well as the production of other non-metallic mineral products (*IFi*=0.27).

In our opinion, this indicator has a number of shortcomings: first, it reflects the interest of domestic producers in using products of imported origin to ensure production, which demonstrates only the dependence of the output of certain TEA on imports; secondly, it does not take into account the factorial advantages available for each TEAs and the potential for integration into the world reproduction process; thirdly, the interpretation of this indicator demonstrates the «one-sided interest» of domestic producers in attracting GVC and does not at all take into account the interest of partner countries in such participation. For example, the high value of *IFi* in the production of computers, electronic and optical products does not take into account the fact that domestic manufacturers can supply competitive products to foreign markets for further development and integration in the production process of the final products in the GVC framework.

Therefore, it is important to assess how interesting the products of domestic enterprises are for foreign partners, that is, to estimate the demand for it on the foreign market in the structure of aggregate demand can be

done by analyzing the volume of new orders. New orders are the cost of all orders taken for the reporting period for the production of industrial products (by own (acquired) or raw materials) and for the performance of industrial services; this is the value of the concluded contracts or agreements in writing (concluded through the exchange of letters, telegrams, telephone messages, via facsimile and electronic communication, or otherwise) [27]. According to the Council Regulation No. 1165/98 dated 19.05.1998, as amended by Regulation No. 158/2005 of the European Parliament and the Council of the European Union, orders may be made for certain types of activities that usually work on order, namely: sections 13 – 14, 17 – 18, 20 – 21, 24 – 30 according to the KVED-2010 [27].

The lack of data for previous years makes it impossible to analyze the dynamics of the volume of orders for production of certain types of activities in more detail. Despite this, Table 1.17 shows that the greatest demand from customers in 2013 – 2016. The products of metallurgical production use the share of which in the total volume of new orders for this period is 64.1 %, including from foreign customers – 36.2 %.

Enterprises belonging to different holding groups and corporations have the largest share in this field of metallurgical production, the logistics and infrastructure of which allows supplying relatively cheap metallurgical products to the external market both for intermediate and final consumption are well developed.

The largest enterprises in this industry are ArcelorMittal OJSC, which is part of ArcelorMittal, the largest metallurgical enterprise in the world, Metinvest Holding LLC, which is a part of the SCM financial and industrial group, and Interpipe Scientific and Industrial Investment Group, which covers a large number of factories for the production of metal pipes, wheelsets for railway transport and other products. The investment presence of foreign investors has allowed to expand the sales markets for products of this industry, as well as to increase the level of its competitiveness in the world, which significantly increased the volume of foreign orders.

Engineering production is in second place with the share of orders in the total volume of new orders at the level of 25.9 % and orders from foreign investors at the level of 14.3 %. The largest share of foreign orders in the region was observed in 2015 – 65.4 %, which was due to a significant increase in the volume of orders in the production of other vehicles and the production of machinery and equipment of other groups. In 2016, the situation changed: the demand for domestic products of the engineering industries from foreign customers decreased and amounted to 46.5 % of the total new orders. The lowest are the shares of new orders in the production of computers, electronic and optical products (0.91 %), electrical equipment (2.56 %), motor vehicles, trailers and semi-trailers (3.10 %).

Table 1.17 Dynamics of the volume of new orders for the production of certain types of economic activity in 2013 – 2016

The volume of new orders for individual TEAs, million UAH							
Year	Indicator	Light industry	Production of paper products, printing	Chemical production	Metallurgical production	Engineering industry	Total
2013	Total new orders, including:	4456.7	17262.4	52933.3	185902.4	95144.9	355699.7
	– foreign orders	1833	4603.4	19486.7	91489.4	49974	167386.5
2014	The share of foreign orders, %	41.13	26.67	36.81	49.21	52.52	47.06
	Total new orders, including:	5843.3	19634.1	52135	199984.6	81489.7	359086.7
2015	– foreign orders	2838.8	5543	14281.7	106720.4	46332.1	175716
	The share of foreign orders, %	48.58	28.23	27.39	53.36	56.86	48.93
2016	Total new orders, including:	9509.4	24747	63038.6	240564.6	92177.6	430037.2
	– foreign orders	4473.2	6821.9	14142.1	134239	60282.5	219958.7
2016	The share of foreign orders, %	47.04	27.57	22.43	55.80	65.40	51.15
	Total new orders, including:	10666	27934.8	76747.7	286066.2	99496.1	500910.8
2016	– foreign orders	5126	8476.3	23718.3	182378.3	46252.3	265951.2
	The share of foreign orders, %	48.06	30.34	30.90	63.75	46.49	53.09
The share of new orders in the gross output of individual TEAs							
2013	Total new orders, including:	35.32	38.45	77.80	79.99	72.08	60.73
	– foreign orders	14.53	10.25	28.64	39.36	37.86	26.13
2014	Total new orders, including:	42.18	37.43	74.01	76.76	72.66	60.61
	– foreign orders	20.49	10.57	20.27	40.96	41.31	26.72
2015	Total new orders, including:	45.11	34.36	64.09	81.54	79.87	60.99
	– foreign orders	21.22	9.47	14.38	45.50	52.23	28.56
Index of new orders for individual TEAs							
2014	Total new orders, including:	1.31	1.14	0.98	1.08	0.86	1.01
	– foreign orders	1.55	1.20	0.73	1.17	0.93	1.05
2015	Total new orders, including:	1.63	1.26	1.21	1.20	1.13	1.04
	– foreign orders	1.58	1.23	0.99	1.26	1.30	1.20
2016	Total new orders, including:	1.12	1.13	1.22	1.19	1.08	1.25
	– foreign orders	1.15	1.24	1.68	1.36	0.77	1.05

Source: compiled by the author according to [27]

At the same time, some enterprises of the automotive industry are already integrated into IPN and act as an active link in global value chains. Thus, according to the site «CarDiagram», the production association «Karpaty», which is located in Ivano-Frankivsk, produces wiring for cars «Porsche», «Mercedes», «Volkswagen», «Skoda». A subsidiary of the international electronics manufacturer TE Connectivity – Taiko Electronics Ukraine Limited also conducts wiring, as well as connectors for BMW, Opel, Mercedes, Skoda and Fiat. Bader Ukraine LLC sews leather covers for premium cars of the Volkswagen group [39]. Other elements, electronics and cables are produced in Kyiv («Kostal-Ukraine») and Zakarpattia («WET Automotive Ukraine», «Tochpribor») regions, as well as in Ternopil and Chernivtsi (Sumitomo Electric Bordnetze Ukraine, SEWS Ukraine) and Lutsk («Kromberg and Schubert Ukraine») [3, p. 109 – 111; 39; 68].

In third place is the production of chemical and pharmaceutical industries. It should be noted that the volume of new orders from foreign investors makes up only a quarter of the total volume of new orders in this area, which is already insignificant compared to other foreign economic activities (the share of new orders in the total volume of orders is 17.2 %, including on the part of foreign customers – 5.03 %). This can be explained by the technological backwardness of national chemical and pharmaceutical enterprises and the too low pace of modernization, which, although some of the industry giants are trying to implement, such as the holding company OSTCHEM, which belongs to Group DF [10, p. 48]. Despite the fact that the volume of foreign direct investment in this industry in the overall structure of FDI is quite significant (15.6 % in 2015), foreign customers prefer world leaders in these areas [17, p. 50; 18, p. 13 – 14; 24, p. 312; 26, p. 52].

The volume of new orders in terms of value embodies the demand for products of industrial production from domestic and foreign consumers. Hence, the analysis of its dynamics and structure makes it possible to make short- and medium-term forecasts regarding the future production and sales of products [43]. Since the received orders affect first the production and then the sales volume, it is important to analyze the ratio of the volume of new orders to the gross output, as well as the index of new orders for individual TEA, which can serve as a predictive indicator characterizing the economic cycle and is inherently proactive indicator in the system of indicators of conjuncture, which includes indices of industrial production, sales and new orders for products [6].

Thus, the highest value of the share of new orders in the gross output in 2013 – 2015. It belongs to the branches of metallurgical production, mechanical engineering and the production of chemical and pharmaceutical products (75.3 %). This means that 75.3 % of the production activities of these industries are aimed at fulfilling domestic and foreign orders. On the one hand, such a situation can be explained by the fact that domestic enterprises are not sufficiently provided with the necessary materials, raw

materials and other components, and the production process is significantly dependent on imported components, on the other hand, industrial production, aimed mainly at fulfilling orders while reducing excess production, which is carried out with the aim of minimizing production costs and risks associated with the possible non-realization of goods produced domestically and foreign market.

At the same time, a positive tendency towards an increase in both the total volume of new orders and new foreign orders in the period 2013 – 2016. So, for light industry, paper production and metallurgical production, the index of new orders from year to year is more than 1, which indicates a dynamic increase in orders, whereas for the production of chemical products and mechanical engineering, the index of new orders fluctuates significantly (both in terms of total orders, and in terms of foreign orders). This situation is explained by the fact that the demand for products of TEA data is changing dynamically and depends on a large number of factors, such as: price and quality of products, conditions and terms of production and supply, the number of existing proposals for the production of necessary products in the world market, political and economic the situation in the country where the production will be carried out and the like. So, in the crisis for Ukraine 2014 in the chemical and engineering industries, the index of new orders was less than 1, which is caused by the aggravation of the situation of uncertainty in the economic and political spheres.

Therefore, it can be concluded that there is an absolute opposite in the interests of domestic enterprises and foreign partners about the nature of the participation of the first in the GVC. So domestic producers prefer to produce more technologically sophisticated products, which has a high added value, and therefore brings high incomes to enterprises and directly to owners. At the same time, as shown by the results of calculations, they can't yet produce such products, focusing on the full production cycle in the country, which is why foreign customers, analyzing the price, quality, speed and other conditions for the production and sale of products, prefer the domestic technologically simple products.

It is important to understand that the nature and direction of participation in GVC is different, depends on who is interested in participation and how it is influenced by the determinants of industrial integration (contribute to or, conversely, have a restrictive effect). Based on this, it is necessary to calculate the indices of direct and reverse participation in the IPN. As for reverse participation, it has already been partially considered using indicators of imported components in exports, international production fragmentation indices and production dependencies, which demonstrated a high share of the import component in exports and gross output of high- and medium-tech industries, is a reflection of the interests of domestic enterprises in production of these industries in the IPN framework, but direct participation is not evaluated.

Therefore, the next logical step is the calculation of the specified indices. Let's begin with the index of direct participation of national companies in the GVC, which shows the share of exports of value added, or more precisely, the direct and indirect (which is personified in the intermediate costs of the cost of exports) of the GVA in total exports to third countries. Calculated data for individual types of economic activity are listed in the Table 1.18.

Table 1.18 Dynamics of the index of direct participation of certain types of economic activity in GVC (*IFPI*) in 2005 – 2015

Type of economic activity	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Agriculture	0.17	0.16	0.23	0.18	0.15	0.09	0.11	0.19	0.20	0.24	0.31
Mining industry	0.29	0.17	0.18	0.22	0.06	0.10	0.22	0.23	0.31	0.31	0.24
Processing industry, including:	0.06	0.06	0.06	0.07	0.05	0.06	0.06	0.06	0.05	0.05	0.05
Food industry	0.15	0.12	0.13	0.15	0.12	0.12	0.12	0.14	0.14	0.16	0.19
Light industry	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.01	0.01
Wood and paper production	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.03
Chemical and related industries	0.04	0.05	0.04	0.04	0.03	0.03	0.03	0.03	0.03	0.02	0.02
Metallurgical production, production of finished metal products	0.19	0.19	0.17	0.19	0.17	0.18	0.17	0.15	0.13	0.15	0.14
Engineering industry	0.03	0.03	0.02	0.05	0.03	0.03	0.04	0.04	0.03	0.02	0.02
Production of furniture, other products; repair and installation of machinery and equipment	0.07	0.06	0.04	0.04	0.04	0.04	0.04	0.09	0.09	0.08	0.07

Source: calculated by the author according to [27; 57; 58; 59; 60; 61; 62; 63]

The value of the index of direct participation in the GVC in 2005 – 2015 is completely insignificant. At the same time, the obtained values on the whole confirm once again that the participation of national enterprises in the IPN is mainly of raw materials orientation, since the highest values of the calculated indicator in 2015 belong to agriculture (0.31), the extractive industries (0.24) and metallurgical production (0.21). Low values of the calculated indicator for the period 2005 – 2015 are characteristic for chemical production, the production of rubber and plastic products, as well as for the engineering industries, means that domestic value added, created within the GVC framework and is included in the composition of final goods sold on the external market, which is very insignificant (for some TEAs, such as computers, electronic and optical products, the share of domestic value added does not exceed 1 %).

The index of reverse participation in the GVC, which demonstrates the share of import value added, containing in the intermediate components of imported origin, in total exports for certain types of economic activity of Ukraine has such a dynamics (Table 1.19).

Table 1.19 Dynamics of the index of reverse participation of certain types of economic activity in GVC (*IBPi*) in 2005–2015

Type of economic activity	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Agriculture	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.03	0.03	0.02
Mining industry	0.15	0.18	0.18	0.21	0.21	0.22	0.50	0.48	0.37	0.24	0.31
Processing industry, including:	0.33	0.25	0.19	0.35	0.27	0.11	0.29	0.44	0.50	0.43	0.46
Food industry	0.02	0.03	0.02	0.02	0.02	0.01	0.02	0.03	0.04	0.03	0.03
Light industry	0.05	0.06	0.06	0.08	0.02	0.02	0.06	0.16	0.17	0.13	0.12
Wood and paper production	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.03	0.02
Chemical and related industries	0.10	0.11	0.09	0.10	0.05	0.05	0.13	0.18	0.20	0.26	0.25
Metallurgical production, production of finished metal products	0.06	0.09	0.10	0.10	0.06	0.06	0.09	0.06	0.09	0.10	0.09
Engineering industry	0.17	0.13	0.13	0.18	0.08	0.06	0.18	0.25	0.30	0.20	0.22
Production of furniture, other products; repair and installation of machinery and equipment	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02

Source: calculated by the author according to [27; 57; 58; 59; 60; 61; 62; 63]

From Table 1.19 it can be seen that the reverse participation of national enterprises in the GVC is more intensive in medium- and high-tech industries. So the highest value of *IBPi* in 2005–2015 has a chemical industry (0.25 in 2015), and if look at the *TEA* that it includes, the production of chemical and pharmaceutical products has the highest indicator (0.7 in 2015). In second place are the types of economic activity, belong to the field of engineering, namely: the production of computers, electronic and optical products (0.34), electrical equipment (0.35), machinery and equipment not related to other groups, as well as the production of motor vehicles means, trailers and semi-trailers (0.2).

The high value of the *IBPi* index for the extractive industries (0.31 in 2015). This is explained by the fact that for the production of products, domestic enterprises use materials and means of production of imported origin that affect the structure and volume of the cost of export.

The data obtained allow to calculate the composite index of participation in GVC, also to quantify which direction of participation for domestic enterprises in GVC is more intensive: direct or inverse. Calculated data are listed in Table 1.20.

Table 1.20 Composite index of participation of certain types of economic activity in GVC in 2005 – 2015

Composite index of participation in GVC						
Type of economic activity	2005	2007	2009	2011	2013	2015
Agriculture	0.19	0.25	0.16	0.12	0.23	0.34
Mining industry	0.43	0.36	0.27	0.72	0.68	0.55
Processing industry, including:	0.39	0.24	0.33	0.35	0.55	0.51
Food industry	0.17	0.15	0.14	0.14	0.18	0.22
Light industry	0.07	0.08	0.03	0.07	0.19	0.13
Wood and paper production	0.04	0.05	0.05	0.05	0.05	0.05
Chemical and related industries	0.14	0.13	0.08	0.16	0.23	0.27
Metallurgical production, production of finished metal products	0.25	0.27	0.23	0.26	0.22	0.23
Engineering industry	0.20	0.15	0.11	0.22	0.33	0.24
Production of furniture, other products; repair and installation of machinery and equipment	0.09	0.05	0.05	0.05	0.11	0.09
Ratio of indices of backward and direct participation in GVC						
Type of economic activity	2005	2007	2009	2011	2013	2015
Agriculture	0.08	0.08	0.09	0.13	0.14	0.07
Mining industry	0.51	1.04	3.66	2.24	1.22	1.30
Processing industry, including:	5.27	3.36	5.07	4.93	9.42	8.89
Food industry	0.16	0.12	0.15	0.19	0.25	0.14
Light industry	2.78	3.33	1.16	3.74	10.37	11.84
Wood and paper production	1.06	0.87	0.57	0.91	1.12	0.69
Chemical and related industries	2.50	2.25	1.67	4.33	6.67	12.50
Metallurgical production, production of finished metal products	0.32	0.59	0.35	0.53	0.69	0.64
Engineering industry	5.67	6.50	2.67	4.50	10.00	11.00
Production of furniture, other products; repair and installation of machinery and equipment	0.29	0.25	0.25	0.25	0.22	0.29

Source: calculated by the author according to [27; 57; 58; 59; 60; 61; 62; 63]

In general, the most integrated in the GVC for the investigated period is the mining industry (the average value of the calculated index for the period was 0.49), agriculture (0.2), metallurgical production (0.25), mechanical engineering (0.2). However, such high values of the calculated indicator are explained by the fact that in some sectors the country actively back

participates in GVC, that is, it is a consumer of intermediate consumption products for manufacturing products to meet final external demand (chemical industry, mechanical engineering. However, as regards direct participation in GVC, it is the highest in the primary sector (extractive industry, metallurgical production, agriculture, etc.). It is necessary to analyze what kinds of economic activities in the downward significant imbalances on the nature of participation in GVC.

Thus, the index of reverse participation in certain types of economic activity in 2005–2015 is higher than the direct participation index several times, and for certain types of economic activity – 70 times (production of computers, electronic and optical products). This means that domestic value added has been created for this TEA is 70 times less than foreign value added, consuming domestic enterprises for production and subsequent export. Other types of economic activity whose reverse participation in GVC is much higher than direct in 2015 include: production of chemicals and pharmaceutical products (32 times), production of motor vehicles, trailers and semi-trailers (38 times), production of electrical equipment (24 times), production of coke and refined products (19 times). Another situation in the low-tech and primary industries. So, in agriculture, food industry, metallurgical production, which direct participation in GVC is more intensive in the opposite direction: the corresponding ratios of participation indices are 0.07, 0.14 and 0.64 in 2015.

Thus, the participation of national enterprises in the GVC is undoubted, as evidenced by the values of the calculated participation indicators. At the same time, the nature, intensity and direction of participation for individual types of economic activity is not the same, due to the effect of production factors and the available potential. Thus, in high-tech industries, backward participation in GVC is more intensive, and production of these industries is mainly aimed at fulfilling new orders from domestic and foreign customers, while low-tech industries are characterized by an intense nature of direct participation, which is due to the existence of significant comparative advantages in these areas in the context of integration into international production networks.

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Chapter 2

Contractual relationship in the conditions of modernization of the international cooperation system

2.1 Formation of contractual relationship as a new form of international cooperation

Scientific discoveries and inventions of the last decade of the 20th century have touched on the backbone elements of international economic relationship. The increased competition in world markets and the limited resource base encourage the search for optimal ways to grow faster on the basis of fundamentally new technologies, identifying long-term trends in the evolution of the world economic system. Taking into account the predictions regarding the potential achievements of scientific and technological progress, it can be assumed that at the present time prerequisites are being formed for a fundamental change in production methods and, as a result, for the transformation of factor economic systems.

In parallel with the integration of economic activities on a global scale, in the near future, specialization processes associated with the acquisition by each individual community of a new role in the international division of labor will become particularly relevant.

Given the changes occurring in the global economy, the international division of labor should not be considered solely as a characteristic of the distribution of production. In modern conditions, the integration processes in international economic relationship determine the need for analysis, which includes the study of the flow of capital, goods, and labor; changes in ownership structures; directions of scientific research and information transfer and other factors.

The introduction of technological solutions of the new generation creates opportunities for changing production methods and, as a result, the totality of production factors. Combinations of classical factors of production (labor, land, capital) are undergoing significant changes, and the main component of the development of economic systems will be the ability to develop and implement in a short time production models and technologies of new ways.

Processes dynamically develop at the present stage of historical development, they require an analysis of the multifaceted aspects of the interaction of a complex system with many interrelated components. Over the past three hundred years, the experience of scientific and technical achievements has allowed to expand the allowable limits of economic growth. At the same time, the basis of production processes shifted from natural wealth (in particular, land and relatively unskilled labor) to tangible assets created by man (buildings and structures), and then to intangible assets (knowledge and information).

According to estimates by the US Bureau of Statistics, in 1950, 80 % of the value added in US industrial sectors were primary or processed materials, or raw materials, and only 20 % of the value added was knowledge. By 2015, the proportions have changed significantly and are 25 % and 75 %, respectively. The book value of tangible assets currently serves as an ever-decreasing component of the market value of companies — for most companies, the ratio of intellectual capital to physical and financial capital ranges from 5:1 to 16:1 [1]

According to Paul Krugman, a professor at the Massachusetts Institute of Technology, technologies currently act as the most mobile production factor, which, under the conditions of forming a flexible supranational network of production clusters, determines the development of the international division of labor, does not depend on conventional administrative boundaries. This provision is considered on the basis of the constructed model of specialization and trade in the «boundless» world, where the parameters of economic regions act as objects of study, rather than fixed territories [2].

These and other factors directly affect the transformation of international cooperation ties and lead to the modernization of the system of international cooperation. In order to effectively analyze the phenomenon of international cooperation, it is necessary, first of all, to determine its place in the processes of the development of the world economy and consider, along with such concepts as internationalization, transnationalization, the international division of labor and international specialization.

One of the most important characteristics of the world economy is the internationalization of economic life. The internationalization of economic activity is the strengthening of the interconnection and interdependence of the economies of individual countries; the impact of international economic relationship on national economies; participation of countries in the world economy [3]. In other words, it is the process of overcoming national spatial barriers, developing sustainable links between countries and expanding production beyond national economies. In its development, the internationalization of the economy went through several stages. At first it was an international economic cooperation affecting the sphere of international trade (the end of the XVIII — the end of the XIX century).

At the beginning of the XX century, international capital movement increased, reproduction processes went beyond the framework of individual

states, and transnational corporations (TNCs) began to act as full subjects of international economic relationship. From this period, one can speak of the transnationalization process of economic life, by which is meant a higher level of internationalization of production and capital, including the development within the framework of TNCs of the international production of those types of products that take part in international internal company cooperation.

The objective basis of the processes of internationalization, transnationalization and integration of the world economy is the international division of labor (IDL). Being a function of the development of productive forces and production relationship, IDL creates objective conditions for the growing interdependence of the reproduction processes of all countries and makes it possible to expand the boundaries of internationalization.

At present, it is customary to understand the quantitative and qualitative correlation of labor between countries, regions, industries, groups of industries, enterprises, individual technological operations, mediated by the exchange between them [4]. The essence of the processes of international division of labor is the specialization of countries in the production of those goods in the production of which they have certain advantages, and involves further international exchange and cooperation between countries.

At the end of the 20th century, F. Froebel introduced the term «new international division of labor», focusing not on the level of countries, but on the level of companies, on the features of the global TNC production strategy. In the era of globalization, there is a complication of the production interrelations of TNCs and their development strategies begin to be carried out within the framework of network forms of interaction; they actively form new centers of localization of their own production, expanding the area of distribution of production capacities in new foreign markets.

Strengthening the position of TNCs in the global markets for goods and services has opened up a new spectrum of research for scientists on the problems of international cooperation and contractual relationship. Studying the process of transformation of the organizational and legal forms of such corporations in the last quarter of the twentieth century – the first decade of the twenty-first century has generated a significant number of theories describing the features and specifics of the modernization of international business; created the opportunity to redefine the concept of the system of international cooperation in general, and the place of contractual relationship in this system, in particular.

New formats of cross-border relationship are increasingly acquiring signs of a sustainable nature, are distinguished by a certain hierarchy and focus, which allows them to be identified as a system of international cooperation. Given the transformations that occur in international business, it will be logical for TNCs to recognize not just a company with many branches abroad, but a full-fledged economy has a significant impact on the development of economic relationship of the world economy. The vector of research

of the system of international cooperation is shifting precisely to the plane of TNC activity, and the concept of value-added cooperation is closely intertwined with «global production networks» (GPN). Such an assertion is reflected in the works of R. Kashbrasiev, who reveals this aspect of the GPN as a modern form of international cooperation based on competition [5].

Global production networks in terms of cooperation issues are sequential chains or complex networks that have been formed due to the fragmentation of production processes and distribution of production operations (and/or business functions) between different countries, both on the basis of direct ownership and in the form of contractual relationship.

As the practice of leading TNCs shows, they coordinate GPN through complex networks of interaction between suppliers and various management regimes: from direct ownership of foreign assets to contractual relationship (CR) (in the case of methods of organizing international production not related to participation in capital) and ordinary trade. These management regimes and hierarchical structures in GPN, through which they manifest, significantly affect the distribution of economic benefits and long-term incentives for development [6]. The decision of TNCs on where to invest and with whom to maintain a partnership, based on the factors of the placement of the GPN, depending on the segment, goals or the specifics of the TNCs activities.

Until recently, TNCs mainly built their international production networks through direct investment (DI), creating an international system of affiliated companies in host countries, owned and operated by the parent company. Over time, TNCs are exploring the activities within their global production systems, building interconnected networks that include both affiliated companies and independent firms from host and home countries [7]. Depending on their long-term goals, strategy, industry in which the specific characteristics of a particular market operate, TNCs more and more control and coordinate the activities of independent or rather weakly connected partner firms, through various mechanisms. These mechanisms or levels of control vary from their share in assets, joint ventures, contractual relationship to control, based on market power, which are based on technology, market access and standards. These mechanisms are not mutually exclusive and they can complement or replace direct investment [8].

Building and developing its GPN, TNC, like most companies that decide on internalization or externalization, this choice is similar to the choice between production and procurement [6]. It is the consequences of this decision that give rise to another feature of the activities of TNCs – coordination and control of activities within the GPN. Internalization, which provides for a cross-border aspect, is manifested in direct investment, where the flow of goods, services, information and other assets is carried out within the company under its full control [9]. Externalization manifests itself through trade, while TNCs do not have full control over the counterparty, and through contractual relationship in which all the conditions of cooperation

are determined on a contractual basis [10]. CRs and DIs can complement each other or substitute, depending on costs, benefits, and associated risks.

The internalization of cross-border activities, among other things, brings costs associated with the current complex, multi-robust, and multi-currency operations, which grow with the increasing social, cultural and political differences between locations. It also implies the full acceptance of the risks associated with this activity, including capital insecurity and the uncertainty of future periods. The key to activity is that the technical and technological capacities, skills and know-how necessary to conduct activities either already exist within the company, or are fairly inexpensive, and their acquisition does not require much time [9].

In contrast to the high costs of internalization, it also provides a number of advantages. First, it is about the possibility of full control over the activities of all parts of the production network. TNCs, through their own divisions, close on themselves the creation of added value, while at externalization it is necessary to take into account the fact that part of the profits will settle on separate links of the global network [11]. Secondly, internalization makes it possible to avoid transaction costs when finding the right partner and establishing contractual relationship, is becoming more and more complex. At the same time, their complexity directly depends on the risks associated with limited control over the individual links of the production system, assets and intellectual property [6]. Thirdly, finally, internalization contributes to the reduction of expenses on managerial relationship with partners in the field of CR in the long term, on the flow of knowledge, goods and services, communication and information flows, as well as on monitoring and controlling compliance with contractual obligations.

Despite the indicated strengths of internalization, externalization is characterized, in turn, by compelling, inherent advantages and opportunities. Defining are: the distribution of costs and risks with a third party, access to assets and resources of a third party [12]. These can be as so-called «hard» assets, in particular, such as production lines and equipment, access to cheap resources, technological capacity, know-how or, no less important, «soft» assets, namely: networks and communication in the host countries. As a result, externalization allows TNCs to more effectively organize the internal division of labor, free up scarce resources and direct them to another segment of their network, and then allows them to focus on their main activities [13].

TNCs manage GPN through a complex network of supplier relationship and various forms of administration. Now TNCs are increasingly crushing their activities within the production network, placing individual processes in the most favorable locations, both in the home region and abroad. This course of events is most common for companies with a highly-fragmented organizational structure or configuration of global production networks. It may include multiple operations and tasks; numerous affiliates, contract and trading partners; in pure form or a combination of these forms.

The managerial component also concerns the geography of distribution of operations, spheres of production and forms of cooperation.

In such global production networks, TNCs should manage a fragmented, geographically dispersed production process and trade and investment flows, while at the same time ensuring that these actions are fully consistent with the company's strategic goals [14].

Decision making in favor of direct investment, contractual relationship or trade (or a combination of them), as the main form of management of its global production network, is based on factors such as transaction costs, closeness of relationship and risks inherent in externalization. Scientists, drawing on the analysis of the global value chain as an organizing conceptual framework, draw conclusions that the complexity of this knowledge, and the possibility of their easy codification for transmission, as well as the power of suppliers or partner companies, are influenced by the specific form of interaction chosen for managing global production network [15]. In turn, such features require TNCs to develop and use their capabilities in accordance with the chosen form of cooperation: direct investment, contractual relationship, trade.

Focusing on direct investment, it should be emphasized the crucial importance of effective coordination and integration of the activities of branches of TNCs. In global production networks where knowledge flows are complex, not codified, or the capacity of partner firms or trade suppliers is low, internalization should be given preference [15]. In this case, the activity is complicated and requires the involvement of significant financial resources. TNCs should develop integrated infrastructure with strategic support to manage their operations, including such functional departments as human resources management, accounting and operational management. In the scientific specialized literature, this form of management is defined as a hierarchy and is used in cross-border vertical integration in many sectors of the value chain [10].

Under normal trading, TNCs must sell (buy) a product or service in a company that is in no way dependent on it. This form of interaction is most advisable when trading standardized products, when it is possible to exchange information about goods or services (prices, quality, specifications) between the seller and the buyer in the simplest way. This form of interaction is the basis of some TNCs, it does not require complex management mechanisms, only the purchase of goods or services and the processing of complaints and proposals.

TNCs apply contractual relationship when the complexity of the relationship between the seller and the buyer leads to an increase in coordination costs and transactional interdependence [14]. At the present stage of the use of contractual relationship in the construction of global production networks is quite common, but the mechanisms for their coordination are different.

When organizing global production networks, TNCs should make decisions not only on location, but also on the model of management and coordination of activities. In the classical economic model, which describes

the process of deciding the «ownership-location-internalization» (OLI) [10], the model is chosen among DI, trade or licensing. Contractual relationship in this sense is the evolutionary form of the outlined model: they allow TNCs to be partly involved in the management of GPN by externalizing activities, while maintaining an appropriate level of control (Table 2.1).

Table 2.1 Modified OLI decision model

Control type	Projection on the international operating models	OLI-model		
		Property advantages	Local advantages	Advantages of internationalization
Property control	DI, capital investment in the host country	V	V	V
Contract levers of control	The behavior of the host company is governed by contractual arrangements	V	V	–
Control based on market power	The host company depends on access to the strategic assets of TNCs, and its behavior is subject to conditions prevailing in the TNC network	V	V	–
Lack of control	Trade	V	–	–

Source: [14]

Thus, the choice is no longer between control through investment and the lack of control as such (when trading), but between the variation of forms in which control is exercised in different configurations and in varying degrees. Contractual relationship can be considered as an alternative form of managing global production networks. Thus, by contractual relationship, we understand this type of contractual relationship (subordinate industrial production, outsourcing services, franchising, licensing, etc.), through which international companies, and above all TNCs, coordinate their activities within their global value chains and affect the management of the host companies, not participating in their capital. Unlike conventional trading, TNCs within a contractual relationship can influence the business of a partner company, for example, demanding re-equipment of production, change processes, implement or master new procedures, improve working conditions, use certain suppliers, and so on. Thus, the defining characteristic of cross-border contractual relationship as a form of managing the global production system of TNCs is exercising control over the business processes of the host company by methods other than investing in assets [16].

Contractual relationship is not specific to any particular part of the global system or activity. TNCs are generally ready to externalize any operations that are not the main competitive advantage in their market and

therefore can be carried out at lower costs or with greater efficiency by the other party, where risks may be limited or concentrated [9].

Another aspect in the disclosure of the nature of contractual relationship in the system of international cooperation can be provided by the provisions of the concept of key competencies (1957), presented in the book by F. Selznick «Leadership in Administration» [17]. Subsequently, the concept was developed within the resource theory of competitiveness, and received wide recognition after the publication of Key Corporate Competences by K. K. Prahalad and G. Hamel in 1990 [18].

So, this concept defines the key competence of the enterprise (KCE) as the unique and difficult to reproduce knowledge, skills, technologies, know-how, etc. are formed on the basis of the company's operating experience, provide the company with sustainable and long-term competitive advantages by creating additional consumer value of the product (or services) and increase the protective barriers in the existing market [19].

The firm's core competencies can provide: access to a wide range of markets; uniqueness; creation of additional use value of the product; complexity; wear resistance and durability; uniqueness; indispensability; customer focus; ensure a synergistic effect; problems with identification [20].

The role of key competencies is that they allow efficient use of enterprise resources, focusing on the activities that an enterprise performs best, which creates a certain barrier to entry for competitors and allows the company to make the most of the market potential [21]. The core competencies of a firm can be: individuals who possess unique abilities, knowledge, or experience; assets, tangible and intangible; as well as business functions, processes, methods and methods of carrying out activities, etc.

According to this concept, companies have a high level of competitiveness with an unmistakable distribution of key competencies among participants in the production process, which becomes possible, in our case, due to the correct choice of forms and types of international cooperation. Deciding to use CR in building production networks using the methods of the theory of internalization, transaction costs, etc., is not a sufficient condition for successful business. The company, first of all, must be aware of exactly what key competencies it possesses and in no case can entrust them to the wrong hands (in the CR), to maintain a competitive position in the market, and which it can outsource. A paradoxical phenomenon, it follows from this concept, is that the key competence of a company (TNC) may be the system of using contractual relationship. That is, the decomposition of business functions through the CR use can provide a company with a high competitive position both in the domestic and foreign markets. This concept takes research to a new level of study of the CR phenomenon, allows to analyze the CR theory in an applied aspect.

The final configuration of ownership and control of the GPN market is the result of a set of strategic decisions by TNCs. The type of non-standard

modes that are available or suitable for GPN depends on the segment of the value chain, which idea was proposed by M. Porter in the book «Competitive Advantage» [22]. Fig. 2.1 shows that contractual relationship is not specific to any particular part of the global value added system or activity. TNCs are generally ready to externalize any operations that are not the main competitive advantage in their market and therefore can be carried out at lower costs or with greater efficiency by the other party, where risks may be limited or concentrated [23]. Activities requiring specific knowledge or high added value are not excluded. Despite the fact that certain patterns of CR activity have arisen in various industries, it is important to consider the propensity of any segment of the value chain to externalize as completely industry-specific or a separate TNC.

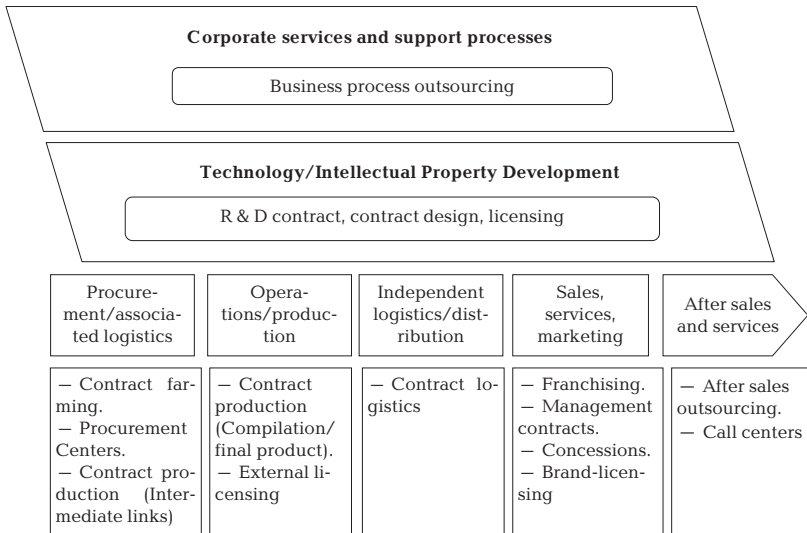


Fig. 2.1 Application of contractual relationship in the value chain (based on Porter's classic model). *Source: compiled by the author based on [22; 23]*

At some stages of creating added value, CRs and FDIs can be replaced, while at other stages they can complement each other. Substitution is justified where TNCs can choose between different forms and find a compromise between cost and income [24]. For example, the choice between building a production line and supplying goods to foreign markets, or licensing its technology and selling it to a local manufacturer. A substitution may occur when the structure of an industry justifies the outcome of a compromise.

Complementarity is a characteristic of the international production system, which is coordinated by TNCs and contains a network of affiliated

companies and partners in contractual relationship; both forms of operating activity are an integral part of the global value added chain [14]. Moreover, the complementarity can exist at the same stage of the value chain, where, for example, franchising store coexists with the store of the direct owner or where the subsidiary is based for the purpose of concluding and managing contractual relationship. The relationship between direct investment control and contractual relationship is dynamic. Companies involved in contractual relationship evolve over time, and thus, in some industries, CR companies are transformed into large TNCs.

Decision making in favor of direct investment, contractual relationship or trade (or a combination of them) as the main form of management of its global production network is based, among other things, on such factors as transaction costs. A big step forward in studying the nature of the company as a participant in market relationship is associated with the emergence of the neo-institutional direction of modern economic thought, which originated in the first half and was formed in the 60 – 70sf of last century. Works of R. Coase, O. Williamson, D. North [25; 26; 27] provided a fundamental basis for the scientific study of many economic processes. According to the institutional concept, the firm and the market are considered as alternative, mutually exclusive ways of organizing economic activity. The company is opposed to the market as a system of internal production external.

Our use of the R. Coase theorem as an analytical tool is important, given the understanding of both the nature of contractual relationship and the reasons for the coexistence of multi-format mechanisms for the expansion of TNCs to foreign markets. In this sense, the basic methodological principles of the theory are important:

- 1) the fundamental principle of limited resources is preserved, providing for the possibility of choice;
- 2) there is a limited rationality of behavior of economic subjects, allows for the emergence of opportunism;
- 3) market transactions are not free, there are transaction costs that give an entrepreneur the choice between a market transaction, a transaction protected by a contractual agreement, and a transaction that becomes part of the corporate hierarchy [25].

Contract relationship in this sense fall under the category of transactions protected by a contractual agreement, that is, is an intermediate option between the market and TNCs, when not one of the options does not satisfy the optimal conditions for the costs of doing business (Table 2.2).

TNC is a coalition of conscious and concerted actions of economic agents, while the market is the result of spontaneous economic development. TNC combines economic resources for a long time. The process of attracting resources, carried out on a contractual basis is impossible without the conclusion of long-term contracts with their owners. On the contrary, market relationship is often based on short-term or one-time transactions.

Table 2.2 Types of economic organizations according to the theory of transaction costs

	Market transaction	Contractual relationship	Corporate hierarchy
Costs	Equal to 0, market transactions are free	<ul style="list-style-type: none"> – Costs for information retrieval; – costs associated with the conclusion of the contract; – costs of monitoring the implementation of the contract; – costs of legal protection of the contract 	<ul style="list-style-type: none"> – Additional costs for internal management; – additional costs of coordination arising from the inclusion of this transaction in the corporate hierarchy
Re-sults	<p>1. Positive (determining the price behind the manufacturer's back, but the firm correctly «guesses» and makes a profit, the result is more costly).</p> <p>2. Negative (the company makes mistakes and suffers losses, the result is less than the cost)</p>	The security of the transaction is growing (legal guarantees of price, quantities of products sold). However, there are no full guarantees, as there is a possibility of unilateral termination of the contract by the transaction partner	Full guarantee of the transaction, which becomes part of the internal structure of the company now

Source: compiled by the author based on [25–27]

According to the theory of transaction costs, the main criterion for choosing between direct investment of TNCs or contractual relationship is precisely the value of transaction costs, which, in our case, is related to the process of searching for information and counterparties, concluding an agreement, monitoring performance and quality, prolongation or termination of the contract. In the case that such costs are greater than or equal to the DI costs, then the corporation decides on the account of the second option, and vice versa.

The development of globalization and the increasing openness of economies contribute to the strengthening of two processes: on the one hand, standardization and unification of business, which makes it possible to transfer functions and business processes to external parties with the possibility of obtaining a standardized product; on the other hand, cooperation, in turn, forms the objective basis and prerequisites for the development of contractual relationship.

Summarizing, it is possible to single out five main reasons of the emergence and development of contractual relationship, which are presented:

Reason 1. The globalization of the world economy is characterized by the growing interaction between its subjects, which is intensified by interstate movement of production factors in the context of the liberalization

of the world economy; increasing the stability of the global monetary and financial system.

Reason 2. The information revolution, which is characterized by a revolution in telecommunications and the further development of information and communication technologies (ICT); informatization of all spheres of activity of organizations, growth in the volume of information services in all spheres of the economy. The above processes:

a) on the one hand, they make it possible to carry out constant contact between the customer and the supplier, it allows to adapt and modify the interaction in a timely manner in accordance with the existing need;

b) on the other hand, they make it necessary to use the services of external specialized companies in connection with the complication of the development and maintenance processes of applications with a constant increase in the volume and speed of processing business information.

Reason 3. The growth of the scale of activities and the strengthening of the role of transnational corporations (TNCs) and banks, which are able to make greater use of the advantages of the international division of labor (IDL) and international production cooperation while expanding specialization.

Reason 4. Search for new ways to optimize the activities of companies in international competition, gain additional competitive advantages in the new IDL.

Reason 5. The development of specialization of production and cooperation, as well as the transition from the traditional division of labor as a historically established specialization of different countries and regions in the new and the latest IDL. It is implemented through a network of cooperation relationship that is part of global enterprise value chains not only in developed countries, but also in a number of developing countries with new functions for them in the production process.

2.2 Species structure of contractual relationship in the international cooperation system

To disclose the types of contractual relationship in the system of international cooperation, let's consider it appropriate to proceed from the following methodological provisions:

- firstly, the species variability of international contractual relationship is directly related to the deepening of IDL, qualitative changes in the organization of production and sales cooperation processes, intensification of internationalization, transnationalization, integration and globalization of world economic relationship [28];
- secondly, the classification of types of international contractual relationship is impossible without the use of various criteria given the multidimensionality of their manifestation and continuous modernization.

Taking into account these postulates, it is advisable to pay attention to those substantive characteristics of international cooperation in modern conditions that will allow more clearly to identify the place of certain types of contractual relationship in the system of international cooperation across the whole range of international contractual relationship.

First of all, let's focus on the fact that with the intensification of globalization processes and the development of productive forces, new opportunities are emerging for obtaining a synergistic effect from cooperation. As the international division of labor deepens, the modern model of international cooperation is being implemented, interpreted as international economic relationship regarding the implementation of the country's specialization products and the import of products that are not produced in the country or imports/co-production if its production is too expensive [5].

International cooperation, from a practical and theoretical point of view, includes a large list of its inherent characteristics, namely:

- preliminary agreement by the parties in a contractual manner on the conditions of joint activities;
- presence of direct subjects of cooperation of various countries;
- coordination of the economic activities of partner enterprises from different countries in a specific, mutually agreed field of activity is the main method of cooperation;
- consolidation of the main objects of cooperation in a contractual manner – finished products, components, semi-finished products, technology, etc.;
- distribution among partners of tasks in the framework of an agreed program, securing production specialization for them, taking into account the main objectives of the cooperation agreement;
- implementation of mutual or unilateral deliveries of goods according to an agreed schedule for the implementation of production programs within the framework of a cooperation agreement, and not as a result of the implementation of ordinary sales contracts;
- competitiveness and stability of relationship increase their interest in this kind of connections and leads to the establishment of established industrial and technological relationship between copartners, close interaction and interdependence [34].

Despite the fact that the theoretical issues of international cooperation are widely discussed in the economic literature, due to the variety of forms and types of international cooperation in recent years there has not been a single approach to determining its content and there is a considerable variation in its types.

The presence of a significant number of contexts in the interpretation of the category of «international cooperation» and the lack of unity on its exclusive definition confirms our view that international cooperation should be viewed as a three-level model. First, at the micro level, when individual

economic subjects enter into direct economic relationship, develop cooperation processes. Secondly, at the meso-level, when enterprises voluntarily transfer a number of economic functions to regions that participate in cross-border and cross-border economic relationship. Third, on macroeconomic level, when the purposeful activity of the state contributes to the economic cooperation of countries, ensures the functioning of the institutional mechanisms for the IC implementation.

However, international cooperation does not close at these levels and includes many more elements, and characterizes it as a system. After analyzing a large number of scientific sources devoted to the problems of international cooperation [33; 29; 30; 32; 31], let's conclude that the concept of «international cooperation» and «system of international cooperation» is almost always identified by scientists.

However, in our opinion, the international cooperation system (ICS) is a broader concept that should be interpreted as follows: it is the unity of the elements of the system based on the international division of labor and ordered by structural levels, where economic entities of different state belonging to certain objects operate; the holistic nature and functioning of the system is determined by the objective laws of the development of society, where business entities are connected with each other by characteristic connections based on the uneven distribution of production factors, international cooperation and specialization (Fig. 2.2).

The essence (the true meaning of the object) and the existence (external forms of the existence of the object) [35] is in a dialectical relationship. The IC essence is manifested in various forms, however, due to their differences, there is a certain independence of forms. Therefore, one of the important issues of the methodology of studying IC is the selection of the main forms that fully reflect the «true meaning of the subject».

The classification of the forms and types of international cooperation largely depends on the methodological principles underlying it. It should be noted that in the economic literature there is no unity on this issue. This is due, firstly, to a different interpretation of the essence of international cooperation, and, secondly, to the fact that different criteria can be used as a basis for classification. The number of methods, especially the forms and types of international cooperation, is very large and continues to grow as the boundaries of scientific, technical and industrial ties expand in the modern world. Moreover, the existing methods of form and types of international production and sales cooperation are increasingly intertwined with each other, creating difficulties with their isolation in pure form [36].

The classification of cooperative agreements should be based on the criteria that most fully reflect the characteristic features of a particular category of such agreements. The theory and practice of cooperation activities at any level distinguish between the object of cooperation or the area of industrial and economic activity in which they are carried out, cooperation

method, i. e. organizational forms and means, as well as the regulatory apparatus, by which the accomplishment of certain jointly set goals is achieved. Thus, as a certain system of relationship, cooperation must be classified on the basis of taking into account two main factors – the field and the method of cooperation (Fig. 2.3) [37].

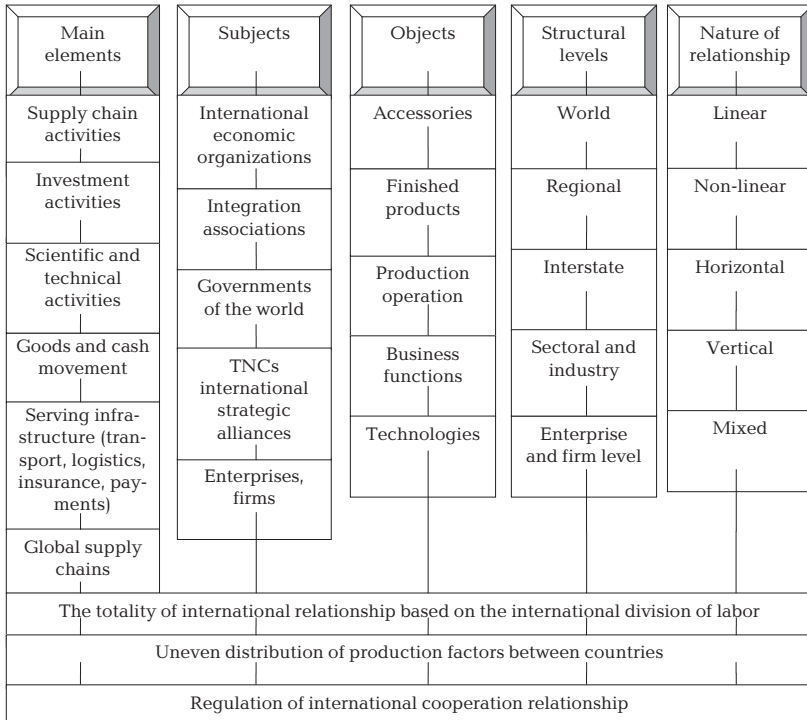


Fig. 2.2 Architectonics of the international cooperation system.

Source: compiled by the author

Using this methodological approach to the problem of classification of international cooperation, it is worth highlighting its enlarged objects, these include: activities in the field of scientific and technical preparation of production (development and creation of new types of products, improvement of existing products, use of new technological processes of production); activities in the field of material and technical preparation of production (design, engineering, construction); activities for commercial preparation of production (procurement of materials, semi-finished products, components); production activity itself; and finally, post-sales activities related to sales and after-sales services.

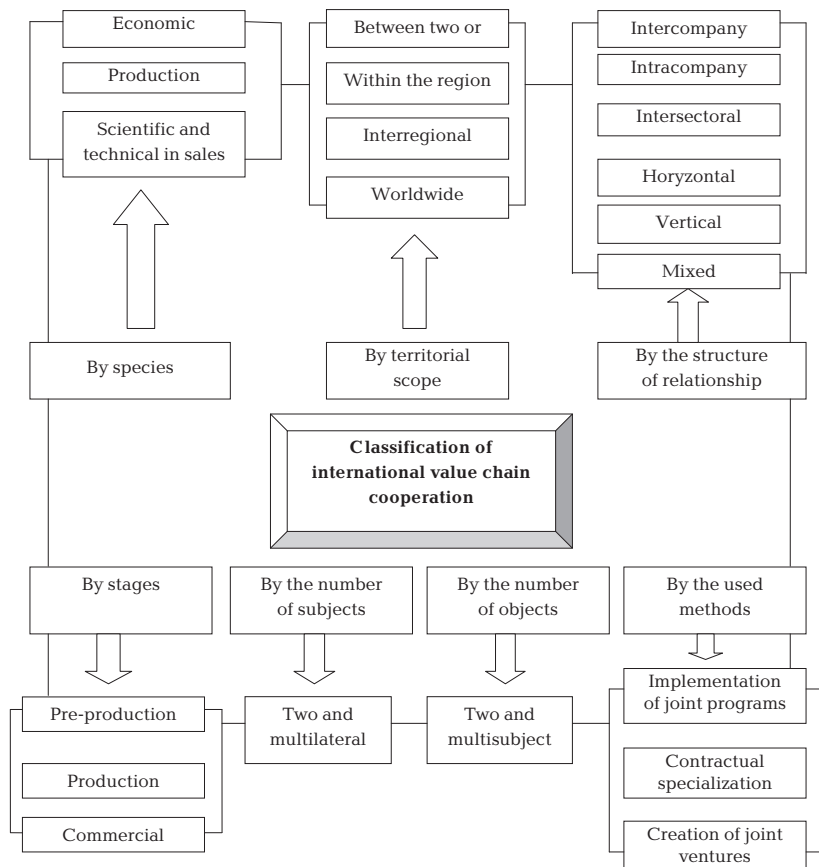


Fig. 2.3 Classification of types of international production and sales cooperation.
Source: compiled by the author

The degree of detail of the structure of cooperation relationship can also be very different. It is possible to explore international cooperative relationship of a global nature or their manifestations in the intra-industry and inter-industry cross-sections. Relationship can be considered on the basis of, for example, such features as cooperative ties of multi-branch complexes, individual industries and industries, industrial enterprises, individual production enterprises. There are other approaches to the analysis, which may, for example, reveal the territorial hierarchy of relationship [38].

We share the approaches of representatives of German economic thought about the desirability of differentiating forms of cooperation –

cooperation without participation in capital and cooperation with participation in capital (G. P. Vidal, A. Shverk, etc.). The latter includes the creation of joint ventures, mergers and acquisitions, etc. A number of studies substantiate the nature of joint ventures as one of the forms of cooperation (E. F. Zhukov, J.-L. Mucchielli, I. Spiridonov, S. Hollensen and others) [39].

Some international organizations also include a joint venture in the form of international cooperation, but separate it from the contractual relationship. The classification of IC forms made by experts of international organizations, in particular UNCTAD – the United Nations Conference on Trade and Development, UNIDO – United Nations Industrial Development Organization and UNECE (European Economic UN Commission) are presented in Fig. 2.4 [40].

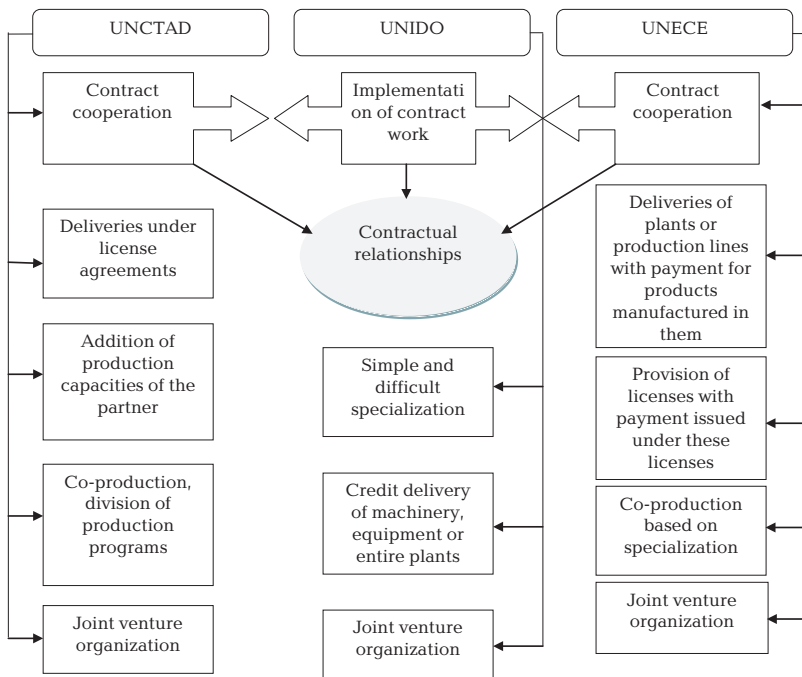


Fig. 2.4 Classification of international cooperation forms.

Source: compiled by the author according to [41–43]

Contract relationship in accordance with their complexity are not easily amenable to a clear classification, but still there is the most common classification that separates contract relationship by the type of interaction between partners. According to this classification basis, contractual relationship are divided into: subordinate industrial production, offshore

outsourcing, subordinated agricultural production (contract farming), franchising, licensing, contract management and other types of contractual relationship [14; 38]. Let's reveal the essence of contractual relationship and describe their advantages and disadvantages by the type of interaction between partners (Table 2.3).

The forms of international industrial cooperation include such operations as licensing and franchising. Let's single out the conditions under which these forms are cooperative.

A license agreement is a permit for individuals or legal entities (licensors) to transfer their rights to use the invention, industrial design, to other natural persons or legal entities (licensees) [46]. To a large extent, this form belongs to the sphere of foreign trade and a license agreement can be considered as a form of cooperation only if two conditions are met:

- a) payment by the licensee to the licensor of products manufactured under license is carried out according to the compensation principle, that is, products manufactured under license (in this case, the transaction may be based on the principles of cross-licensing, provides for the mutual exchange of knowledge and patents, in which monetary calculations may not be made);
- b) there is an agreement between the licensor and the licensee to jointly further refine and improve the licensed object with the help of their technical equipment and funding.

Franchising is the most developed form of licensing – the seller of the license transfers to the buyer his trademark and production/marketing technologies, receiving for this the contractual amount of money (compensation) [45]. There are two main types of franchising:

- Franchising of a product and brand name (commodity franchise) is a distribution system in which suppliers enter into contracts with dealers to buy or sell products or product lines. Dealers use the brand name, trademark and product line of the supplier.
- Franchising of a business package (business format, business franchise) is a market penetration strategy, which involves the emergence of a relationship between an external (franchisor) and an internal entity, in which the former, according to the contract, conveys the latter, a business package of services developed by it and its property. The package transmitted by the franchisor contains most of the elements necessary for a local enterprise to establish and successfully develop business in the local market, while the franchisor is left with regulatory and controlling functions. The package may include production, know-how, training, trademark/brand names, copyright, projects, patents, trade secrets, territorial exclusivity, etc. In addition to this package, the franchisor also usually provides the local enterprise with managerial support in setting up and developing activities in the local market [46]. It is the franchise of a business package that belongs to the cooperative form, since in this case, repeated connections are established between firms.

Table 2.3 Advantages and disadvantages of contractual relationship by type of interaction between partners

Type of contractual relationship	Essence	Main advantages	Main disadvantages
1	2	3	4
Licensing	<p>Contractual relationship under which an international company (licensor) grants the right of a company from the host country to use intellectual property (copyright, trademarks, patents, industrial development rights, trade secrets) in exchange for a payment (royalty). Licensing can take many forms, including brand licensing, product and process licensing</p> <p>The contractual relationship according to which an international firm grants permission to the company from the host country to conduct business, the basis of which is the system developed by the franchiser in exchange for payments or mark-up on goods and services, is supplied by the franchisor. A franchise has a structure in which the main franchisor belongs, which manages all franchises and a large number of small entrepreneurs, own and operate one or more franchises separately</p>	<p>Low financial risk.</p> <p>In order to avoid tariff, non-tariff restrictions, restrictions on foreign investments.</p> <p>Access to local market information from licensee</p> <p>Low costs level</p> <p>Low financial risk.</p> <p>In order to avoid tariff, non-tariff restrictions, restrictions on foreign investments.</p> <p>Tight control versus licensing.</p> <p>Access to local market information from franchisees.</p> <p>Low costs level</p>	<p>Profit limit.</p> <p>Licensor dependency.</p> <p>Potential conflicts with the licensee.</p> <p>High competition</p> <p>Profit limit.</p> <p>Dependence on franchisee.</p> <p>Potential conflicts with franchisees.</p> <p>High competition</p>
Franchising	<p>The contractual relationship according to which an international firm grants permission to the company from the host country to conduct business, the basis of which is the system developed by the franchiser in exchange for payments or mark-up on goods and services, is supplied by the franchisor. A franchise has a structure in which the main franchisor belongs, which manages all franchises and a large number of small entrepreneurs, own and operate one or more franchises separately</p> <p>CR, according to which an international firm delegates the production process (or part thereof), which is an integral part of its GPN company with the host country. Otherwise, contract production is called outsourcing</p>	<p>Low level of financial and management risks.</p> <p>Minimum attraction of resources for production.</p> <p>The allocation of company resources to other activities in the value chain.</p> <p>Easier exit process</p>	<p>Limited control.</p> <p>Restrictions on opportunities to gain experience.</p> <p>Potential problems in the field of public relationship (the possibility of the need to check the working conditions, etc.).</p> <p>Differences in quality standards</p>
Contract production (subcontracting, subordinate production)			

Continuation of Table 2.3

1	2	3	4
<p>Operations for the processing of raw materials (Tolling operations)</p>	<p>Contract relationship, which represent a type of contract production, according to which only the process of raw materials processing is given to outsourcing</p>	<p>Low financial costs. The possibility of developing new advanced technologies transferred by the customer. Reducing the cost of sales of products, advertising and search for markets. Preservation of production and personnel potential</p>	<p>Limit potential profit. Increase customer dependency. Return again products to another country</p>
<p>Contract management</p>	<p>CR under which operational control over the assets of the company of the host country is transferred to the associated company – the contractor, which carries out management activities for a fee</p>	<p>The possibility to direct the company's resources in this area of activity, in which the company has the greatest experience. Minimal financial risk when entering foreign markets</p>	<p>Limitations of potential profit by terms of agreement. The probability of inadvertent transfer to the partner of experience and methods of the company</p>
<p>Outsourcing (off-shore outsourcing)</p>	<p>CR, the essence of which is to implement activities related to business support processes: innovative technologies, business functions and knowledge management</p>	<p>Improving process efficiency. Cost reduction. Gaining broader access to expertise</p>	<p>The risk of losing control over key processes. High costs of implementing outsourcing.</p>
<p>Contract farming</p>	<p>CR between international buyers and farmers (including intermediaries), according to which conditions for farming and marketing are established</p>	<p>Access to land resources in countries with no land market. Transfer of knowledge and technology. Stable trade relationship</p>	<p>Riskiness of transferring activities to third-party companies Exploitation and excessive wear of the resources of the host country are possible. Tight control. Limited choice</p>

Source: compiled by the author according to [14: 44]

Contract production (subordinate production, subcontracting) is a way of organizing production using the division of labor between the customer (contractor) – most often the main (assembly) enterprise and subcontractors (suppliers) – specialized enterprises that produce components and perform work and services. To subcontract include such types of production activities:

- production and delivery to the customer of components of mechanical engineering products, which are manufactured in accordance with international (Ukrainian) standards and are supplied in large quantities (for example, fasteners, packaging materials, etc.);
- design, manufacture and supply to the customer of units, blocks and individual parts (products) in accordance with the agreed technical specifications [48]. This cooperation is usually signed out under OEM terms (OEM – Original Equipment Manufacturers);
- development, manufacture and supply of components and individual parts (products) made to the contractor's order, which are supplied to it, as a rule, in limited quantities and in strictly set terms (innovative outsourcing). This type of cooperation is being drawn up by ODM agreements (Original Design Manufacturers), according to which subcontractor firms develop and manufacture new products – «original product manufacturers» [47].

Contract-production is the simplest but very common form of cooperation. A common feature of agreements of this type of cooperation is their relatively short duration – most of them include short-term obligations (which, if necessary, are renewed annually/periodically). In fact, subcontracting is based on the principles of outsourcing, that is, there is a withdrawal of certain functions or activities outside the organization.

The most common typology of contract production is its allocation on the basis of production capacity and on the basis of specialization:

- subcontracting on the basis of production capacity is used in the case when the contractor lacks its own production capacity to fulfill the order in full, and the creation of additional capacity is unprofitable and undesirable. This form of subcontracting is used when the volume of orders received by the contractor is unstable;
- subcontracting on the basis of specialization – in this case, the contractor wishes to use certain services of subcontractors with special equipment and apparatus for the production of complex and high-precision work [47].

In general, the main advantage of subcontracting is that it allows small businesses to move from simple value-added schemes to their own industrial production, while large enterprises can reduce costs and focus on the production of primary products.

Agreements for the processing of raw materials are a kind of contract. The economic content of the operation lies in the fact that the owner of

the raw materials, does not own processing facilities, entitles the company to processing to the extent necessary to ensure the production of a given quantity of finished products, to cover the processing costs associated with processing, as well as to the enterprise. The owner of the product remains the customer. For the customer, the motive for this form of cooperation is the desire to reduce production costs by locating the production process in countries with lower wage costs, as well as the lack of technology or production capacity in the client country to produce the necessary products. For the processor, the motive is the desire to load free production capacity with a lack of funds for the independent purchase of raw materials.

An international management contract (contract management) is that one firm provides management know-how to other companies that provide the necessary capital and organize activities in the local market. This usually involves the implementation of a routine management/control system and training of local staff with the possible subsequent purchase of a local firm [46]. Management agreements can be used as an independent form of business, as well as within the framework of using other cooperative forms (for example, in business franchising, the construction of large-scale facilities, joint production). On the one hand, management contracts are the least risky method of entering the foreign market and are initially profitable. On the other hand, as with other forms, there is a danger that the partner may become a competitor, in addition, this form requires considerable effort to solve communication problems in the local market, and lack of control limits the supplier's ability to develop the production potential of the enterprise.

Outsourcing is still gaining momentum, making changes in the way of doing business in the global market, both at the local level and globally, retaining their growth positions over the past decades. The use of outsourced services by companies – specialists in a particular industry – helps simultaneously to increase the competitiveness of their company in the eyes of dynamically developing, and also to gain access to the necessary professional resources with a certain reduction in their own expenses to solve the set tasks.

Outsourcing is a concept that is firmly established in our life, means a set of measures aimed at transferring certain processes and functions of another organization by an enterprise that professionally specializes in assigned tasks. Also, outsourcing has a longer interaction time compared to one-time services that are requested more situationally. So, making a strategic decision on outsourcing, the customer gets access to the existing business process, individual systems and infrastructure of external companies, concentrating on the production of core business in its company, increasing capacity with increasing market presence.

Depending on the location of the customer and the contractor and the subordination between them, the following types of outsourcing can be identified: offshoring – the customer and the contractor are located in different countries, the contractor is a division of the customer; outsourcing –

the customer and contractor are in the same country, and the contractor is independent now; offshore outsourcing is a mixed form. The customer and the contractor are located in different countries, but the contractor is an independent enterprise. From the point of view of our object of research, it is offshore outsourcing that is the subject of our interest.

Depending on the tasks that are transferred to the solution to the contractors, the following types of outsourcing can be distinguished: production outsourcing – the transfer of production functions to the performer; business process outsourcing – transfer to the contractor, is not the main activity of the customer; IT outsourcing is the transfer to the maintenance of the customer’s information systems (for example, development or support of software, site development, maintenance of related equipment) [48].

The following classification attribute reveals the essence of the above contractual relationship in a completely different projection: as a strategy for entering the foreign market. That is, they are divided in accordance with the level of costs associated with the entry of the enterprise to foreign markets and the level of investment attractiveness, the matrix representation of which is illustratively depicted in Fig. 2.5. A common strategy for entering foreign markets is contractual agreements through joint efforts with commercial enterprises of the partner country. A joint business strategy (or contractual strategy) differs from an export one in that a partnership is formed, which is realized through licensing, franchising, contract production, management contracts, turnkey work, tolling schemes, and so on. The contractual strategy differs from the investment strategy in that in the territory of the partner country efforts are combined with a local company.

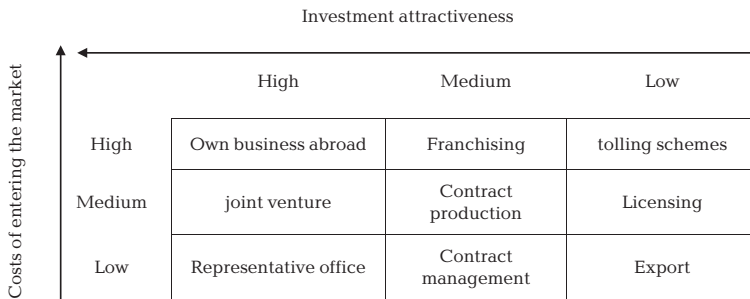


Fig. 2.5 An illustrative matrix of differentiation of contractual relationship, taking into account the level of costs for entering the enterprise to foreign markets [49]

Fig. 2.5 shows that contractual relationship is between two opposing types of foreign economic activity and, concurrently, market entry strategies. Almost all of them are characterized by an average level of entry costs

and an average level of investment riskiness. However, each of these types has its own advantages and disadvantages.

For example, the advantage of a licensing strategy is an insignificant capital investment and a low level of financial risk. The firm transfers the right to produce and/or sale of a product (licensor) gets access to complete information about local markets (business environment in the target market, potential licensees, potential sales, etc.) from the licensee and the possibility of going abroad a market with minimal risk, without using large financial and managerial resources, and the firm that is granted this right (licensee) gets access to production technologies of a product that already has recognition in other international markets, in relationship but low cost for research and development [49].

However, access to foreign markets through licensing has its drawbacks. Licensing requires serious legal support, because there is always a risk of disagreements and problems, and failures when signing a contract can lead to serious losses on both sides. Another disadvantage of this strategy is the lack of the licensor's ability to exercise permanent and strict control over the licensee's activities as compared with the creation of its own enterprise or branch. In addition, as a result of licensing, there is a threat of lost profits for both partners. With a long-term licensing agreement, there is a risk for the licensor to make a profit less than under direct trading conditions [45]. In addition, the licensor and the licensee are dependent on each other for ensuring product quality and maintaining brand reputation. Another problem is the long-term strategic implications of licensing a technology company. At the end of the license agreement, the licensee can become a powerful competitor to the licensor, learning the secrets of the product, or developing its own technologies based on the licensor's technologies and starting its activities in the territory where the licensor is already working. There is also the threat of a licensee creating an independent company's reputation [50].

Franchising has several advantages for both parties. So, for the franchisor, it is, first of all, minimizing the costs of organizational and management activities at the same time with the rapid spread of their products than using their own capital. In addition, the franchisor has the opportunity to enter into lucrative contracts with suppliers.

Unlike licensing, franchising provides for greater control and support of the franchisee by the franchiser. Franchising, as well as licensing, has a contractual form, that is, it provides a clear and complete compliance of the franchisee's work with the standards of the franchisor (not only on matters relating directly to the products, but also compliance with a given plan of business operations, financial reporting, etc.). However, franchising can be flexible in order to establish and adapt the product to the local customs and tastes of consumers in the country of the franchisee. The franchisor is able to access important information about the customs and cultural aspects of doing business in a particular country.

Significant advantages provided by the franchisee, in addition to running a business that has proven itself with a proven product and its production technology, is assisting the franchisor in opening new outlets, transferring experience, organizing advertising campaigns and forming a positive image of the company's products in representing consumers. The main disadvantage of franchising is the need to distribute profits received by the franchisee. In addition, franchising may cause difficulties associated with the discrepancy between the standards of the franchisor and the franchisee, may require the involvement of significant funds [52; 51].

Among the advantages for the initiator of the production under the contract are the minimum investment and the absence of political risk; maintaining full control over the market, product promotion, trademarks and the like; no currency risk; creating a favorable image in the foreign market, in particular, in front of the local government through the creation of jobs; may reduce the cost of production if the costs in the country of placement are lower; market penetration protected by high tariff and non-tariff barriers [53]. Contract production is especially beneficial when the product is not patentable and when the market is too small to justify investing in the construction of its own enterprise.

At the same time, contract production has certain disadvantages for its initiator, in particular: it is not easy to find a partner who can make a quality product and ensure the terms of the contract; sometimes significant investments are needed in the training and development of engineering and technical personnel in order to ensure adequate technical training; after the expiration of the contract, the local manufacturer, has the technology and the full production cycle, may be a competitor and the like. A significant disadvantage of this strategy is the lack of control over production processes, which can lead to a decrease in product quality [52].

Among the advantages of this contract management strategy are the minimal risks from being in a foreign market, the speed of earning income from activities, the lack of competition from the client, the opportunity to receive additional income from increasing profitability or increasing the sales volume of a managed company, the ability to carefully study the foreign market and the impact to the managed firm [53].

This strategy also has certain limitations. Thus, a company that will manage another company will not be able to conduct independent business in the country of the managed company for the duration of the agreement. In addition, the management company must have a sufficient number of highly qualified personnel, ready to work abroad during the period of the agreement.

The implementation of tolling operations is beneficial to business entities in terms of taxation, because the give and take raw materials and finished products from it, as well as processing services, may not be taxed in the country in which the processing is carried out [55].

The advantages of work on a give-and-take basis for a processor are as follows: minimizing financial resources for financing working capital;

the possibility of mastering new progressive technologies transferred by the customer; ensuring maximum capacity utilization and, as a result, the preservation of production and personnel potential of the enterprise. In addition, the effect of the scale of production leads to a decrease in the value of costs per unit of production and, accordingly, to an increase in the competitiveness of its own products; reducing the cost of sales of products, advertising and search for markets; tax savings.

In the theory of global production networks, contractual relationship are divided according to such a classification criterion as the type of management of global production networks, expansionary, modular, and relative. Their characteristics are given in Table 2.4.

Some TNCs coordinate supplier networks through their sales offices, which act as primary communication with local firms, through regular and quick on-site checks. These offices provide technology support to local suppliers to help them improve their operational and innovative capabilities. The low level of freedom that expansionist CRs characterize makes them similar to tightly controlled branches in vertically integrated operations, where controls are the same – organizing and coordinating suppliers and partners, including knowledge transfer and quality control processes [36].

Modular CRs emerged as a strategy to minimize the costs of managing global production networks and simplify the selection and/or change of suppliers. This form of control is widely used in the field of electronics. The combination of highly qualified first-tier suppliers and the standardization of product specifications allows TNCs to deliver products adapted to the needs of consumers, rather than engaging in complex transactions with suppliers. The CR partner works with TNCs to supply products tailored to the needs of the consumer, but it can be a supplier for other companies and can be supplemented by other suppliers without any difficulties [36].

Relative CR is the result of a joint relationship between TNCs and a partner company. They appear when cooperation between TNCs and other firms is based on communication over implicit knowledge, on the division of key competencies between them. The contractual arrangements on which such relationship management is based should reflect the exchange of implicit knowledge and the complexity of evaluating the efforts invested by partners in the business. In such cases, such a form of interaction as a joint venture is typical of relation management [56].

Contractual relationship, as well as international cooperation, can be divided into types depending on their application at a specific production stage:

- 1) contractual relationship implemented in the pre-production phase;
- 2) CR sold in the production process;
- 3) CR, implemented at the post-production phase. And a more interesting and modern classification will be modified according to such criteria as types of contractual relationship depending on the stage of inclusion in the process of creating value added.

Table 2.4 Contract relationship as a type of management of Global production networks

Management type	Key characteristics of a TNC supplier relationship	Typical examples	TNC coordination	Major implications for the supplier	Major implications for GPN development
Expansionary	<ul style="list-style-type: none"> – Relatively simple transactions; – TNC seeks to gain a significant part of market power; – TNC uses tight production control 	<ul style="list-style-type: none"> – Multi-level structure of suppliers in the automotive industry 	Relatively high	<ul style="list-style-type: none"> – Relatively small suppliers; – high degree of asymmetry of power; – high level of control and verification by a leading company; – knowledge transfer is focused only on efficient revenue generation 	<ul style="list-style-type: none"> – Can lead to a relatively high level of dependence on several TNCs with a low level of reorientation costs; – knowledge transfer takes place, but limited in scale
Relative	<ul style="list-style-type: none"> – Complex transactions; – product information or process is difficult to code and transfer; – partnerships 	<ul style="list-style-type: none"> – Relationship between suppliers and buyers of retail or major clothing brands 	Medium	<ul style="list-style-type: none"> – Interdependence between partners; – fast interaction and exchange of knowledge between partners; – the supplier mainly produces differentiated products 	<ul style="list-style-type: none"> – The level of technology transfer and training is relatively high; – more stable demand due to higher reorientation costs of leading companies
Modular	<ul style="list-style-type: none"> – Complex transactions; – product specification information is easily transmitted; – TNC prefers coordination within a partner firm 	<ul style="list-style-type: none"> – Supply of finished products in the field of electronics 	Relatively low	<ul style="list-style-type: none"> – Lower level of dependence on the leading company: the supplier strives to conduct its activities in more than one GPN; – limited investment related to specific transactions 	<ul style="list-style-type: none"> – Significant networking opportunities; – relatively large volumes of information flows within the framework of inter-company relationship
Trade (market)	<ul style="list-style-type: none"> – Relatively simple transactions; – product specification information is easily transmitted; – price as the main control mechanism 	<ul style="list-style-type: none"> – Consumer goods 	Low	<ul style="list-style-type: none"> – Has no formal cooperation between partners; – low cost of reorientation for the consumer 	<ul style="list-style-type: none"> – The full influence of market forces; – learning opportunities are limited to trade channels

Source: compiled by the author on [14; 36; 56]

At the first, the company performs only assembly, at the second, it acts as a turnkey supplier (original equipment production), at the next level becomes the developer of its own design solutions (original design production) and at the final level – the creator of its own brands (original brand production) [58]. The process of adding value goes through three stages: pre-production, production and post-production. Participation in the first and third stages brings the companies the greatest income, in the second – the minimum.

In a fragmented production process, a country can position itself at different stages of production in the value chain of the same sector, which has different technological levels and, therefore, differentiated profits. These stages form a «smile curve», which shows the dependence of the value added in the GPN with the stages of the production chain [59].

In this sense, a certain country can be located at the top or bottom of the curve. Certain steps can be characterized exclusively by the supply or production of raw materials, create negligible cost and are mostly «smile curves», as well as knowledge, such as research and development, design and brand foundations, which add higher value to the production process. The following milestones are those related to the collection of products and the provision of services (after sales or customer service). According to the «smile curve», value chain tips provide greater added value when a country owns both upstream stages and intangible assets at the output.

Thus, a country may have a large share of exports of technologically intensive sectors, but participating in the production phase does not provide significant profits, such as installation work. Or, on the contrary, it may participate in the phase at the ascending stage as a supplier of the high paying value of research and development in the productive sectors that are not evaluated as a sector of higher technology. In other words, the fact that the final product is completed and exported in one country does not necessarily mean that the domestic firms of this country dominate in GPN and add a large percentage to the total cost of this product [60].

Recently, vertical competition has been growing inside global production networks: companies are fighting for a larger share in the distribution of value within the production chain and the transition to the first or third stages, reflected in the diagram. Global production networks are processes that actually occur in the global economy, forming and determining the competitiveness of countries, their level of development, place in the production cycle.

Investigating the theoretical and practical aspects of the CR application, we concluded that specific types of contractual relationship are used mainly in certain areas of activity. Thanks to this observation, it became possible to classify contractual relationship in accordance with their application in a particular area of economic activity: CR in the processing industry – production under a contract; CR in the hotel and restaurant business and

retail trade – franchising, licensing; CR in agriculture – contract farming; CR in the field of innovative technologies – IT BPO outsourcing, licensing; CR in banking and insurance – contract management; CR in the mining industry – concessions. Such a classification is associated with those inherent essential characteristics and mechanisms of interaction between partners, expressed in a separate form of CR.

Consequently, the firm's decision to provide benefits to contractual relationships as an externalization tool is based on the key advantages that they have in their nature. These benefits, if do not take into account certain types of CRs and their features, include: relatively low initial capital costs and capital costs of operating operations; the risk is reduced accordingly; greater flexibility in adapting to changes during the business cycle and to changes in demand [18]; delimitation of secondary business processes that can be implemented at lower costs or more efficiently by a third party.

The need to change the levers of control for firms in a post-crisis world and the ability to avoid risks all increase the attractiveness of using CR, along with low start-up costs. The more companies realize the need to prevent business cycle shocks or delegate market risks to a partner through licensing or franchising, the more important HFs become inherent in the process of changing production levels [15]. Finally, there is a tendency in various industries to focus on core competencies that accelerate activities, examining parts of the value chain to other operations, given the desire to maximize efficiency at all stages of value creation while serving growing markets that require low price versions of products from mature markets [61].

In addition to the advantages, there are also disadvantages and risks associated with the contractual relationship. To begin with, externalization of any part of the production process will result in the loss of a part of the value added, reflecting this process. Natural and structural market imperfections and associated transaction costs can also affect the level of CR attractiveness. This is balanced by the relative profitability of other segments of the value chain and the potential savings that can be achieved through externalization of activities. Risks associated with the use of CR generated by a low level of control over the processes, potential consequences for the quality and service levels, as well as technologies, skills and other forms of intellectual property are transferred to the partner [14]. The purpose of the contract to conclude a contractual relationship is precisely the prevention or leveling of the resulting deficiencies and risks, the establishment of parameters for the distribution of value added and profits, including the principles and extent of the distribution of risks between the parties.

In addition to the outlined factors that increase the attractiveness of using CRs, the following should be attributed: increasing fragmentation of the production process between locations, increasing the complexity of coordinating knowledge and spreading industry standards, improving intellectual property protection regimes at the global level, increasing

production capacity and the possibility of working with partners on new ones markets with a high level of trust and technological support [36].

Analysis of the international practice of the organization of contract production and sales, as well as the approaches of scientists regarding the identification of types of contractual relationship in the system of international cooperation allowed to identify the following classification criteria for systematization:

- type of interaction between partners: subordinate industrial production, outsourcing of services, subordinated agricultural production (contract farming), franchising, licensing, contract management, concessions;
- strategy of entering the foreign market (provides for the use of polyvariant formats of contractual relationship as a strategy for joint activities of an international company in the market of the executing enterprise);
- type of management of global production networks (expansionary, modular, relational contractual relationship);
- use of contractual relationship at a specific stage of production or sales (contractual relationship that are implemented in the pre-production phase, those that are implemented in the production process; contractual relationship that are implemented in the post-production phase;
- considering the stage of inclusion in the process of creating global value added (specialization in assembly operations, specialization in turnkey operations, specialization in its own design solutions and developments, creation of its own brands).

The consideration of the proposed features makes it possible to identify the variability in the use of contractual relationship and identify the benefits and risks relevant to each of the varieties.

2.3 The current state and development trends of contractual relationship

The current state of the world economy can be characterized by intensive interpenetration and interweaving of trade and production relationship between countries at various levels of management, including corporate. Multinational companies are actively forming new localization centers for their own production, expanding the range of their production facilities in new foreign markets. At the same time, the international practice of cross-border capital flows is evidenced by the limitations of traditional investment methods of external expansion, which is due to a number of factors. First, direct investment, as the last decade has shown, tends to stagnate in the face of global recession and global and national economic development turbulence; secondly, investment as the most costly form of entering the foreign market encounters additional risks associated with political instability, corruption of local elites, military conflicts, and the like.

In this regard, companies are increasingly beginning to use the methods of organizing their own international production, are alternative to direct investment. World statistics confirms the fact that the significance of these relationship is dynamically increasing every year, the growth rate of production and trade through contractual formats is several times higher than the growth rates of world exports and global GDP both in the world as a whole and in individual groups of countries [14].

According to the assessment, about 80 % of world trade is carried out within the framework of TNCs, while intrafirm trade constitutes one third of trade within TNC, another third is occupied by ordinary trade of TNCs with other related companies and about 13 % of trade of TNCs is trade within contractual relationship (Fig. 2.6) [62]. That is, it can be argued that contractual relationship occupy an important place in the global production networks of TNCs and provide a significant contribution to the development of international trade.

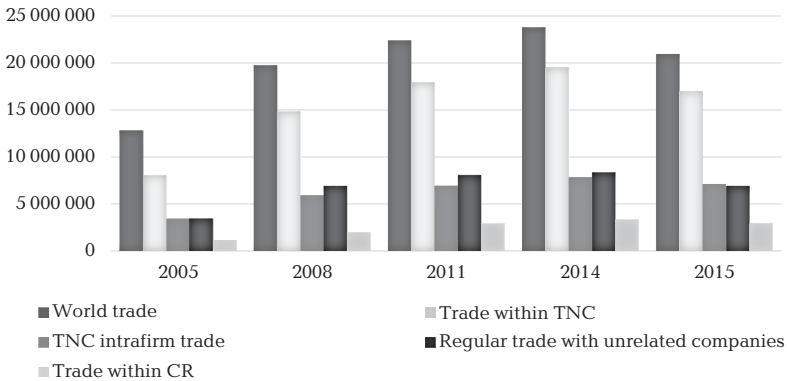


Fig. 2.6 CR in the structure of international trade, average for 2005 – 2015, trillion USD. *Source: compiled by the author on the basis of [63]*

In order to present a more comprehensive assessment of CR in global cooperation processes, it is advisable to compare the volume of contractual relationship with indicators characterizing the main global economic processes: the volume of world exports of goods and services, the volume of world exports of services, foreign direct investment flows and accumulated FDI (Fig. 2.7).

Considering the fact that FDI are contrasted to CR in nature; and in the process of choosing the paths of development of TNC production networks, they are opposed to each other as two polar alternatives of choice, the process of their comparison will visually reflect current trends in international cooperation, including in the world economy as a whole. As we can see from the figure, the contractual relationship operations from 2010 to 2015 exceed annual FDI flows in their volumes, for example, in 2010, the CR was carried

out by 365 billion USD more than FDI, in 2013 and 2014 this difference reached 700 billion USD, and in 2015 there was a significant reduction in the difference between the CR and FDI flows; CR amounted to 1994 billion USD, and FDI flows – to 1.762 billion USD, such a change was bilateral: for the first time in five years, CR volumes decreased in comparison with previous years, and FDI flows increased significantly. The Fig. 2.8 below shows the dynamics of the relationship between the volumes of contractual relationship and the main indicators of international world economic processes.

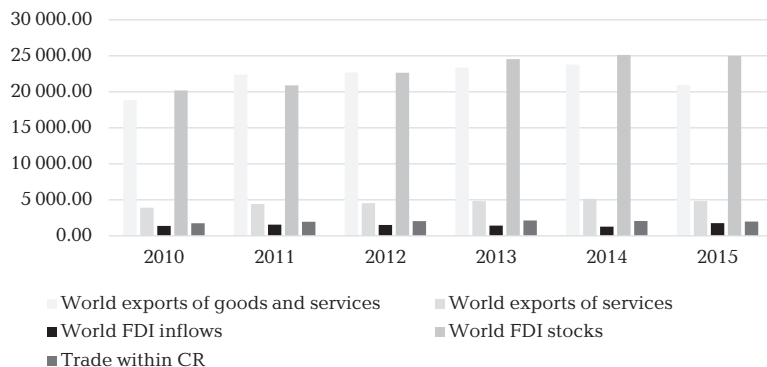


Fig. 2.7 Trade volumes within the framework of cross-border contractual relationship in comparison with other trade and investment transactions, billion USD [64 – 66]

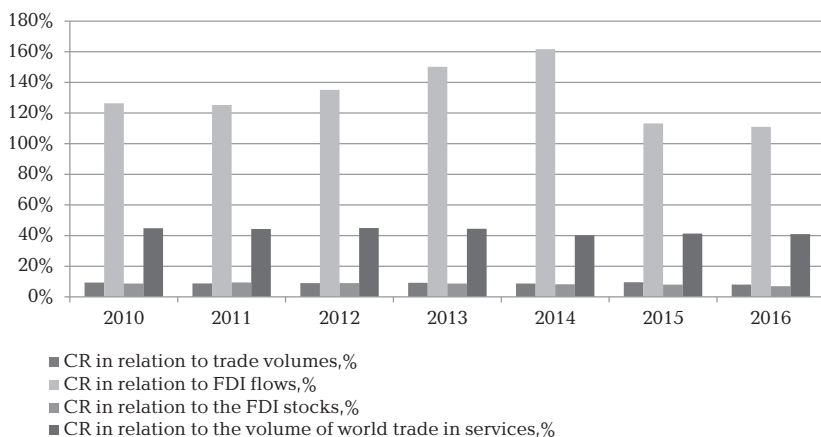


Fig. 2.8 Ratio of CR volumes with other international trade and investment transactions for 2010 – 2016, %. Source: calculated by the author on the basis of [64 – 66]

Fig. 2.8 shows the indicators reflecting the weight of contractual relationship in accordance with the basic economic characteristics of world processes. As we see, CR in world trade on average for six years consistently takes 9 %, that is, the trends in the development of world trade are in tune with the CR trends. In world trade in services, contractual relationship account for 43 % on average, despite the fact that most contractual relationship are recorded in international statistics as services: licensing and R&D, franchising, computer services, management services, processing of material resources. It is this indicator that most characteristically reveals and indicates the importance of contractual relationship both in the world economy and in international cooperative ties. As noted earlier, the contractual relationship from 2010 to 2015 substantially prevailed over the volume of FDI flows, that is, the CR were a worthy alternative to the internationalization strategy.

Cross-border contractual relationship so far amount to about 2 trillion USD. Of this amount, 1 trillion USD are accounted for contract management and outsourcing services, franchising accounted for about 350–370 billion dollars, licensing 340–360 billion USD, and contract production for 100 billion USD [14]. This assessment is approximate, and includes only the most important industries in which the most common use of CR. The total also excludes other types of CRs, such as contract farming, for which reliable data is available.

In addition, CRs are developing rapidly. In most cases, the growth in their use outstrips the growth of the industries in which they are applied. This growth is due to a number of key benefits of CR for TNCs:

- 1) the relatively low initial capital expenditures that are needed and the limited working capital required for operation;
- 2) reduced risk;
- 3) flexibility to adapt to changes in the business cycle and demand;
- 4) using these methods to externalize non-core activities, often can be carried out by other operators at lower costs [104].

The choice of companies, predisposing factors, and factors contributing to the use of a certain type of internalization have a different effect on stimulating the growth of various CR types in different industries [67].

The tendency of development of certain CR types is not uniform, since the mechanisms for their implementation are significantly different from each other. World economic processes in different ways affect the demand for one or another CR. For example, we see that in 2015 (in accordance with the chain growth rate), the volume of franchise operations increased by 11 %, while contract production decreased by the same indicator, that is, there was a sharp change in the CR structure.

In many cases, a TNC business model or strategy may incline a company to use a certain type of contractual relationship. In the case of franchising, a business model that is built on exploiting intellectual property

or developing a product is a core competency that forces some brand owners, such as Benetton, to use an exclusive franchise for distribution in both domestic and foreign markets [68].

Table 2.5 The dynamics of the types of contractual relationship for 2011 – 2015

Indicators		Licen- sing	Fran- chising	Contract produc- tion	Out- sourcing	Contract manage- ment and other business services	Total
Basic growth to 2010, %	2011	14	4	2	9	15	12
	2012	16	12	6	11	19	16
	2013	25	18	-11	13	27	22
	2014	36	19	12	15	13	18
	2015	33	32	-5	2	6	14
Chain growth, %	2011	14	4	2	9	15	12
	2012	2	8	4	2	4	4
	2013	7	5	-16	1	6	5
	2014	9	1	26	2	-11	-4
	2015	-2	11	-15	-11	-6	-3

Source: compiled by the author on the basis of [14; 67]

In pharmacology, the tendency to outsource production steps along the entire value chain in home markets inclines TNCs to globally adapt the same simple model. For example, within the framework of the outsourcing strategy, Pfizer manages an average of 150 manufacturers (on a contractual basis) worldwide. From 2003 to 2008, Pfizer reduced the number of its own enterprises by almost 50 % (to 46 factories). The main considerations in the decision on outsourcing were: the ability to supply, flexibility of capacity, cost competitiveness and technology, as well as ensuring the integrity/reliability of the supply chain, product quality, and compliance with regulations [69].

As for contract production, in some industries, such as the automotive industry and the electronics industry, where the model is mature, and the contract manufacturers themselves turned into large TNCs with strong competencies and cost advantages, it would be almost impossible for brand owners to invest funds in their own intermediate production facilities. For example, Denso (Japan), a manufacturer of automotive parts, and Foxconn (Taiwan Province of China), a contract manufacturer of electronics, have huge operations in many locations just as they make significant research investments [6].

The competitive advantages that a local business has may make it impossible to enter the market through FDI or lead to a loss of offers. In a more exceptional case, the obstacles and restrictions for FDI as a form of entry into the economy of the host country may contribute to a wider use of CR. For example, restrictions on property for foreigners and restrictions on retail

sales in the Indian food industry sector have prevented or impossible entry to markets for large international trading companies, such as Walmart [70], which exclusively work in the stores owned by them; however, such a policy created an opportunity for Spar International, an international retail franchisor (Germany), to expand its network through the huge and growing Indian consumer market [71].

CR can be estimated by the following indicators: trade volumes created by CR, value added and the number of employed persons in general and in developing countries in particular in the context of individual industries (Table 2.6) [71].

Table 2.6 Indicators of the volume and structure of international CR in the context of individual industries, average annual values for 2010 – 2015

		Indicators			
		Sales, billion USD	Value added, billion USD	Employment, million people	Employment in developing countries, million people
1.	Contract production (technologically/capital-intensive industries)				
1.1.	Electronics	58 – 60	6 – 10	1.4 – 1.7	1.3 – 1.5
1.2.	Automotive parts	53 – 55	4 – 7	1.1 – 1.4	0.3 – 0.4
1.3.	Pharmaceuticals	6 – 8	2 – 4	0.1 – 0.2	0.05 – 0.1
2.	Contract production (labor-intensive industries)				
2.1.	Clothes	50 – 52	6 – 9	6.5 – 7.0	6.0 – 6.5
2.2.	Footwear	12 – 15	2 – 7	1.7 – 2.0	1.6 – 1.8
2.3.	Toys	3 – 5	1 – 3	0.4 – 0.5	0.4 – 0.5
3.	Outsourcing services				
3.1.	IT services and business process outsourcing	90 – 100	50 – 60	3.0 – 3.5	2.0 – 2.5
4.	Franchising				
4.1.	Retail, hotel and catering business and other services	330 – 350	130 – 150	3.8 – 4.2	2.3 – 2.5
5.	Contract management (selected area)				
5.1	Hotel business	15 – 20	5 – 10 Percent	0.3 – 0.4 Related trade	0.1 – 0.15 Related value added
6.	Licensing				
6.1.	Intersectoral		17 – 18	340 – 360	90 – 110

Source: compiled by the author on the basis of [64]

Analyzing the main CR indicators it is possible to detect the difference depending on the area of their application. Trade volumes, value added

and employment volumes in technologically intensive industries, such as electronics, automotive components and pharmacology, where production is concentrated in the hands of several large international companies, differ from those of traditional labor-intensive industries, such as clothing, footwear and toys, where large number of small and medium enterprises. In particular, the main difference lies in the fact that in conditions when exports and the volume of related value added in technologically intensive industries exceed the same indicators in labor-intensive industries by an average of 1.5 times, then the number of employed persons due to contract production in labor-intensive industries 5 times higher than in technologically intensive industries. If to evaluate the CR effectiveness, it is clear that it is higher in technology industries, because one employed has a high added value, and labor costs are lower – this is definitely an advantage for companies that expand their activities thanks to offshoring. But on the other hand, the more jobs are created in the country, the better for its socio-economic development, unemployment decreases, usually international companies do not neglect the practice of honest business and positively influence the formation of a culture of employer-employee relations.

But only half or even a third of jobs created due to contract production in technologically intensive industries account for halo of developing countries. First of all, such a placement structure depends on the complexity of the technological process, which may require specific and folding knowledge and/or equipment. It should not be forgotten that the very notion of «developing countries» is quite heterogeneous, since it includes a huge number of completely different countries, differing not only in social structure, language, size and availability or lack of resources, but also the level of technological development. It is precisely this that does not allow us to make rough assumptions in identifying one specific trend in the CR development for this group of countries. However, data on the volume of employment at the CR expense in developing countries confirms the fact that outsourcing processes that require significant manual labor tend to be based in locations with cheap labor, in particular in these countries.

Unlike traditional contract production, IT-BPO outsourcing and franchising create enormous sales and value added, again, it is confirmed that a greater value added is created in the services sector than in the real sector. This sales volume, created under the franchise scheme, is associated primarily with its significant distribution in retail trade, forces the franchisee to purchase goods from its franchisor for sale.

CRs in their area of distribution and taking into account the peculiarities of the implementation of their mechanisms in economic activity are manifested through complex, often interrelated and intertwined forms of cooperation. First of all, they include such a well-known form of relations

as contract production (contract), in a different way – processing of raw material [72].

CRs in the form of contractual production are extensive and far-reaching in scope. They link the widespread operations of a large number of leading TNCs in the world. Most of these processes in the framework of international integrated production take place within the transnational operations of TNCs, which are manifested to a greater extent due to intra-firm trade. However, contractual production (or subordinate production) began to acquire wide distribution only in the last decade of our century, since TNCs began using network forms of production [62].

Contract production covers two types of industries: technologically intensive industries such as electronics, semiconductors, automotive components, pharmaceuticals; and labor intensive – production of clothing and footwear. Among the first group of industries, a relatively small group of large players with a global employment level prevails. The electronics and semiconductor industries are the largest of these firms, mostly from developing countries, and have a center of gravity in East and Southeast Asia, with a global network of factories in emerging economies in Latin America, Eastern Europe and other countries.

In the field of automotive parts production, pharmacology and IT-BPO, companies from developed countries are the largest consumers of contractual relationship, while in electronics and semiconductor production the mixed situation prevails, although in developing countries the advantage is on the contract production side. In the case of labor-intensive production, TNCs from developing ones act as intermediaries between leading TNCs and contract service firms, ensuring the production process in global production networks [73]. Table 2.7 shows the sectoral structure of the largest CR participants (contract production).

In the field of electronics, thanks to 10 companies providing production services under the contract, 1.115 thousand people were employed, and sales in these 10 companies in 2015 amounted to 237.3 million USD. Almost the same figures show the 10 leading companies engaged in the production of automotive components on an outsourcing or on a give-and-take basis. The third place in sales is IT-BPO – 151.6 million USD (sales of the 10 largest companies). The lowest indicators on sales and on employment of companies operating in the pharmaceutical industry: 17.5 million USD of sales and 71 thousand employed people [72].

Two thirds of the profits of the entire electronics production services market under the contract belong to the 10 largest companies. They work on almost all major brands in the field, starting with Dell and Hewlett-Packard in the production of computers for Apple, Sony and Philips in the production of consumer electronics [67]. All but three out of ten companies located in East Asia – the main production is concentrated in East and Southeast Asia, mainly in China.

Table 2.7 The largest participants of contractual relationship (contractual production) by selected sectors, average figures for 2011 – 2015

Company	Sales, million USD	Number of employed, thousand people	Company	Sales, million USD	Number of employed, thousand people
1	2	3	4	5	6
Electronics					
Foxconn/Hon Hai (Taiwan Province of China)	59.3	611	Inventec (Taiwan Province of China)	13.5	30
Flextronics (Singapore)	30.9	160	Jabil (United States)	13.4	61
Quanta (Taiwan Province of China)	25.4	65	TPV Technology (Hong Kong, China)	8.0	24
Compal (Taiwan Province of China)	20.4	58	Celestica (Canada)	6.5	35
Wistron (Taiwan Province of China)	13.9	39	Sanmina-SCI (United States)	5.2	32
Total				196.5	1115
Automotive parts					
Denso (Japan)	32.0	120	LG Chem (Republic of Korea)	31.1	13
Robert Bosch (Germany)	25.6	271	Faurecia (France)	13.0	58
Alsin Selki (Japan)	22.1	74	Johnson Controls (United States)	12.8	130
Continental (Germany)	18.7	148	Delphi (United States)	11.8	147
Magna International (Canada)	17.4	96	ZF Friedrichshafen (Germany)	11.7	60
Total				196.2	1117

Continuation of Table 2.7

1	2	3	4	5	6
Pharmaceuticals					
Catalent Pharma Solutions (United States)	1.6	9	Jubilant Life Sciences (India)	0.7	6
Lonza Group (Switzerland)	1.3	4	NIPRO Corp. (Japan)	0.6	10
Boehringer (Germany)	1.1	6	Patheon (Canada)	0.5	4
Royal DSM (Netherlands)	1.0	4	Fareva (France)	0.4	5
Piramal Healthcare (India)	0.7	7	Haupt Pharma	0.4	2
Total				8.3	65.3
Semiconductors production					
TSMC (Taiwan Province of China)	9.2	26	Dongbu HiTek (Republic of Korea)	0.4	3
UMC (Taiwan Province of China)	2.9	13	VIC (Taiwan Province of China)	0.4	3
Chartered Semiconductor (Singapore)	1.5	4	Tower Jazz (Israel)	0.3	2
Globalfoundries (United States)	1.1	10	Samsung Electronics (Republic of Korea)	0.3	..
SMIC (China)	1.1	10	IBM Microelectronics (United States)	0.3	..
Total				17.5	71
IT-BPO					
International Business Machines (United States)	38.2	190	NTT Data Corp. (Japan)	8.9	35
Hewlett-Packard (United States)	34.9	140	Computer Sciences Corporation (United States)	6.5	45
Fujitsu (Japan)	27.1	18	Cap Gemini (France)	6.1	109
Xerox (United States)	9.6	46	Dell (United States)	5.6	43
Accenture (Ireland)	9.2	204	Logica (United Kingdom)	5.5	39
Total				151.6	869

Source: calculated by the author on the basis of [64; 66; 74]

Today they own and operate hundreds of industries in developing countries that are far beyond the borders of the home country, including Brazil, India, Mexico and Turkey. In addition to these giants in the field there are a large number of small and medium contractors that appear in locations around the world, and are important participants in a particular local production system [75]. But such companies lack global presence and proximity to leading TNCs in the field of electronics; nevertheless, many of them act as the second or third level of suppliers for large companies providing contractual services.

As for contract production in low-tech industries, and in particular in the production of clothing and footwear, it is a highly competitive industry, which is a huge number of small firms serving a relatively limited number of international brands and brands (Table 2.8) [75]. Contract production of this type is characterized by wide geographical dispersion. Production for such well-known brands like Nike or Hugo Boss is an important generator of jobs in developing countries. For example, in the textile sector of Cambodia, there are approximately 376.000 workers, where most of the production is on contractual terms. In Sri Lanka, 400,000 workers are employed in the textile industry, 60 % of whom work under the same contractual agreements.

The world's largest brands are Adidas (Germany), Christian Dior (France), and Nike (USA); the largest trademarks in the mass market are Walmart (USA) Marks and Spencer's (United Kingdom); specialized Gap (USA) and H&M (Sweden). The volume of the market for contract production of clothing in terms of sales amounts to 58 – 60 billion USD, and the number of employed people (7 million) suggests that the scale of production utilization under the contract in light industry is enormous.

The importance of production under the contract, both for Ukraine [103] and for the world economy, is also emphasized by the fact that the growth rate of their use in certain industries is higher than the growth rate of the industry itself (Fig. 2.9). For greater clarity, the figure shows exactly those industries in which contractual relationship in the form of contract production are intensively used.

In the field of electronics in 2015, the increase was only 2.6 %, while the use of production under the contract in this area increased by 15 %. In light industry, namely in the field of clothing production, the increase in production under the contract was only a few percentage points higher than the growth in the industry. This trend is due to the fact that the production of clothing for a long time uses a subordinate production, and the market is saturated and highly competitive. The use of contract production varies considerably across industries. For example, such activities as the production of toys and sports goods, electronics and the automotive industry are the main users of contract production services, outsourcing 50 % of the cost of production of the value of goods sold. On the other hand, in such industries as pharmaceuticals, subordinate production is relatively recently used, and still occupies a small percentage relative to sales [86].

Table 2.8 Indicators of the use of production under the contract by the main owners of clothing and footwear brands in 2015

Brand	Trade turnover	Number of supplier countries	Number of factories suppliers	Main production bases/other information
1	2	3	4	5
Christian Dior (includes LVMH) (France)	25 459	–	–	The use of subcontractors for fashion and leather products amounted to about 43 % of the cost of Christian Dior sales in 2010. About 70 % of Christian Dior products come from Europe (France, Italy and Spain), Asia ~20 %, North America ~5 %, and the rest ~5 %.
Nike (USA)	19 083	46	–	All shoes are manufactured by a contractor outside the United States. In 2010, contract factories in Vietnam, China, Indonesia, Thailand and India produced approximately 37 %, 34 %, 23 %, 2 % and 1 % of the total number of NIKE shoes, respectively. NIKE also has production contracts with independent factories in Argentina, Brazil, India and Mexico to produce shoes for sale, mainly in these countries. Almost all NIKE clothing is produced outside the United States by independent contract manufacturers in 33 countries of the world.
Adidas Group (Germany)	14 894	69	1230	Adidas serves several suppliers in many locations. Most suppliers are located in Asia in countries such as China, India, Indonesia, Thailand and Vietnam.
H&M Hennes & Mauritz AB (Sweden)	14507	30	1693	H & M serves several suppliers in many different locations. The brand company works with about 675 suppliers in about 30 countries, mainly in Asia and Europe. About 660 factories in East and Southeast Asia, 580 in the EMEA region and more than 400 in South Asia producing for H & M.
The Gap Inc (USA)	14197	–	728	Gap makes extensive use of contract production, has several contract suppliers based in different countries. Gap's contract factories are located in South Asia (188 plants), China (186), Southeast Asia (180), North Asia (57), Mexico, Central America and the Caribbean (39), North Africa and the Middle East (20) Europe (20), the United States and Canada (18), South America (14) and sub-Saharan Africa (5).

Continuation of Table 2.8

1	2	3	4	5
Inditex SA (Spain)	13336	—	—	About 599 suppliers in Europe, 480 in Asia, 94 in Africa and 51 in America, manufacturers for Inditex.
VF (USA)	7143	60	1500+	In 2010, about 66 % of VF products were outsourced; 51 % of suppliers from Asia, North America (18 %), Central and South America (16 %), Europe (12 %) and Africa (3 %).
Polo Ralph Lauren (USA)	5019	—	—	In 2010, the United States produced less than 2 % of the dollar value of a branded product, and more than 98 % of the dollar produced outside the United States, mainly in Asia, Europe and South America.
Puma (Germany)	3530	45	351	Most of Puma's contract suppliers are located in Asia. China and Vietnam are the main sources of supply in addition to Indonesia, Cambodia and Bangladesh.
American Eagle Outfitters Inc (USA)	2991	20+	450+	Brand company does not possess or does not exploit any production capacity. Its branded products are manufactured by third-party contract manufacturers, which are located in more than 20 countries.
Benetton (Italy)	2925	—	—	Benetton has a network of contract suppliers in different countries: China, India, Thailand and Turkey. Three main sources of supply for Benetton China; Southeast Asia (Thailand, Cambodia, Laos GDR, Vietnam, Indonesia) India.
Hugo Boss (Germany)	2241	—	—	Hugo Boss has its own production facilities and transfers a significant part of the production processes to third-party suppliers. About 76 % of the complete product line is produced by independent suppliers. About 51 % of its products are produced in Eastern Europe, 27 % in Asia, 11 % in Western Europe, 9 % in North Africa and 2 % in America.

Source: compiled by the author on the basis of [76–85]

The nature and origin of the participants in the contractual relationship, the geographical distribution of operations within the contractual relationship, their scale and concentration points depend on the industry. For example, in the field of electronics and IT-BPO services (information technology and business process outsourcing) of TNCs, which are leaders in their industry, widely spread their activities, placing assets in a relatively small number of locations around the world, and in such industries as clothing and shoes reign polar situation: small firms place their assets

in low-cost locations and have a wide geographical distribution [87]. From 10 cities that are leaders in contractual relationship and occupy a stable position and 10 cities belonging to the so-called new growing cities, one sixth of the cities with a permanent position, to which production processes are actively outsourced, belong to India, and growing cities – in China and South America.

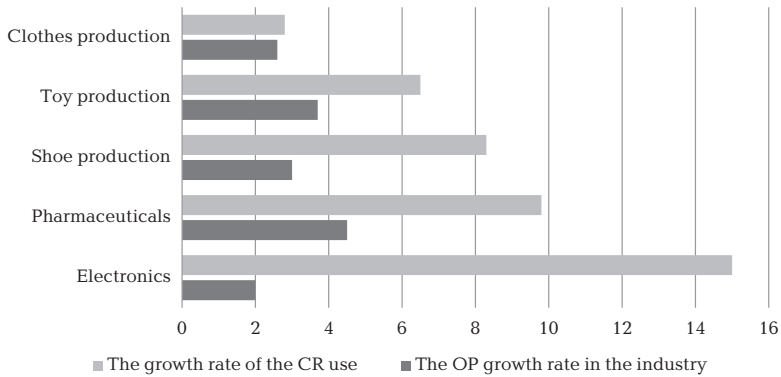


Fig. 2.9 Ratio of growth rates of total industry production and sales volumes within the framework of production under an agreement in certain industries, 2015

Outsourcing can't be called a completely new phenomenon in the global and domestic business practice. Most researchers agree that outsourcing is one of the most developed forms of industrial cooperation, which became widespread and rapidly developed in the second half of the 20th century [88]. So in Japan, at the beginning of the 80s, the share of small firms working on outsourcing schemes was 65 %, and in the electronics industry, the main branch of the Japanese economy, this figure reached 86 % [89].

Outsourcing services began as an «onshore» activity in the field of information technology in the 1990s, but quickly moved to offshore markets, especially in advanced economies and countries in transition. The separation mechanism for production and related services resulting from the revolution in information and communication technology (ICT) has accelerated the spread of outsourcing and offshoring for various business processes and other knowledge-related processes as market research, business analytics and R&D [90].

According to the Sign Up for Free Basic Account, the global outsourcing market during 2000 – 2012 gradually grew, and in 2013, compared with 2012, decreased by 16.2 billion USD or 16.35 % [92]. The main reason for the decline in market value was another wave of the global crisis, which led to a decrease in the cost of outsourcing contracts. In 2014, the market showed

significant growth and reached an unprecedented level of 104.6 billion USD from 2000, which is 25.3 % more than the previous year. However, in 2015 and in 2016, the market began to rapidly decline and reached the level of 76.9 billion USD, which is equal to the value of 2006. The dynamics of the outsourcing market in the world are shown in Fig. 2.10 [91].

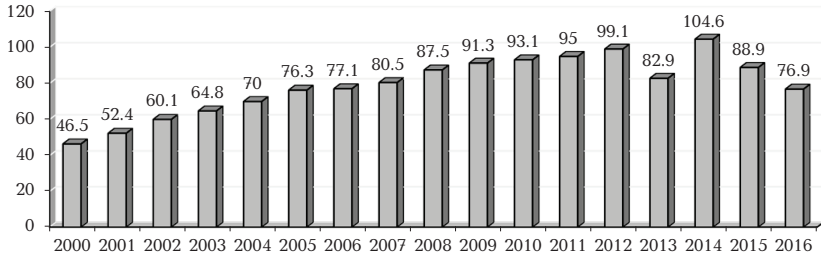


Fig. 2.10 The volume of the global market for outsourcing services, 2000 – 2016, billion USD

ISG Information Services Group provides annually statistics on the number and cost of outsourcing IT-BPO contracts in the world (contracts with an annual value of at least 5 million USD) are taken into account. In 2016, the total number of contracts amounted to 1077 contracts, and their value decreased by 28 % to 115 billion USD, while the average annual value of contracts decreased by 51 %. In 2016, 89 % of the contracts signed were for IT and only 8 % for BPOs; at the same time, the number of signed IT contracts increased by 32 %, while BPO decreased by 29 %. The main markets for outsourcing IT-BPOs are the USA (65 %), the United Kingdom (9 %) and Australia (4 %) [93].

According to various estimates, in the USA about 60 % of enterprises use the services of professional contractors, and about 45 % in Europe. According to a study by Yankelovich Partners, conducted in 14 countries, 63 % of respondents confirmed that they transferred one or more non-core functions to the management of contractors. Of those who performed outsourcing, 84 % were positive and stated that they were satisfied with the work of outsourcing companies [94]. According to the Industry Week's annual survey by IW Census on Production, 44.7 % of US production companies actively use the services of third-party specialized companies for transportation. Also, half of the companies partially use outsourcing equipment maintenance, the production process itself [93]. Among trade companies, this figure is even higher. In the United States, up to 80 % of retail chains transfer various functions to outsourcing [94].

According to the THOLONS rating [95], in 2016, the first and third places in terms of outsourcing development were occupied by India –

Bangalore and Mumbai, second – the Philippines from Manila; from fourth to sixth place also belongs to India. The regions where outsourcing is faster and better developed are Southeast Asia, Eastern Europe and South America. In 2016, the following countries have the greatest influence on the development of the market for outsourcing services: countries – 47 %, India – 21 %, China – 7 %, Great Britain – 5 %, Russia – 4 %, France – 2 %, Denmark, Ireland, Mexico, the Netherlands, Brazil, the Philippines, the Czech Republic, Switzerland, Malaysia, Argentina, Belarus, Canada, Sri Lanka and Sweden – 1 % each. Knowing about the main outsourcing centers, it is necessary to consider those cities in countries that are desirable for outsourcing activities, they include: Argentina, Bulgaria, China, Egypt and the Philippines.

Annual Report A. T. Kearney [96; 97] as one of the leading reports, aims to identify the main outsourcing locations by three main indicators: financial attractiveness, skills and accessibility of the workforce, as well as the business environment. Indices are evaluated on 38 indicators and show the countries that are best suited for outsourcing IT-BPO services. A global rating of outsourcing attractiveness also provides an opportunity to shed light on the geographical distribution of CR in terms of IT-BPO.

According to the 2016 Report, the following countries are among the top ten countries in terms of the attractiveness of outsourcing: India, China, Malaysia, Brazil, Indonesia, Thailand, the Philippines, Mexico, Chile, Poland. India continues to lead the Index. As the undisputed leader of the index, India offers the depth and breadth of a skilled workforce with English, which no low-skilled labor country can offer. There are currently 200 multinational corporations in India, and 1.1 million workers in BPO. At this stage, 500 companies offer outsourcing services in 35 languages for companies in more than 66 countries. Hyderabad has recently risen to a new level and today is home to Facebook, Microsoft and Qualcomm. Information sources indicate that Apple, Amazon, Uber and Google are launching their second largest development centers outside the US in this particular city [98].

China occupies a stable position in the ranking, although the country in 2016 lagged behind India due to the downgrade of its business environment. In 2016, Apple opened research and development centers in Shenzhen and Beijing. VXI Capital, a BPO firm with significant operations in China and Central America, was acquired by The Carlyle Group, an American private joint-stock company, in 2016, indicating a growing interest in the Chinese BPO market from international players.

Malaysia is in third place, which it took from the beginning of the index in 2004. The country is developing in the categories of skilled labor and accessibility, but its decline in such indicators, included in the World Bank Doing Business report, is worrying. The country is increasingly becoming a privileged place for gaming and animation services, and BPO providers are expanding operations to take advantage of growth in the Asia-Pacific region [98].

The most popular locations for outsourcing services in developing countries (in terms of leading firms from developed countries and local companies) are still in Asia. Three countries, India, the Philippines and China, accounted for about 65 % [99] of global export earnings associated with IT-BPO services in 2015, partly due to the benefits of local development, such as specific language and IT skills, low labor costs and information-communication infrastructure. However, the industry is expanding to countries such as Argentina, Brazil, Chile, Czech Republic, Egypt, Morocco and South Africa. Unlike contract production, service outsourcing is tied to locations and the bridge through the need for skilled workers and communications [98].

The franchise formula is used in many sectors and takes many varieties. A significant sector of the economy, where franchising is used, is retail trade, restaurant business (most often fast food restaurants), hotel business, business services, and other types of services from educational to personal care services. In developed countries, the share of high value-added services is greater; in the USA, for example, franchising for the provision of personal business services reaches 37 % in the structure of franchising. The opposite situation is observed in developing countries: here the most common is microfranchise (one person business) and franchising services at a low content of added value. For example, in South Africa, the main franchise is a fast food restaurant with a 25 % share in the franchise structure, followed by a 22 % franchise in low value-added goods retail. A similar situation exists in India: the retail franchise sector is 32 %, and the fast food restaurant franchise is 16 % [14].

Total sales in the framework of franchising all over the world in 2015 reached 2.5 billion USD, of which 330–350 billion USD relates to contractual arrangements. The share of foreign franchises on the market of a country is significantly different. In the most developed markets, the share of home franchises reaches 80–90 % of all franchises, however, and in some growing markets, franchising has reached a mature stage. In Brazil, for example, a foreign franchise network represents only 10 % of the total number of franchises, and the 10 largest and most profitable franchises in this country are representatives of the «home» franchise. Despite this, it is the international franchise that is the driving force in the development of franchising in developing countries. In most African countries, with the exception of South Africa, the number of foreign franchises reaches 80 % of their total number, while at the same time in growing markets such as Mexico, Russia and Turkey, their share is within 30–40 percent [100]. Table 2.9 presents indicators of international contractual relationship in the context of cross-border franchising for 2015.

The largest global franchise companies (franchisees) originated in developed countries. Almost all of the top 15 global franchisors come from the United States, excluding one company from Japan, Canada and the United Kingdom (Table 2.10). Most of these companies are fast food chains

such as McDonald's (USA) and Pizza Hut (USA). Companies that have been mentioned outside of this group represent common hotel chains including 7-Eleven (Japan) and InterContinental (United Kingdom).

Table 2.9 Indicators of international CR in the context of cross-border franchising, 2015

Region/country	Fran-chise systems* units	The number of represen-tative offices, thousand units	Sales, billion USD	Number of em-ployed, thousand people	The share of cross-border representative offices in their total number, %
World	30000	2640	2480	19940	15
Developed coun-tries	12200	1310	2210	12400	10
Europe	7700	370	340	2830	20
Japan	1200	230	250	2500	5
USA	2500	630	1480	6250	5
Developing coun-tries/transition economies	17400	1330	270	7540	30
Africa	1600	40	30	550	70
Latin America and the Caribbean	3800	190	70	1810	20
Asia	11200	1070	170	4810	25
Southeast Europe	800	30	5	370	50

Source: compiled by the author on the basis of [100]

* This refers to the total number of registered franchises operating under the same name and in one format, for example, the McDonald's franchise system

Table 2.10 shows that the most popular franchise packages were developed in the USA, McDonald's is in first place with sales of 70.6 billion USD and internationalization level of 56 % (the ratio of the number of franchises abroad to their total number) covering 117 countries. KFC ranks second in terms of country coverage, the internationalization rate is 59 %, the total number of franchises is 1,500 less than the number of home branches of the McDonald's franchise, and gross sales differ four times. The highest level of internationalization in the company 7-Eleven – 82 %, despite the fact that it works only in 15 countries of the world (9 of which are developing countries), and the total number of branches is even greater than the leader of the rating. As we see, the scope and country of origin significantly influence the franchise strategy of the company. Despite the various indicators of franchise activity, McDonald's, KFC, 7-Eleven are in the top three of the most successful franchise systems in the world.

Table 2.10 Top 15 global franchise systems distributed by revenue, 2015

Brand	Country of origin	Gross sales, million USD	Total number of offices	Office in the country of origin	International offices	Internationalization degree, %	Number of covered countries	Number of covered developing countries and transition economies
McDonald's	USA	70693	31967	13918	18049	56	117	77
7-Eleven	Japan	53700	35603	6378	29225	82	15	9
KFC	USA	17800	12459	5166	7293	59	109	75
Subway	USA	12900	30257	21881	8376	28	98	60
Burger King	USA	12789	11925	7534	4391	37	76	60
Ace Hardware	USA	12500	4630	4410	220	5	70	34
Pizza Hut	USA	10400	11068	6119	4949	45	95	90
Circle K Stores	Canada	9148	7077	3324	3753	53	8	6
Wendy's	USA	9000	6630	5905	725	11	47	35
Marriott Hotels, Resorts & Suites	USA	8539	531	348	183	34	72	57
Hilton Hotels & Resorts	USA	7700	526	253	273	52	76	40
RE/MAX	USA	7500	6552	3745	2807	43	98	75
Taco Bell	USA	7000	5345	5142	203	4	21	10
Blockbuster	USA	6200	7405	4585	2820	38	21	12
Holiday Inn	Great Britain	5840	1353	920	433	32	100	80
Total of the top 15	...	251709

Source: [101; 102]

As an alternative way of accessing the international market, international franchising can be a prototype for brands from developing countries that will grow internationally (including as leading franchisees for leading TNCs) without large investments. For example, in Brazil, 68 domestic brands – about 5 percent of the total number of national franchise networks – are internationalized and are expanding to about 50 countries around the world through franchising. Similarly, franchise companies based in South Africa opened outlets in neighboring countries across South Africa.

In addition to contract production, outsourcing services, franchising, mentioned above, there are other CRs – such as management contracts and contract farming – for which the overall scale is difficult to estimate (reliable data are often not available), but they are nonetheless essential and important from the point of view of development. In the case of cross-border management contracts, UNCTAD estimates sales of 100 billion USD in the

eclectic range of hospitality industries to infrastructure services, such as electricity and water distribution. The element of contract management in infrastructure is often a sub-element of a more complex transaction.

Despite the fact that there is no single indicator of the overall scale of cross-border contract farming, in terms of its impact on development, it is widespread. TNCs use contract farming in more than 110 developing countries and countries with economies in transition, and this is due to a wide range of agricultural commodities. This CR type is an important feature of many global TNC production networks, including food and beverages, biofuels and retail (supermarkets). Contract farming plays an important role in supporting agricultural production and related activities.

The modern practice of using contractual relationship allows to identify the main trends of their development.

1. Dynamic build-up over the last decade of the absolute volume of contractual transactions in the global production cycle and the complexity of their species structure. The growth rates of production volumes in the CR format in individual industries exceed the growth rates of production of these industries.

2. The use of contractual relationship has found the greatest application in the practical activities of TNCs, as evidenced by statistical data indicating that 10 % of TNCs trade is due to the CR mechanisms. The practice of using CR shows that there is an opportunity for a local executive company to transform into a CR customer with subsequent access to international markets.

3. The high level of volatility and dynamism of trade mediated by international cooperative ties in comparison with trade in capital and consumer goods intended for final consumption.

4. Calls for international practice of companies shows that after a recession, business cycle slowdowns and crises, companies use an aggressive development strategy, when expansion is carried out through contractual relationships, based on unwillingness to invest in new domestic production facilities, on cost reduction and increased possible recession episodes.

5. There is a significant difference between the main indicators of CR depending on the area of their application. The volume of trade, value added and employment in technologically intensive industries are different from those of traditional labor-intensive industries.

6. Now there is no unconditional direct link between the level of socio-economic development of states (developed, developing countries, countries with a transformational economy) and the status of a country in the system of international cooperation (countries of customers or contractors of contractual agreements);

7. Relatively weak geospatial diversification of contractual relationship, while maintaining the current trends in the distribution of «roles»: CR contractors most often come from developing countries; customers are from developed countries.

8. The origin of the participants in the contractual relationship, the geographical distribution of operations within the contractual relationship, their scale and concentration points depend on the industry. For example, in the field of electronics and IT-BPO services (information technology and business process outsourcing) TNCs, which are leaders in their industry, widely spread their activities, placing assets in a relatively small number of locations around the world, and in such industries as clothing and shoes reign polar situation: small firms place their assets in low-cost locations and have a wide geographical distribution.

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Chapter 3

International capital movement and global financial imbalances

The key trend in the development of the world economy at the beginning of the XXI century is the processes of economic globalization, which covered all its subsystems and structural components. Foreign investment is becoming a dynamic form of economic globalization, its main driving force, since the acceleration of international capital movement, primarily in the form of international investment, affects the scale and direction of socio-economic changes in the economies of individual countries and their groups. This is evidenced by the increase in world trade: over the past 50 years, 17 times (and world GDP — 6 times). At the current international securities market, there is a capital of about 20 trillion USD. The annual volume of international loans is about 15 trillion USD, and foreign direct investment is about 500 billion USD, which indicates the real extent of international investment flows.

At the same time, in recent years, the question of the uneven distribution of the effects of globalization and the asymmetric development of the world economy has received widespread coverage in the scientific economic literature. Influential specialists such as the former head of the US Federal Reserve, Alan Greenspan, and his successor, Ben Bernanke, argued that the rapid integration of the international financial system and, as a result, the intensification of international investment over the past decade has played a crucial role in activating and financing global financial imbalances. Therefore, in a narrow sense, we can speak of global financial imbalances in the context of the US trade deficit, which is accompanied by an increase in external debt, and the opposite situation in China and other countries of Southeast Asia.

In a broad sense, the problem of global financial imbalances is related to the largest economies of the world — the USA, China, Japan, the countries of the European Union, first of all Germany. It manifests itself in the unstable dynamics of the rates of major currencies and the value of foreign exchange reserves of different countries. At the same time, trade flows and mutual investments essentially depend on currency, credit and stock risks associated with global financial imbalances. This raises the question of the

relationship between global financial imbalances and international investment flows.

The theoretical assumption about the impact of investment flows on the formation of global financial imbalances is confirmed by statistical data. According to the calculations of OECD experts before the global financial crisis in 2008, the current account imbalance, determined by the sum of the absolute values of the deficits and surpluses of the current account of the countries of the world, gradually grew and reached 5 % of world GDP. In addition, imbalances in the real and financial sectors of the economy are growing in the world: over the past 10 years, the volume of transactions with financial assets (company stocks, government and corporate bonds, loans), relative to global GDP, increased from 261 to 356 %. At the same time, the volume of operations with derivatives grew more actively, the value of which as a result exceeded world GDP by 12 times. All this has become, as is known, to a large extent the condition and reference point of the current protracted global financial and economic crisis.

Thus, the problem of financial imbalances is extremely relevant both for individual countries and for the world economy as a whole. Given the above, a study of the nature of the relationship between the international movement of capital investments and global financial imbalances is necessary to develop countermeasures in the future.

3.1 Genesis of theoretical concepts of international capital movement

In the modern world, characterized by irreversible processes of globalization and transnationalization, the international capital movement (ICM) has become an important economic resource. The rapid growth rates of ICM and the presence of hypotheses regarding their decisive role in the process of successful transformation of emerging economies into market economies, the nature, background and possible consequences of ICM have become the subject of intense scientific interest. The presence of the property of foreign residents often leads polar scientific views on ICM from the symbol of colonialism or imperialism to the key, which makes it possible to solve almost all economic problems, since there is an additional possibility of obtaining resources, and therefore ICM are an important source of funding, especially during crisis periods. In the context of a deep global economic downturn, for many countries of the world, including Ukraine, active participation in the international movement of capital, as one of the effective mechanisms for supporting the activities of domestic enterprises, is especially important. It creates opportunities for technical and technological modernization of both production and the whole world, market infrastructure and the introduction of new methods of management in all areas of the economic mechanism.

A characteristic feature of most studies is their focus on the side of whoever makes such investments, and does not attract. Scientists consider the problem of activating ICM mainly at the macro level, suggesting mechanisms of an institutional and regulatory nature. In addition, their attention is focused on solving such tasks as determining the influence of ICM on key macroeconomic indicators, coordinating the activities of transnational corporations with the state policy of the host country, identifying the relationship between domestic innovation processes and revenues of ICM (Table 3.1).

Table 3.1 Evolution of international capital movement theories

Period	Theoretical approaches to ICM	Authors	Feature
1	2	3	4
XVI-XVII centuries	Mercantilism	T. Mun, D. Hume, J. Law, J. Colbert	The main role in the economy is played by the sphere of circulation, which has been identified as an environment in which capital flows grow due to the profitability of foreign investments
XVII-XVIII centuries	Cameralism theories	L. Sechendorf, I. Becher, F. Hornig	Stimulation of investment activity by the state in the context of purely national interests. Providing significant attention to foreign investment
XVII-XIX centuries	Classical political economy	A. Smith, D. Ricardo, J.-B. Say	Comparative advantages in trade. A. Smith believed that the general depreciation of capital contributes to its free movement. D. Ricardo linked the accumulation of capital with the growth rate of savings. In the process of international investment activity, the surplus of capital moves to countries with its deficit. J.-B. Say considered the export of capital as a potentially negative phenomenon, narrowing consumer demand within the country
XIX-XX centuries	Marxism	K. Marx, F. Engels	Investment is not a function of the rate of return. The volume of investment depends on the size of the profits. Innovation – a means of promoting the action of the main motive of investment
XX century	Marginalism	L. Walras, A. Marshall, T. Wischer	Higher marginal capital productivity. Capital is imported until the rate of return of the recipient countries drops to the level of donor countries, while the import of capital stimulates the development of international trade

Continuation of table 3.1

1	2	3	4
XX century	Neoclassical theory	E. Heckscher, B. Ohlin, R. Nurkse, K. Iversen	Higher relative security factors of production. Economists have found that countries export goods and services, use in large quantities factors that are relatively sufficient in the country, and import other goods and services (that is, those for which the factors in this country are in short supply). Accordingly, foreign investment was attracted to the export-oriented industries of individual countries
Since the second half of the 30s until the early 70s of XX century	Keynesianism	J. M. Keynes, A. Hansen, R. Harrod, J. Hicks, E. Domar, P. Samuelson, F. Perroux	Negative trade balance of the country. The ratio of investment and savings is the most important condition for macroeconomic equilibrium. The main common factor determining the dynamics of savings and investments is the level of household income. The main idea of the theory of Keynes is the need for state regulation of the capitalist economy, in particular the conscious creation of macroeconomic conditions for economic growth through the formation of economic mechanisms for attracting investment in the national economy
Since 60 – 70s. of XX century	Theory of monopoly power	C. Kindleberger, P. Krugman, R. Caves, C. Geimer	Monopolistic advantages are treated as advantages achieved due to advantages in intellectual capital and economic potential. Investments move from one country to another under the influence of the price factor, while the firm, taking advantage of the benefits, can get super profits
Since 60 – 70s. of XX century	Theory of imperfect capital markets	R. Aliber	The key factors in explaining the foreign direct investment model should be the stock market, exchange risk, and market advantages for holding assets denominated in certain currencies
Since 70s of XX century	Monetarism	M. Friedman, W. Eucken	The hypotheses of uncovered and covered parity of interest rates are formulated, according to which the movement of investments is compensated: investment in the national and foreign economies is covered by risks due to the difference in profitability of investments
Since 70s of XX century	Market power theory	S. Hymer, R. Newfarmer, K. Kokouling, R. Sugden	Terms of direct investment – for a successful organization of a network of foreign production, a transnational firm must enjoy certain advantages for local companies in the recipient country

Continuation of table 3.1

1	2	3	4
Since 70s of XX century	Market power theory	S. Hymer, R. Newfarmer, K. Kokouling, R. Sugden	Terms of direct investment — for a successful organization of a network of foreign production, a transnational firm must enjoy certain advantages for local companies in the recipient country
Since 70s of XX century	Theory of perfection of market competition	V. McDougall, J. Kemp, M. Frankel, I. Pierce	Higher interest rate (rate of return on capital)
Since 70s of XX century	Theory of the organization of international production	S. Hymer, A. Lamfalusi, F. Knickerbocker, R. Caves, G. Weiss, D. Cohen	Imperfection of the market. The ability to use and maintain specific or monopolistic advantages of the enterprise
Since 70s of XX century	Theory of the product production life cycle	R. Vernon, R. Stobouch, F. Townseno	Evolution of the product and its manufacturing technology. Extension of the product life cycle
Middle 70s of XX century	Theory of international risk diversification	D. Lessard	The emergence of transnational firms and the direction of direct investment in the creation of their foreign network of enterprises are due to the need to reduce risks through international dispersal of capital, that is, its international diversification
70s of XX century	Theory of internalization	P. Buckley, M. Kasson, R. Caves, A. Rahman	Markets can efficiently locate the factors of services and goods in accordance with natural and government-determined external (non-market) effects. International corporations are trying to form their domestic market for the exchange of goods and services, where direct investments are made
Since 70s of XX century	Theories of oligopolistic reaction	F. Knickerbocker	An attempt to explain the causes and directions of direct investment due to the behavior of companies within the framework of oligopoly. For oligopolistic industries there is a tendency to simultaneously enter the foreign markets of many enterprises
90s of XX century	The concept of investment development paths	J. Dunning, R. Narula	Growth patterns of direct investment in countries at different levels of industrialization are being unified

Source: Compiled by the author according to: [4, 7, 12, 18, 18, 22, 31, 55]

In the middle of the 18th century, the rapid development of the scientific thought of the school of classical political economy was also observed, from which the theory of international capital movement originated. A. Smith believed that the general depreciation of capital contributes to its free movement. Since at that time there were restrictions on the export of money capital in developed countries, the rates of their national currencies declined, respectively, prices rose and as a result of the rise in prices for imported goods, gold and silver were exported from the country. D. Ricardo linked the accumulation of capital with the growth of the savings rate [29]. In the process of international investment activity, the surplus of capital moves to the countries with its deficit, due to which the problem of overproduction does not threaten only one country. J.-B. Say considered the international movement of capital in conjunction with monetary and investment policies in the country. Capital outflow itself was viewed as a potentially negative phenomenon, narrowing consumer demand within the country [49].

J. Mill for the first time began to explore the international movement of capital as a separate phenomenon in international economic relations. Although in his well-known, he repeatedly reissued the textbook «Fundamentals of Political Economy» (1848), he devoted only a paragraph to the export of capital, his thoughts proved fruitful and the rate of capital accumulation [29, 76].

In the first question, relying on the Ricardo theory of comparative advantage, Mill concluded that by providing loans to foreign countries or establishing there, with the help of the capital of their entrepreneurs, the production of export goods, a country that exports capital contributes to the expansion of its foreign trade. Significant lending to foreign buyers is advisable to maintain if their solvency is limited, and the creation of production facilities abroad to meet the needs of the capital of the exporting country mitigates the increase in the cost of raw materials, materials and semi-finished products, and reduces the shortage of inexpensive finished products.

As for the second question, Mill indicated that capital moves between countries due to the difference in the rate of profit, which in the most capital-rich countries tends to decrease, as D. Ricardo argued. In this matter, Mill envisaged that part of the theory of the ratio of factors of production of Heckscher-Ohlin, which deals with the movement of capital as a factor of production. Moreover, Mill emphasized that the difference in the values of the rate of profit must be substantial in order to cover the risk that foreign capital has in a foreign country. Thus, he wrote that «countries are still considered barbaric, or such as Russia and Turkey, where the process of civilization is just beginning, capital migrates only when it comes to obtaining very high super-profits» [56].

At the same time, J. Mill expressed the idea that investing capital abroad counteracts a decrease in the rate of profit in the country exporting capital and inhibits the growth of excess (in terms of income premises)

capital. The over-accumulation of capital (in the form of excess production capacity, excess stocks of goods, very low lending rates) poses a threat to the economic circulation [62].

At the end of the XIX century, the postulates of the marginal school of economics dominated in the scientific world. Such scholars as L. Walras, A. Marshall, T. Vischer considered foreign investment at the moment of equilibrium in a particular country and its mutual relationship with the world market. According to T. Vischer, foreign investments are quite mobile, and their import or export violates the constancy of the monetary indicators of the national economy. According to marginalists, the main motive for the movement of capital is the marginal rate of return [29]. That is, part of the capital is also exported, which contributes to a decrease in the rate of profit within the country, while the import of capital, in their opinion, stimulates the development of international trade.

In the period 1880 – 1930, the Second Industrial Revolution took place: humanity began to use electricity in industrial production, the development of heavy engineering and electrical engineering industries began, and many discoveries were made in the field of chemistry and physics [70]. So, the intensive growth in the production of resource-intensive industries has also changed the views of investors – now the capitalists have sought to invest their capital in countries that are more endowed with resources in a certain area. Such trends have also received theoretical foundations from neoclassical economic theory.

During the eighteenth and nineteenth centuries, science, in general, formulated the basic principles of the theory of investment, providing for the self-regulation of investment activities both within the national economy and in the global space. The most significant factors of self-regulation were considered the rate of return and interest rate. A necessary condition for the growth of investment was considered the growth of income in the donor country of capital, especially those incomes that are transformed into savings and new investments.

Economists such as E. Heckscher and B. Ohlin found that countries will export goods and services, use a large number of factors that are relatively sufficient in the country, and import other goods and services (that is, those for which the factors in a given country in short supply). Accordingly, foreign investment was attracted to the export-oriented industries of individual countries. However, in the long run there is a tendency to equalize prices for factors of production, which is realized in the process of international exchange and migration of capital [29].

Estonian Ragnar Nurkse (1907 – 1959) and Austrian Gottfried von Haberler (1900 – 1995) emigrated to the United States, and Dane Karl Iversen (born 1948) completed the formation of a neoclassical direction in the theory of international capital movement. So, R. Nurkse created various models of international capital movement, linking in them the production

of goods, foreign trade, the demand and the position of capital inside the country, its export and import. K. Iversen put forward the proposition that different types of capital have different «marginal international mobility» (primarily because of the costs of transferring capital, that is, transactional). His other position was that different countries and regions have different levels of risk, explains the fact that one and the same country can actively import and export capital (as an example, he cited the United States, which until the World War I was an importer of capital in relation to Western Europe and exporter with respect to Latin America) [55].

The neoclassical direction provided a theoretical basis for the analysis of the international movement of loan capital, allowed to explore some aspects of portfolio investment, proved approaches to the study of capital flight. However, for direct investment this direction is not sufficiently applied: one of its main prerequisites – the prevalence of perfect competition in the world – does not allow followers of neoclassical theory to analyze those firm (monopolistic, from the point of view of economic theory) advantages on which these investments are largely based. The scientific achievements of neoclassical science are of little use in the study of those aspects of portfolio investment related to market failures.

The sharp jump in the development of industrialized countries due to fundamentally new production relations in these sectors of the economy led to a deepening financial imbalance between savings and investments. Keynesians, which at the beginning of the 20th century were the leading economic school, believed that the balance of investment and savings was the most important condition for macroeconomic equilibrium [56]. Excess savings over investment causes, according to scientists, to economic recession and unemployment. In such a situation, part of the savings rushes beyond national borders. Thus, if the balance of payments is positive, that is, the export of goods exceeds their import, the country can become an exporter of capital. In addition, J. M. Keynes, E. Domar and R. Harrod believe that foreign investment, like all other economic processes, should be under state control [49].

In the economic and mathematical model of the influence of export and import of capital on the dynamics of national income of the American neo-Keynesian of Austrian origin, Fritz Machlup (1902–1983) showed that in an exporting capital country, a reduction in national income due to a decrease in domestic investment due to the export of capital can be compensated stimulated export of capital (although he meant that capital is exported to countries that buy large quantities of goods from the capital of the importing country and I do not always). In addition, F. Machlup added to the neo-Keynesian theory of international capital movement, the impact of capital imports on the domestic economic situation of the recipient country, and its dependence on the forms of capital flow – the most favorable direct investment, but also the import of portfolio investments supports the activity of the local market of papers [56].

R. Harrod, in his model of economic growth, emphasized that the lower the rate of economic growth of a country rich in capital, the stronger the tendency to export capital from it. Another author of this model, E. Domar, clarified that the dynamics of the export of capital from the country is stimulated by the influx of income from previously exported capital into the country.

An important scientific reserve is the ideas of Karl Marx, who argued that his capital would be exported in excess to the capital of the country. Under the excess capital, he (following Mill) understood such capital, the use of which in the country would lead to a decrease in the rate of profit. Through the export of goods and capital, this surplus of capital (both real and potential) is exported abroad. Opportunities for the export of capital on a large scale appear after most countries are drawn into the orbit of world capitalism and the creation of preconditions in them (primarily infrastructure, although often directly foreign capital creates this infrastructure) [54]. The active growth of monopolies at the end of the XIX century stimulated the export of capital, and therefore V. I. Lenin even called it one of the main features of the modern (imperial) stage of capitalism.

In the interwar period, the accelerated development of the engineering and chemical industries allowed large companies to gain sustainable advantages in many world markets. Trends in the monopolization of markets by companies that in many cases were supported by the state also influenced the scientific thought of that time. In the second half of the fourth investment cycle (1930 – 1970), several theories of international capital flow were developed, the main motive in which was the search for markets where the company would have monopoly market power [30]. Hymer, Kindleberger, Caves and others viewed monopoly market power as patented advanced technology, a trademark, unique marketing and management skills, or access to cheap sources of finance [18]. In addition, according to scientists, the firm can use its monopoly advantages abroad only if the policy of the host country allows it to do so.

In the 1960s, the processes of concentration of capital and the development of technological progress intensified, which coincided with the growing role of transnational corporations in the global economy. It was found that existing theories of international investment activity are insufficient to explain changes in the nature of capital movements. This led to the need to interpret the investment flows in a different way, namely from the perspective of transnational corporations. The unprecedented scale and intensity of the development of high technologies was made possible by the pooling of resources on a global scale as a result of the emerging from a large number of disparate firms to networks of interconnected and interconnected companies, working closely in the field of research and development, product quality control and innovation planning. The logical assumption is the fact that the consolidation of the production forces was accompanied by the intensification of international investment processes and the change in

the vector of their flows in TNCs. In the context of the comprehensive expansion of TNCs, economics has sought to explain the redistribution of investment resources among individual countries and sectors of the economy. In particular, within the framework of the theories of the firm, a significant number of concepts and hypotheses were developed regarding the placement and attraction of foreign investments.

One of the first who developed a theoretical approach to the explanation of international capital movement through the organization of international production was Hymer (Table 3.1). His theory is that companies that work abroad must compete with local firms that are in a better position in terms of culture, language, legal system and consumer preferences. In addition, foreign exchange risks also affect foreign firms. These shortcomings must be compensated in one form or another by market power in order to ensure the profitability of foreign investments. Sources of market power – special advantages from the point of view of Hymer or monopoly power according to Kindleberger's theory – can be patented for advanced technologies, trademarks, marketing and management skills, economies of scale, and access to cheap sources of finance. According to Hymer's theory, the country of the recipient gets a technological advantage along with attracted investments. The essential feature of this theory is that it assumes that these advantages are effectively transferred from one structural unit of a company to another structural unit of the same company, regardless of whether they are located in one country or in more than one. That is, in the sixties of the twentieth century, foreign investment received modern value and was considered as cash flow between enterprises in order to locate production in countries with more favorable conditions.

It is at this time that the first official interpretation of foreign investment appears. Association of International Law at the 1966 Helsinki Congress stated that the concept of foreign investment as a legal category is a new concept, which is revealed when solving a complex of legal problems that arises when making foreign investments between parties to investment legal relations [50]. By this time, N. Voznesenska notes, there is no uniform definition of foreign investment both in international practice and in the national legislation of different countries, partly explained by the variety of forms and types of foreign investment, as well as their objectives. There was no unanimous opinion about the main thing – all income from one country to another is foreign investment [69].

Kindleberger (see Table 3.1), extending the work of Hymer, advanced his FI theory, based on the monopolistic power of the company. He argued that the benefits that TNCs enjoy can only be useful if the market is imperfect. The advantages described by him can be presented in the form of advanced technology, managerial experience, patents, etc. These advantages, as a rule, encourage firms to invest in other countries in order to fully use them instead of exchanging them with potential foreign competitors.

For the recipient of investment, it is a tool to increase the competitiveness of the industry and improve the quality of goods.

P. Buckley and M. Casson offer a slightly different FI explanation, focusing on intermediate materials and technology. They shifted the focus of foreign investment theory to the industry level. Scientists analyzed the activities of TNCs based on the provisions developed by Coase, their theory became known as the theory of internalization, because it is associated with the creation of TNCs. The theory of internalization is based on three postulates:

- 1) firms maximize profits in the market, which is characterized by imperfect competition;
- 2) if the markets for intermediate goods are imperfect, there is an incentive to circumvent them by creating a domestic market (internalizing the company's activities);
- 3) the internalization of markets around the world leads to the emergence of TNCs.

Thus, the provisions of the theory of internalization point to the main prerequisites for international capital movement – reducing the level of transaction costs associated with the cross-border movement of the components of a product during its production. Accordingly, costs are reduced by creating a single integrated company that is able to develop the final product from the raw materials.

The eclectic (or OLI) paradigm, developed by the British economist J. Dunning, is still considered the pearl of the theories of foreign investment. The scientist proposed several conditions under which the firm will make foreign investments [12]: the advantages of ownership by (O) the advantages of location (L); advantages of internalization (i).

The advantages of ownership are firm-specific and are expressed in tangible and intangible assets. These include patents, technical knowledge, managerial skills, access to or control of raw materials, advanced technologies, brand and marketing skills, as well as economies of scale. The advantages of the location of various countries, in turn, play an important role in determining which country will be the host for a multinational corporation and can be represented as access to protected markets, favorable tax regimes, lower production and transportation costs, low-cost materials for production, low risk, political, legal and cultural conditions, etc. And the advantages of internalization contribute to the fact that it becomes more profitable for a firm to carry out internal operations between affiliated companies than to depend on foreign markets (both suppliers and consumers). So, the main contribution of Dunning's eclectic paradigm to economic science in the field of AI was the unification of several complementary theories, as well as the definition of a set of factors affecting the activities of TNCs [12].

The result of the criticism of the eclectic theory was the «investment cycle theory,» which implies a relationship between the level of a country's economic development, measured in terms of GDP per capita and its

international investment position – net foreign investment per capita. The main hypothesis is that there is a dynamic interaction between the volumes of foreign investment and the economic structure of the country. In contrast to the earlier paradigm, the new theory accepts the fact that the government can influence the economic situation of the country through its policies, thereby affecting II flows and the advantages of ownership of Russian companies.

Since international production is always associated with currency risks, a well-known researcher of global financial crises R. Aliber presented his theory of foreign investments based on the relative strength of various currencies, namely, differences in exchange rates in the host and source countries [4, p. 19]. He suggested that weaker currencies, compared to the stronger currencies of the investing countries, had a higher potential for raising capital. Aliber tested his hypothesis and obtained the result on statistical data, in terms of FI volumes from the USA, Great Britain and Canada. The main disadvantage of this theory is its irrelevance for less developed countries with very imperfect or non-existent capital markets and with sufficiently regulated exchange rates. In addition, the relevance of the theory can't be confirmed by such processes as investing TNCs from developing countries (weak currency) in developed countries (strong currency), which have become an indispensable trend of recent decades. A very nontrivial approach to explaining capital outflows from Asian developing countries was the theory of the Japanese economist Kiyoshi Kojima. He expressed the opinion that more efficient local firms are pushing out less competitive firms from the local market. As a result, economically weak firms direct their activities abroad, especially to other developing countries. Combining the theory of foreign investment with theories of international trade, Kojima concludes that the firm's three main motivations for foreign investment in the host country are: resources, labor, and the market. So, when a company invests in order to increase and ensure the import of goods that the national economy lacks or is produced in this country at a higher price, this is considered as foreign investment oriented towards trade or natural resources. Investments made for the use of cheap labor, known as labor-oriented. And the implementation of investments in order to capture a large market or overcome trade barriers is called «market-oriented».

An outstanding American scientist Helpman and his colleagues tried to link international trade and vertical, as well as horizontal FI. The Helpman model is based on differences in the availability of factors of production in different countries, one of which is chosen by the vertical TNC to start creating a production center. The model claims that firms are more likely to choose minimal layout costs in order to maximize their profits. According to the researcher, differences in the availability of production factors are related to the relative size of the country [18]. Thus, the theory explains the simultaneous existence of inter-branch trade, intra-branch trade, and trade within a single firm. The theory also provides the basis for the hypothesis

that the trans-country penetration of TNCs and the corresponding vector of international capital movements are the result of barriers to trade, such as transportation and tariff costs. In another article, Helpman and co-authors investigated the question of choosing a company between export and horizontal FIs. Scientists have developed a model of international trade in which firms choose among three alternatives: serving the domestic market, exporting or implementing FIs to meet the needs of foreign markets based on their productivity. Helpman and his followers argued that each industry is characterized by heterogeneity, and therefore the performance of firms will be different. From this it follows that only the most productive firms will have the resources to focus on the external market through FIs, while less productive firms will be represented on the external market through exports. At the same time, firms that invest abroad will do it as long as the benefits of preventing transportation costs are greater than the costs of maintaining facilities abroad [18].

T. Ozawa's theory of foreign direct investment and competitive advantage points to the interdependence of economic growth, economic transformation and changes due to comparative advantages, and introduces the Porter variable of foreign investment into the theory of competitive advantages of nations, which characterizes the situation in the national economy [32, p. 35]. T. Ozawa indicates the dependence of changes in the volume of inflows or outflows of capital on the stages of the structural transformation of the economy of the host country. The first stage of attracting capital corresponds to a similar stage defined by M. Porter [68], the stage of factors of production. The next stage is investment promotion, where developing countries use their competitive advantages to attract capital, in particular cheap labor, and stimulate an increase in the production of capital-intensive and material-intensive products. At this stage, developing countries usually attract investment in such sectors of the economy as heavy and chemical industries, construction, and infrastructure development. At the next stage of development, the country attracts investments in capital-intensive sectors of the economy through the introduction of innovations and new technologies. T. Ozawa argues that the higher the GDP per capita, the greater the cost of capital in the form of tangible assets and human capital [32]. According to T. Ozawa's theory, the country's development stages are based on the theory of comparative advantages and explain the process of capital transfusion and the shifting priorities of less developed branches of the economy with low labor productivity in an industry with more diversified production and a higher degree of human and technological costs.

Thus, the mechanism of foreign direct investment can be analyzed at different levels: macroeconomic, mesoeconomic, microeconomic, which determines the different approaches to this process. Macroeconomic theories of internationalization of production focus on the theory of capital movements, international trade, production location, balance of payments

and exchange rates. In contrast, research on processes at the mesoeconomic level is largely based on theories of competitive advantage, the theory of post-industrial organization and information economy, restructuring, and innovation. The microeconomic approach allows to determine the motives of foreign investments related to the organization and restructuring, experience of management and marketing. The application of these approaches determined specific theories of direct foreign investment and transnationalization of production, such as: theories of monopolistic competition, theories of internalization, theories of international competitiveness of the region, macroeconomic theories of development.

The presented theories and models of international capital movements help to understand and explain this economic phenomenon. But for the sake of completeness, an analysis of the motives by which the owners of capital are guided in its export is necessary. Capital moves between countries primarily to maximize profits, but not just for the sake of it. By investing capital abroad, its owner rarely sets as its sole goal the making of profit. For example, in addition to profit, the lender also wants to place its loans reliably, the portfolio investor also needs the liquidity of his assets, and the direct investor is guided by an even greater number of motives related to the protection and security of assets. Thus, based on additional motives, direct investments are often divided into those aimed at access to resources (work, knowledge, raw materials), sales markets, and increasing their own economic efficiency.

One of the most common motives for investors is diversification of assets at the expense of foreign ones. Such diversification (for example, the placement of its assets in both national and foreign currencies) is explained by an even deeper motive – the desire to minimize business risks in general. The same is the need to purchase abroad even less profitable and not always less risky assets, which, however, can balance the risks that exist in the donor country of capital. An example would be the expansion of many global oil companies abroad in countries with less rich than in home countries, fields, and less stable political regime.

Considering the theoretical concepts of international capital movement, the question often arises: why is the outflow and inflow of capital in some countries more and less in others? To answer this question, let's investigate the circumstances (causes, determinants) of the international movement of capital, which should be divided into those that attract foreign capital and those that push domestic capital.

So, the most important determinants that attract foreign capital in the form of foreign direct investment, especially in less developed countries with their high risks, include the following:

- the presence of a significant amount of stocks of economic resources;
- often a significant amount of the domestic market, allowing foreign TNCs with the help of sales (stores) and production (for example, car

assembly) branches in the territory of this country to carry out large sales volumes;

- high rate of return in a foreign country, mainly due to its high rates of economic growth.

These and other similar circumstances are important for foreign capital, often outweighing the disadvantages of the investment climate. As a result, many countries that are developing out of their imperfect investment climate remain among the world leaders in terms of the volume of direct investment inflow, surpassing, for example, Japan with a clearly better investment climate, if we evaluate it only by risk, without taking into account the resulting profits.

Among the factors pushing direct investment from less developed countries, let's highlight the following:

- maturity of domestic companies in a number of industries, such as, for example, in the donor country (for Ukraine – energy, mining, metallurgy);

- deficiencies of the local investment climate, pushing domestic companies to focus on the export of capital, and not on its increase within the country.

The international movement of capital over the course of the development of the global economy is determined by the action of objective factors that are closely associated primarily with the processes of transnationalization of the world economy, long-term business cycles, the conjuncture of commodity markets, services, technologies, and these factors have changed during the evolution of the world economy.

The factors of capital movements in the 18 – 19 centuries were interest rates in different countries. Where the interest rate (the cost of money is higher) and funds were sent, portfolio investment thus prevailed. In the modern globalized economy, the activities of TNCs have come to the fore, the main activity of which is to invest abroad to reduce production costs, which led scientists to develop theories that could explain their economic nature and the reasons for the direct investment movement.

After analyzing the provisions of the theories of international capital movement, it is necessary to conclude that the founders of the classical school of economic theory, Adam Smith and David Ricardo, viewed international trade as an engine of internationalization and integration of the world economy. International trade was seen as the main catalyst for the growth of national wealth. Over time from the 60 – 70s of XIX century, in Western political economy, a completely new direction appeared in theoretical studies of international capital movements, the subject of which were mainly foreign direct investment. ICM theory describes the situation when capital is exported not only for the purpose of providing its production located in other countries with resources, but primarily for the sake of obtaining additional profit through the use of available technological, resource,

managerial, informational advantages that can only be realized in a certain country the recipient. Thus, we conclude that in a couple of the main forms of international economic relations international trade previously played a major role – it was a prerequisite for accumulating funds for investment, whereas in the modern world the situation has changed radically and now, investments are primary.

At the same time, another global trend was observed – a change in the poles of the international movement of capital. By the mid-19th century, developed countries dominated the world economy, including the main investment flows from such countries in Asia, primarily to developing countries. On the contrary, in the last decades the opposite tendency has arisen: production facilities were built, primarily in Asian countries, cause the growth of exports of these countries and, accordingly, an increase in the positive balance of payments. This, in turn, forces countries to invest abroad. Thus, among the countries of net capital exporters, more and more countries of Southeast Asia appear, which until recently were its active recipients. So in the 21st century, there is observed financing of imports of developed countries through investment funds obtained mainly in developing countries. Thus, there is one of the biggest disproportions of our time – the uneven development of groups of countries of the world (developed and developing countries), which creates serious prerequisites for the deepening of structural crisis phenomena.

3.2 Theoretical and methodological foundations of global financial imbalances

The «asymmetry» category, originated in the depths of the philosophical, natural and medical sciences, in economics refers to neological concepts. And in spite of the fact that now this category has already received its scientific «registration», however, there is still no unambiguous, clear and systematic definition and is most often used by researchers intuitively: first, without strict reference to the linguistic semantics of this word; secondly, without clarifying the relationship with a number of closely related categories, such as unevenness, differentiation, polarization, nonlinearity, inconsistency, discreteness, stochasticity, and the like. According to J. Stoliarchuk [74, p. 37–38], the essence of the category «asymmetry» can be defined as a general form of the development of matter in space and time, and its economic meaning as a general form of global economic development and a tool for identifying the system of its contradictions. As such, the economic asymmetry with a source of continuous development of the global economic system and the emerging from one qualitative state to another, orients the subjects of the world economy to resolving the contradictions of global economic development for the institutional system and plays, therefore, the driving force of social progress.

A well-known Hungarian economist, academician Szentes, in his work [36] emphasizes that one of the main obstacles to the elimination of deprivation, fragmentation and marginalization of the modern world is the asymmetric interdependence between the «center» and «periphery» and highlights The following main elements of the asymmetric interdependence of developed countries and developing countries:

- 1) asymmetric patterns of international trade in goods and services;
- 2) asymmetric property relations, which are the result of FDI;
- 3) asymmetric relationships that develop as a result of labor migration and the provision of «technical assistance»;
- 4) asymmetric interdependence in international financial and monetary relations;
- 5) asymmetric interdependence in technology transfer;
- 6) asymmetric interdependence in information flows.

Obviously, without eliminating these barriers in the relationship between the «center» and the «periphery», all projects of global modernization are doomed to fail and remain good wishes for the countries of the «second» and «third» world.

To achieve the goals of sustainable economic growth of the world economy, increasing interdependence and integration of national economic systems and markets is important. Considering that the immediate prerequisites for integration are, in particular, the proximity of the levels of economic development and the degree of maturity of a market economy, it is the most durable and efficient if the developed countries are united, while the integration of developing countries is often just a formal procedure.

Speaking about international economic cooperation, it is also important to remember that it is the spread of interconnections between the countries of the world through export-import operations, capital flows, labor migration, etc. and the formation of a corresponding interdependence of economies of different countries at the global level increases the likelihood of both global and local financial and economic crises, one of the most important components of the mechanism for the spread of which are financial imbalances. Considering that financial imbalances in modern conditions are among the most important risks characterized by threats of catastrophic consequences, the governments of all countries should make maximum efforts to level their negative impact.

Turning to the theoretical foundations, it should be noted that the economic category of «financial imbalance» is quite new, so the scientific discussion about its interpretation is in the active phase and there is no single definition of this phenomenon. Mohammed A. El-Erian insists that financial imbalances are «persistent large surpluses and deficits in payments» [79]. And IMF experts understand the financial imbalance as «the sum of deficits and surpluses of the current account of the balance of payments of the countries of the world» [67]. This interpretation significantly narrows the scope of manifestations of financial imbalances, since in practice

payment imbalances are more likely the result of deeper imbalances in the national economies of countries.

According to the scientific approach of G. Schinazi, the emerging of the financial sector from a stable state (dynamic equilibrium) to an unstable one occurs due to the endogenous accumulation of financial imbalances and the influence of exogenous shocks. At the same time, as the scientist notes, in the process of accumulating financial imbalances, the exposure of the financial sector to the materialization of systemic risks increases. This interpretation indicates the cumulative effect of financial imbalances, which in practice is clearly manifested in the accumulation of external obligations by countries that have a negative current account balance of payments [78].

K. Borio and W. White interpret «financial imbalances» as «overstrain» («overextension») of economic agents' balance sheets («excessive» increase in leverage/excessive borrowing) during booms as a result of the impact of changes (increases) in asset prices and external financing, which can lead to a decrease in the sustainability of economic growth and deepen the next recession in the economy [6]. At the same time, scientists pay attention to the use of a notionally narrower notion of a bubble, which is determined by a significant deviation of the price of assets from their fundamental value. This approach suggests the emergence of financial imbalances within the country at the micro level, while in practice most of them are «imported» from the outside.

Among domestic scientists, the interpretation of the economic category «financial imbalances» is close to the approaches in the interpretation of this concept by the foreign scientific community. In particular, V. Koziuk defines «financial imbalances» as a significant deviation of the dynamics of financial aggregates from their historical trajectory [57, p. 38]. This interpretation considers imbalances as a deviation of real financial indicators from their planned values, which makes it impossible to consider imbalances in a geographic plane. For example, today, developed countries attract more than 55 % of the total global volume of foreign direct investment, and developing countries — only about 40 %. Despite the fact that this case introduces an important time factor into the definition, it does not imply the imbalance between different financial aggregates at one time. A. Snezhko characterizes «financial imbalances» as «processes of overproduction or underproduction of financial instruments and services in individual market segments, overestimation of the balance of participants in the financial system, in cases of increased volatility in individual financial markets (price «bubbles»), etc.» [72, p. 31]. In contrast, L. Grigoriev and A. Ivashchenko single out the ratio of savings and investments as a financial imbalance that affects the unsustainable development of the world economy [52, p. 7].

A. Apokin argues that the problem of financial imbalances concerns primarily the world's largest economies of the USA, China, Japan and the EU [48, p. 12]. And V. Ivaniuk and D. Bogdanov are inclined to believe

that the imbalance of the world economy in its basic parameters represents serious risks for long-term economic growth [53]. According to scientists, in case of unfavorable developments, financial imbalances can be the main catalyst for the intensification of the economic crisis. The authors are confident that the idea of financial imbalances is based on indicators of the balance of payments of the countries of the world (primarily the current account balance of payments balance).

Thus, scientists consider in general only certain aspects of such a phenomenon as «financial imbalance» both in time and in space, and from the standpoint of negative influence on economic processes. Having studied the definition of this economic category by scientists and practitioners, in the author's opinion, «financial imbalance» is proposed to be considered as a state of the economic system, characterized by a disturbance of balance between the volume of financial resources and their needs. Moreover, such a situation is usually a cumulative result of deviating from the norm of quantitative and qualitative characteristics of financial flows [75, p. 950], the main of which is the deviation of the current account balance of the balance of payments. Along with the definition of the concept of «financial imbalances», an important issue is the classification of their types (Fig. 3.1).

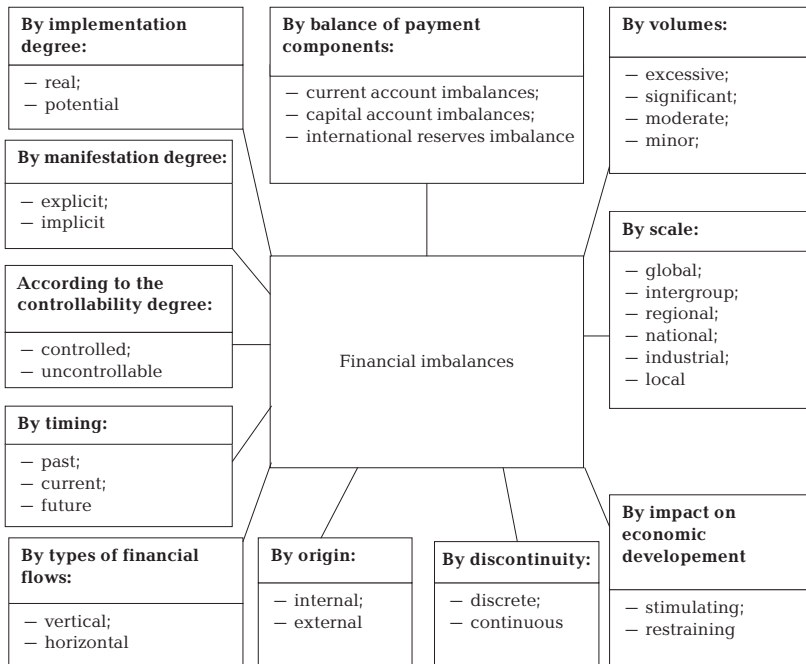


Fig. 3.1 Financial imbalance classification

Foreign and domestic researchers distinguish between types of financial imbalances at the microeconomic, mesoeconomic, macroeconomic and global levels, according to groups of classification indicators [59], although this division is rather conditional: one classification mark can characterize financial imbalances at all (or several) specified levels. At the same time, it should be noted that financial imbalances are more expedient to consider in the context of a holistic economy, and not limited to an exclusively separate level of their existence.

Separate financial imbalances at the macroeconomic level. They include the following: the deficit (surplus) of the trade balance; deficit (surplus) of the balance of payments; deficit (surplus) of the state budget; the ratio of savings and investments; negative (positive) net investment position. The aforementioned financial imbalances may also occur at lower levels of the hierarchy of the economic system. The generalization of the work of domestic and foreign scholars has allowed to distinguish the following financial imbalances by types of economic activities of the real sector of the country's economy: in the balance of the trading account of current operations (trade) in the balance of the capital account (investment).

Existing scientific approaches to the classification of financial imbalances do not allow disclosing their substantial characteristics in full, therefore it is proposed to supplement them with the following classification features. According to the sources of financial imbalances, it is advisable to allocate internal and external. External sources are reflected in the balance of payments and are a consequence of the country's place on the geopolitical map of the world. Internal financial imbalances are formed as a result of imbalances in the activities of economic agents and uneven financial flows between them. According to N. Kravchuk, under the influence of globalization processes external financial imbalances become a constant phenomenon, the manifestations of which are: currency-price disparities and payment imbalances; external debt and unbalanced international liquidity; imbalances in global savings and investments; global fiscal breaks, etc. [59, p. 302].

Undoubtedly, the goal of any country in the long run is to equalize financial imbalances. If, however, it was not possible to prevent the imbalance of the economy, it is necessary to analyze the characteristics of financial imbalances in order to develop a balanced policy to minimize them. So, to begin with, it is necessary to identify the presence of financial imbalances, since some (implicit) of them may be in their infancy and appear later with more dangerous consequences. In addition, it is necessary to determine the direction of each individual imbalance – the mathematical sign of the deviation from the threshold value and the volume of such a deviation. By adding data on the period of existence (short-term, average duration, long-term), experts can predict the impact of financial imbalances on the indicators of the country's economic development.

In this case, there are 3 options:

- 1) financial imbalance contributes to economic development (for example, attracting significant external borrowing or foreign investment to stimulate economic growth due to the multiplier effect);
- 2) financial imbalance does not affect the pace of economic development;
- 3) financial imbalance restrains economic growth, since a significant negative balance of payments usually delays countries into a trap and washes away financial resources for economic development.

Depending on a certain influence, a decision is made on counteracting or supporting financial imbalances. Today there are cases when some countries quite consciously create the conditions for the existence of financial imbalances. In particular, there is a significant increase in the imbalance of current accounts of the balance of payments: in developing countries, the size of surpluses gradually increases and, symmetrically, the deficit increases in the USA in the period of 2008 – 2012 amounted to 0.7 % of world GDP. Moreover, the United States deliberately supports negative indicators of the balance of payments due to the significant attraction of funds in government securities and huge volumes of imports.

However, according to scientists, not all imbalances pose a threat to the world economy as a whole and/or the economy of a particular country in particular, especially as regards cross-border capital flows. It is quite natural that capital moves in the direction of the most profitable use [16, 20]. The consequences of this process will not affect the economies of different countries until the resulting investment generates a profit high enough to service and pay the existing debt. However, external imbalances become a problem if they contribute to intensive accumulation of debt or unsustainable accumulation of foreign exchange reserves (for countries that control their exchange rates).

At the same time, actual statistics indicate that financial imbalances played a key role in the current turn of the financial and economic crisis. Massive capital inflows from developing countries contributed to reduced liquidity constraints for corporations and private households in the United States and some other industrialized countries (Australia, Ireland, Spain, United Kingdom), which in turn caused an increase in asset prices, particularly in the real estate market [28]. After a temporary reduction in imbalances of savings and investments as a result of the crisis, the balance of current accounts of the world began to return to pre-crisis levels, but today they remain far from their historical trends. The issue of the determinants of the imbalance of payment, quite controversial in the scientific community, and therefore requires further research.

In the modern scientific society, various theoretical approaches and tools are used to analyze the dynamics of the current account of the balance of payments. At the same time, they all rely on the theory of economic behavior to analyze the reaction of the current account balance to economic

shocks and the country's economic policy. Since a current account measures the difference between national savings and domestic investment, proper behavioral modeling of current account adjustment requires the use of the theory of consumption, savings, and investment decisions of economic agents. In addition, since savings and investments are promising solutions, the theoretical foundations of the study require the use of an intertemporal approach.

Obstfeld and Rogoff [30] should be considered the basis of non-classical theory in our case. Their approach to the current account is characterized by a dynamic, promising ideal for optimizing households, the consumption/saving ratio, and for firms by investment. Conceptually, their model explains PRSP as the difference between the current situation in the country and the long-term situation. This structure allows to simulate the smoothing between consumption rates, as well as the requirements for repayment of external liabilities and return of capital between the countries of the world.

In particular, the model assumes that capital flows from countries with low levels of capital returns are directed to countries with a high level of profitability. In turn, these capital gains are determined by two key factors: the relative limitation of capital and the growth prospects of the country, which is strongly affected by the growth of labor productivity. Both elements predict «downward» capital flows from rich to poor countries.

However, its main empirical predictions often deviate from actual Denmark. In general, the current account balance is usually much smaller and less volatile than theory predicts. In a recent review, a study by Gourinchas and Rey points to two specific empirical shortcomings. First, the neoclassical model does not explain the structure of net long-term capital flows from developing countries to developed countries. Secondly, the model does not take into account the «revaluation effects» of the country's net position with respect to foreign assets over time [17].

At the same time, the main mystery that arises as a result of observations of the dynamics of the current account balance of countries of the world is the increase in capital flows from developing countries, with limited investment resources to countries rich in capital; this phenomenon was called the «Lukas paradox» [3, p. 347 – 368].

In the widely cited work of R. Lucas [24, p. 92–96], it is noted that a simple neoclassical growth theory can't explain why, given the difference in labor productivity observed between rich and poor countries, there are no powerful capital flows that even out its productivity. According to Lucas, if neoclassical growth theory were correct, then in developed countries the investment process would practically stop, and instead, the process of capital accumulation would be most intense in less developed economies. In the future, this contradiction between the actual and theoretically stipulated direction and the volume of capital flows fell under closer attention of economists, as a result of which some theoretical explanations appeared that allow

one to understand what factors are holding back the movement of capital from rich to poor countries. Theoretical explanations are supported by empirical research. They also recall exactly which imperfections that cause the Lucas paradox are not taken into account in the neoclassical growth theory.

Two groups of factors that impede capital flow and contribute to the enhancement of asymmetric effects include both endogenous and exogenous factors [9]. The first group of factors includes those related to the fundamental structural features of the economy and the pursued state economic policy. The second group of factors relates to the imperfections of the international capital market. As a result, the authors come to the following several reasons that can explain the lack of capital flows between rich and poor countries.

The first reason may be unaccounted factors of production. Neoclassical theory assumes that capital moves to where its marginal productivity is higher, while marginal productivity depends solely on the so-called capital content, that is, the amount of productive capital per employee. Since, according to the theory, all countries use the same technology with two factors of production (labor and capital) and has the property of constant returns to scale, the marginal productivity is determined only by the ratio in the stock levels of these factors that the economy has. However, in reality, there may be additional factors of production that affect the marginal productivity of capital. An example of such factors, the authors call the land and human capital.

In addition, the cumulative factor productivity can be varied because of the lack of market unevenness between rich and poor countries. The marginal productivity of factors of production in countries with surplus and capital deficit can be equal, since high marginal productivity in a poor country can be suppressed by low aggregate factor productivity. In fact, this means that rich and poor countries use different technologies, not taken into account in the neoclassical growth model.

All the given explanations do not bring the reasoning beyond the neoclassical approach, which is characterized by ignoring various imperfections caused by information asymmetry, incomplete contracts, agency expenses and other factors, belong to the institutional sphere. It turns out that the Lucas paradox can also be explained by purely technological reasons and imperfect tools for assessing the actual production function.

In addition to technological theory, the lack of capital flows to poor countries can be explained by tax policies and weak institutions. The authors interpret the tax policy in a generalized sense, that is, they refer to taxes, for example, the inflation tax. The key factor in this case is the impossibility for an investor to get a return equal to the marginal productivity of capital. As a result, incentives to invest in poor economies are declining and capital flows are insufficient to equalize productivity. Weak institutions, which usually include poor security of property rights, work as a kind of additional tax on the investor, because they make it difficult for him to earn

an income from investments. The inability to effectively exercise control over the firm reduces the profitability of investments in poor countries. Finally, the last factor in this group is called by the authors «Sovereign risk», which is understood to mean the risk of refusal to make payments on financial contracts, both of the states themselves and of individual firms, possibly under pressure from the state. In the absence of instruments for coerced debt repayment, sovereign risk becomes a factor constraining capital flows. The overall effect in this case turns out to be the same – reducing the potential for investing in a poor economy.

A theoretical explanation of the unwillingness to lend to the developing and their governments is proposed by other scientists. In studies of J. Eaton and M. Gersovits [13, p. 289–309], the model in which countries attract loans can't be subjected to any painful sanctions in the event of their refusal to pay their obligations. In such conditions, borrowers have an incentive to refuse to repay loans attracted on world capital markets, and the reaction of capital markets to a default event is reduced to a temporary restriction of access to the country's capital markets, has defaulted. As a result, the borrower has the most disciplinary effect on the borrower if it refuses to fulfill its financial obligations to external creditors, the state will lose the opportunity to receive funding from the international capital market. At the same time, external lenders set a certain limit on the debt that they are prepared to give to poor countries, and this limit is below that level of debt, which corresponds to the social optimum.

Another explanation is offered by A. Alesina and G. Tabellini in [2, p. 403–414.]. They consider a theory in which a constant change of government, often accompanied by the refusal of each subsequent government from the obligations of the previous one, characteristic of some poor countries, leads to the fact that the cost of a foreign loan becomes excessively high. In addition, an additional negative effect on the cost of the loan creates an unpredictable tax policy. Moreover, the result is not only a reduction in external lending, but also a decline in domestic investment, since the uncertainty of tax policy has a negative effect on the incentives of any investor, regardless of which side of the border he is on. The economy, suffering from the flight of private capital, is prone to imposing restrictions on capital accounts in order to limit its outflow and redirect funds to the domestic market. Thus, political uncertainty inhibits domestic investment, reduces the attractiveness of investment in this economy for a lender from rich countries with a surplus of capital and leads to the introduction of restrictions on capital accounts.

A. Tornelli and A. Velasco offer another possible cause of insufficiently intensive capital flows to poor countries. They consider the problem of insufficient protection of property rights and the possibility for various lobbyist groups to appropriate investment income. According to the results of their research, capital can be invested in two technologies, one of which is more productive and has a greater return, but at the same time it is

characterized by the possibility of extracting the profits and assets of some interest groups [38, p. 399 – 436].

The less productive technology, although it gives a low return on investment, is also safe from the point of view of expropriating the products of production. Thus, the investor chooses the optimal investment portfolio, and the risks of expropriation affect the expected return on investment and determine the structure of the portfolio. The authors interpret investments in productive capital within the economy as investments in high-performance technology with the risk of losing assets. The absence of guaranteed, protected by law property rights, becomes the factor that creates the potential for asset appropriation by internal groups. The authors interpret safe, but less profitable investments as investments in the global capital market in countries with a developed institutional environment and a high degree of investment protection. Since these countries also have an excess of capital, the return on such investments is lower than the return on investments within the country, if we exclude the risk of losing assets. As a result, the insecurity of property rights leads to the fact that poor countries suffer from capital outflows, and developed ones, on the contrary, have an excessive inflow.

The presented paradox only partially takes into account the dynamics of the balance of current accounts and, mainly, although not excluded, is related to the relative positions of China and the United States. However, the dynamics of the indicator behind other countries is more in line with the theoretical concept – for example, with large or growing current account surpluses in Germany and Japan and corresponding deficits in Europe, developing countries and Turkey – other factors can also influence such dynamics.

According to the results of research and analysis of scientific sources, it is necessary to highlight some other determinants associated with the current account imbalance mentioned above, including the development of the financial sector, the quality of management and the difference in overall productivity of production factors. Based on these considerations, it is proposed to carry out an in-depth analysis of the main determinants that determine the current account balance.

Alternative (neoclassical) theories suggest considering the dynamics of the current account from three points of view: they may be the result of changes in the balance of trade in goods and services in a country; they can be determined by international capital flows and changes in a country's net investment position; or arise from disagreements between national production and income from it. At the same time, the latter point of view can be differentiated depending on the sector in which the difference arises between domestic savings and investments: private or public (public). Sometimes a surplus in one sector can be combined with a deficit in others, for example, if the internal savings in the private sector coincide with public net lending. In these cases, the current account is not affected. However, in other cases they may actually contribute to building up each other, for example, in

a situation where the private and public sectors form external debt («double deficit»). Thus, it is proposed to structure the analysis of existing scientific research on the determinants of current accounts based on these three views [25]. According to the first point of view, the current account imbalance is a consequence of the constant international differences in trading positions. From this point of view, a permanent trade surplus (or deficit) can in countries with limited export development base. For example, countries that export relatively inelastic primary commodities, such as oil, may see an increase in their trade surplus across the international commodity price cycle. In particular, the rise in oil prices explains the large surplus of the current account of oil-exporting countries in the 1970s and 2000s. The decline in oil prices in recent years has confirmed that this is one of the factors contributing to the decrease in current account imbalance in 2008 and the first half of 2009, before they began to grow again in late 2010 [14].

More generally, it can be assumed that equalization (deviation from the equilibrium value) of the real exchange rate can lead to a constant movement of the trade balance to a deficit or surplus, regardless of the relative specialization of the country. In part, these changes in the exchange rate may be the result of a targeted economic policy, for example, in countries whose economies are largely dependent on export growth. In such countries, competitive exchange rates are often considered crucial for increasing aggregate demand and employment in the short run. In addition, real exchange rates greatly influenced the change in the value of a unit of labor and the share of wages in the cost structure. Indeed, many countries of individuals with significant trade surpluses have contributed to the slow growth of labor costs to improve their external competitiveness, contributing to comparative advantages in labor-intensive sectors of the economy [1]. As a result, productivity growth was not accompanied by an increase in the share of wages, which led to an increase in income inequality, particularly in developing countries [47].

The increase in the share of wages and the increase in the inefficiency of functional incomes contributed to the growth of exports, especially in countries such as China, Germany and Japan. In these countries, the fall in the share of wages made export goods relatively cheap on the world market, but also led to low domestic demand, which in turn limited import growth. The decline in employment levels has led to a further reduction in wages.

The second point of view emphasizes the change in the position of net foreign assets, mainly due to the difference in the rate of return on capital. Partially, such disagreements arise due to short-term cyclical factors, since countries adhere to different national macroeconomic policies. For example, S. Cheung and other scientists [9] prove that, apart from changes in production growth rates, oil prices or exchange rate dynamics, differences in short-term interest rates (i.e. differences in the nature of monetary policy), which largely contributed to reducing imbalances in the early 1990s and after the financial and economic crisis of 2008 – 2009. In particular, these factors were

considered important for understanding the development of the balance of the United States [77]. In addition, foreign exchange interventions aimed at the formation of foreign exchange reserves in some Asian countries led to massive distortions of the nominal exchange rate, creating the ground for a possible revaluation of some currencies, in particular, the Chinese yuan.

At the same time, in the medium term, institutional factors related to the development of the financial sector and the openness of international capital flows play a more important role. Exploring the medium-term empirical links of current account balances to a wide range of macroeconomic determinants, M. Chinn and E. Prasad emphasize that financial depth indicators measured by the level of monetization of a country positively correlate with current account balances, including while other indicators of the financial system, such as capital controls, had no significant effect. These results partially contradict the findings of previous research [10], proving the negative impact of the degree of the financial sector development, which is measured by the ratio of private loans to current account balances [27]. Differences in results are mainly due to the fact that various indicators are used for the calculations. In this regard, it should be noted that the use of indicators of the dynamics of the ratio of loans to current account balance as an indicator of the development of the financial sector is more acceptable. The use of monetary indicators, on the other hand, has a certain advantage, since they are available for a larger sample of countries, but do not necessarily allow conclusions to be drawn on the complexity and level of development of the financial system.

Such feedback between financial development and current account balance may arise due to the fact that a well-developed financial system and a high level of investor protection attract foreign capital flows and direct funds to countries with more liquid assets and more competitive systems [5; 21]. On the other hand, in less developed countries, international and domestic deficiencies in the capital market are especially high, and the quality of management is low, which leads to a high risk for investors [3]. In general, there is a supply shortage of low-risk assets around the world, causing significant capital inflows to relatively more developed financial systems, particularly in North America and the United Kingdom [8]. Under these conditions, the liberalization of capital transactions can actually lead to a reverse flow, from less to more developed countries. Thus, financial openness is a stimulating factor for capital inflows for economies that have already reached a certain level of development and limits capital inflows to developing countries.

Secondly, almost all developed countries (with the exception of the United States) are characterized by negative demographic trends. In the face of declining birth rates and increasing life expectancy, this leads to a reduction in the economically active population and an increase in the burden on the working population. The population decline is also relevant for some developing countries and emerging economies, including Ukraine, which

is characterized by low birth rates and extremely high death rates. This imbalance can be considered an imbalance between objective demographic trends and the need to ensure sustainable economic growth.

In the ratio of savings and investment, demographic trends are also important. Almost all developed countries (except the United States) are characterized by negative demographic trends. In the face of declining birth rates and increasing life expectancy, this leads to a reduction in the economically active population and an increase in the burden on the working population. The population decline is also relevant for some developing countries and emerging economies, including Ukraine, which is characterized by low birth rates and extremely high death rates. This imbalance can be considered an imbalance between objective demographic trends and the need to ensure sustainable economic growth.

With other things being equal, such demographic trends can be expected to increase the level of savings in developed countries in some European countries (Germany, Switzerland and some others). In developed countries, investment opportunities remain relatively limited in terms of population reduction and the already high capital intensity of labor. This leads to an increase in the countries' surplus of payments due to an increase in the savings rate. At the same time, developing countries are characterized by high fertility and low levels of accumulated capital, which means a potentially high return on capital. It follows that in the long term, developed countries tend to maintain a surplus of payments, while developing countries tend to maintain a deficit. As already mentioned, the opposite situation is currently observed — developing countries with a low level of accumulated capital and a high rate of return on capital are financing developed countries with a low level of income on capital. As a result of this situation, phenomena in financial markets became known — an extremely low level of interest rates and a smoothing of the yield curve. However, it is worth noting that such a trend will not be stored for quite a long time — as the financial markets of developing countries develop, the possibilities for investing the savings both inside and outside the country will increase, which will mean a reduction in financial imbalances.

3.3 Trends in international capital movement in the context of global financial imbalances

The long-term impact of the global economic crisis, the main factors of which are accumulated financial imbalances, reinforces the urgency of the problem of overcoming its consequences, both at the level of national economies, their regional associations, and in the global dimension. Consequences of both the global crisis and the policy of overcoming its crisis have significantly changed the trends of the modern world economy — shifts are taking

place in the international and interregional division of labor, the geo-economic roles of developed countries and developing countries are transforming. The investment activity of participants in the international market, as one of the key forms of international economic relations, most clearly reflects the changing priorities and strategic roles of these groups of countries.

The transformation of the world economic space is accelerating largely due to global financial markets, and foreign investment has become an increasingly important characteristic of the global economy over the past 20 years. In 2015, the total amount of foreign direct investment in the world grew by about 40 %, to 176 trillion USD, what was the highest level since the global economic and financial crisis that began in 2008. However, this growth did not lead to equivalent growth in GDP potential in all countries.

An analytical study of the current trends and prospects of the international investment process of UNCTAD shows a decline in FDI flows by 23 % in 2017, which was the result of the imbalance of the global economy, weak aggregate demand, effective policy measures to limit transactions that help avoid taxes and a sharp decline in TNC profit by 10 % (Fig. 3.2). Increased geopolitical risks and regional financial imbalances may further exacerbate the expected recession.

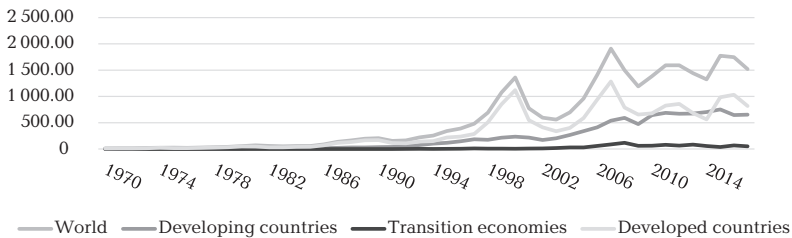


Fig. 3.2 Global FDI inflows by country groups, 1970 – 2017 [65, 46]

As noted, according to UNCTAD research, in 2015–2016, was a significant increase in FDI after the next round of the global financial and economic crisis, but this did not have a productive impact on global GDP, as trends in the global macroeconomic environment have recently dominated, aimed at slowing growth in emerging markets, and accompanied by a sharp decline in prices for commodities. The main explanation for this discrepancy is the surge in operations related to cross-border mergers and acquisitions, especially in developed countries. Already in 2017, total FDI inflows decreased by 17 % to 15.2 billion USD, the reason for which was a 27 % drop in FDI flows to developed countries, mainly the United Kingdom and the United States. At the same time, it is assumed that in 2018, global FDI volumes will return to the 2016 year indicators and amount to more than 1.8 billion USD.

In this context, scientists are worried about the obvious outflow of productive investments by TNCs. During 2015, the capital expenditures of the 5,000 largest TNCs continued to decline (by 11 %) after the recession began in 2014 (by 5 %) (Fig. 3.3).

The presented trends are a reflection of the current global macro-economic situation. A large number of TNCs in the extractive industry, for example, have reduced their capital costs and announced a significant reduction in their medium-term investment plans. TNCs in other industries in the same direction are revising their projected capital expenditures and sales volumes. In 2015, the growth rate of world trade in goods and services was slower than the growth rate of real GDP, having increased by only 2.6 % compared with an average growth rate of 7.2 % in the period 2000 – 2007 before the global financial crisis.

The insignificant growth in trade volumes after the financial crisis is partly due to weaker economic growth and fixed capital accumulation, caused, in particular, by a significant slowdown in the rate of international vertical specialization and cooperation.

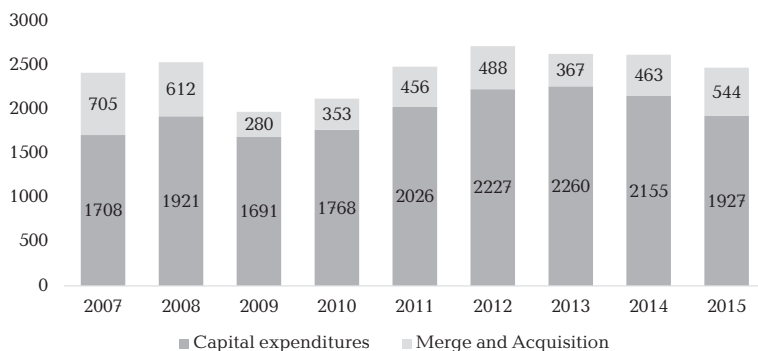


Fig. 3.3 The largest 5000 TNCs: capital expenditures and costs of acquiring companies, 2007 – 2015 (billion USD) [42]

In the geographical structure of FDI, the traditional poles of investment are developed countries, but in 2015, Asian developing countries became the largest recipient of FDI. FDI flows to developed countries almost doubled (by 84 %) from 522 billion USD in 2014, up to 962 billion USD in 2015, and in 2017 reached 1 trillion USD. FDI in developing countries, according to international statistics – except the Caribbean financial centers – increased to 765 billion USD, or 9 %, while the same indicator for countries with emerging economies decreased by 38 % to 35 billion USD (Fig. 3.4). As a result of the reduction trends, the share of developed countries in the structure of the global volume of attracted FDI increased from 41 % in 2014

to 55 % in 2015, changing the trend of the last five years, provided that the main countries recipient of FDI are developing and emerging.

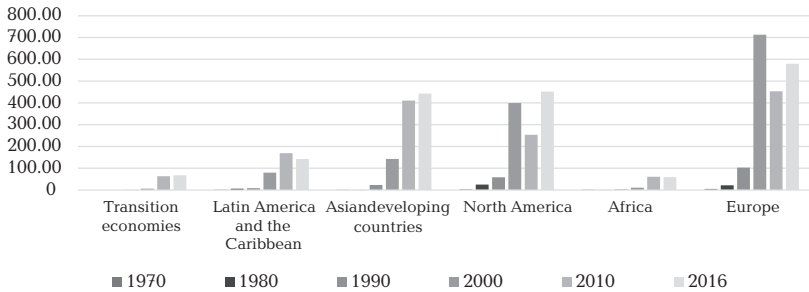


Fig. 3.4 Dynamics of FDI inflows by region of the world, billion USD [39, 42, 45]

An in-depth analysis of the asymmetries of the FDI distribution in a geographic plane shows that FDI flows in North America and Europe showed a particularly significant increase in volumes during 2015, and in 2017 the same sharp declined (Fig. 3.4). In 2015, foreign investments in North America increased by 160 % (to 429 billion USD), which was due to a more than 250 % increase in investment in the United States, and in 2017, FDI in the United States decreased to 275 billion USD, compared to 456 billion USD in 2016 of FDI flows in 2015. European countries also increased sharply (by 65 % or 504 billion USD) as a result of a 50 % increase in the volume of foreign direct investment in the European Union member countries and a significant increase in the FDI volume in Switzerland (from 7 billion USD to 69 billion USD). And in 2017, the volume of attracted investments in the EU countries amounted to 304 billion USD, which is 42 % less than the figure recorded at the end of 2016.

The sharp increase in the volume of operations related to cross-border mergers and acquisitions during the year, the main driver of growth in FDI inflows in countries with developed economies. The total value of transactions increased by 109 % to 631 billion USD, reaching its highest level since 2007. This phenomenon is especially vividly observed in the USA, where net sales increased from 17 billion USD in 2014 to 299 billion USD in 2015. In European countries, the volume of these transactions also increased – by 36 %.

Owing to active operations with capital and transformation of corporate structures of the largest players in global markets, TNCs, unprecedented in their economic scale, are formed, which increase the polarity of investment flows in the world. Based on developed countries, giant holding companies have a decisive influence on the disposition of economic forces in the global arena and reflect the asymmetries of global development. To make sure of

this, it is enough to look at the regional structure of the 500 largest companies in the world – a small number of them have headquarters located outside the US, EU countries or Japan (Table 3.2). At the same time, attention should be paid to the growing role of the BRIC countries (Brazil, Russia, India, China) in the global redistribution of income. The lion's share of the additional cost, absorbed by the developing, falls on the BRIC countries, the rest – almost nothing remains [60].

Table 3.2 Location asymmetry of the 500 largest TNCs, 2016

No.	Country of origin	Quantity	Share, %	No	Country of origin	Quantity	Share, %
1	USA	152	30.4	16	India	7	1.4
2	Japan	63	12.6	17	Singapore	6	1.2
3	France	31	6.2	18	Sweden	6	1.2
4	Great Britain	30	6.0	19	Bermuda	5	1.0
5	China	29	5.8	20	South Africa	5	1.0
6	Germany	25	5.0	21	Taiwan	5	1.0
7	Canada	22	4.4	22	Turkey	4	0.8
8	Spain	15	3.0	23	Norway	3	0.6
9	Australia	14	2.8	24	Denmark	2	0.4
10	Switzerland	13	2.6	25	Ireland	2	0.4
11	Italy	11	2.2	26	Luxembourg	2	0.4
12	South Korea	11	2.2	27	Mexico	2	0.4
13	Brazil	8	1.6	28	Finland	2	0.4
14	Netherlands	8	1.6	29	Other	9	1.8

* Including: Belgium, Greece, Israel, Colombia, Kuwait, Portugal, Saudi Arabia, Thailand, and the Czech Republic – one company.

Compiled by the author on the basis of [42–44]

When analyzing the data in Table 3.2, the conclusion suggests itself that it is in this way (through their TNCs) that governments, at least the most influential, remain a significant market force, having access through transnational companies to financial and investment resources and national markets less economically developed countries. A simple comparison of transnational corporations and states (taking into account the indicators of value added and the number of personnel and GDP and the number of labor resources, respectively) convincingly demonstrates a pronounced asymmetric distribution of global GDP and capital, which shows the deformed structure of the global economy and determines its basic development proportions. Although none of the TNCs are included in the list of the forty largest economies in the world (Table 3.3), however, they are significantly ahead of the GDP of many countries in the world, including Ukraine, in terms of annual income.

Table 3.3 Comparison of revenues of the leading TNCs of the world and GDP of individual countries, 2017

Rating position	Country or company	GDP or income for 2017 (billion USD)	Growth rate of GDP or income, % by 2016	Number of employed, thousand people	GDP or income per 1 employed person (thousand USD)
1	China	23 159.00	8.7	806 700.00	28.71
2	USA	18 624.48	1.5	160 400.00	116.11
3	India	8 700.62	7.1	521 900.00	16.67
4	Japan	5 359.59	1	67 770.00	79.08
5	Germany	4 030.40	1.9	45 900.00	87.81
6	Russian Federation	3 635.87	-0.2	76 530.00	47.51
13	Turkey	2 007.47	3.2	31 300.00	64.14
14	Saudi Arabia	1 756.33	1.7	12 340.00	142.33
20	Poland	1 039.74	2.6	17 600.00	59.08
26	South Africa	739.23	0.3	22 190.00	33.31
28	UAE	671.12	3	5 344.00	125.58
29	Switzerland	534.9	1.4	5 159.00	103.68
33	Singapore	492.5	2	3 668.00	134.27
34	Walmart	485.87	0.8	2 300.00	211.25
35	Kazakhstan	449.95	1.1	9 147.00	49.19
37	Ukraine	352.89	2.3	17 990.00	19.62
38	State Grid	315.2	-0.04	926.07	340.36
39	Sinopec Group	267.52	-9.1	713.29	375.05
41	China National Petroleum	262.57	-12.3	1 512.05	173.65
42	Toyota	254.69	7.7	364.45	698.85
45	Volkswagen Group	240.26	1.5	626.72	383.37
47	Royal Dutch Shell	240.03	-11.8	89	2 697.00
50	Apple	215.64	-7.7	116	1 858.96
53	Exxon Mobil	205	-16.7	72.7	2 819.86
54	McKesson	198.53	3.1	64.5	3 078.03
71	Samsung Electronics	173.96	-2	325	535.25
73	Glencore	173.88	2	93.12	1 867.24
78	Belarus	171.66	-2.6	4 381.00	39.18
93	Daimler	169.48	2.2	282.49	599.97
95	General Motors	166.38	9.2	225	739.47
120	Amazon	135.99	27.1	341.4	398.32
130	Honda	129.2	6.2	211.92	609.67
137	General Electric	126.66	-9.8	295	429.36
138	Georgia	37.21	2.7	1 998.00	18.62

Source: compiled by the author on the basis [15, 36, 39]

Thus, by concentrating financial potential, economically developed countries impose the periphery conditions for the movement of capital, establishing control over the financial systems of the latter and appropriating revenues on the scale of the world economic system.

At the same time, a significant increase in FDI flows in Asia contrasts sharply with more moderate rates in developing countries in other regions of the world. In general, for 2016, UNCTAD experts calculated that FDI flows to developing countries and countries with economies in emerging increased slightly (by 6 %). At the same time, such growth does not reveal a much more complicated situation, since a significant increase in FDI in some Asian countries is compensated by a significant decrease in the volume of attracted FDI in almost every region, and in countries with emerging economies. Investment flows in Africa decreased by 7 % (to 54 billion USD), in Latin America and the Caribbean by 2 % (to 168 billion USD), and in countries with emerging economies by 38 % (to 35 billion USD). But despite these trends, half of the top 10 largest recipients of FDI were developing [42 – 46].

The main catalyst for the FDI decline in developing countries and countries with economies in emerging has been the long-term decline in commodity prices, especially oil, metals and minerals. The sharp fall in oil prices that occurred in 2014 – 2016 has become a heavy burden on FDI in oil-exporting countries in Africa, South America and countries with economies in emerging. FDI in OPEC countries were influenced not only by a reduction in planned capital expenditures in response to price cuts, but also by a sharp decrease in the rate of reinvestment of income due to a decline in income. The economies of countries in which the mining industry plays a dominant role in the formation of investment resources also show a decline in FDI.

Another factor affecting the decline in FDI is the relatively slow growth of emerging markets as a whole, which limited investment activity. Among the BRICS countries, which represented about a third of FDI flows to developing countries and emerging economies, in particular, Brazil and Russia are in recession. At the same time, there is a slow growth in South Africa, a slowdown in economic growth in China and a relatively stable situation in India. In turn, these countries, pursuing a policy of devaluation of their national currencies, increase the pressure on profits expressed in US dollars, which, accordingly, reduce the pressure on the reinvestment of income.

Equally controversial manifestation of the processes of investment globalization is the proactive development of financial markets in countries with a growing market. The investment potential of emerging market countries remains undervalued by international investors. In the MSCI index, this group of countries accounts for only 12 %, while their contribution to the production of world GDP is already about one quarter. At the same time, it is important to note that not only the BRIC countries, led by China, but also other emerging markets, have significantly increased their participation in the global economy.

An analysis based on GDP shows that in 2017, almost 40 % of world production was accounted for by emerging market countries [44]. The rates of economic growth in this group of countries are ahead of those of developed countries. The existing human and mineral potential in the near future will provide in emerging market countries, a rapid increase in consumption and investment.

The emerging of many countries to an innovative economy in the XXI century activates the movement of international portfolio investment [58, p. 10]. In turn, it is necessary to remember that they do not give the investor any right to control over the collateral of securities, but can act as a tool for capital speculativeness due to the possible increased risk. Portfolio investments have always been those financial instruments that are operated on the relevant financial markets through bonds, stocks, derivatives in the form of options, forward contracts, swap agreements, and the like. The use of derivative financial instruments (derivatives) in recent years is due to their ability to diversify all sorts of risks faced by foreign investors.

Portfolio investments owe their rapid growth to investors from Japan, as well as recipient countries from the United States, Latin America and Southeast Asia. So, in the 70s of the twentieth century, direct investment was the dominant form of international investment, and already at the end of the century there was an active development of portfolio investment. For example, for the period 1970 – 1990, the volume of foreign direct investment in the seven leading industrialized countries increased 43 times, portfolio – 149 times (Table 3.4). And since the 1980s, the export of capital in the form of portfolio investment in its volume has begun to even exceed the volume of direct investment.

Table 3.4 Direct and portfolio investment flows in the top seven developed countries, 1970 – 2014

Years	Direct		Portfolio		Total, billion USD
	Volume, billion USD	Share, %	Volume, billion USD	Share, %	
1970	14.0	73.7	5.0	26.3	19.0
1975	34.0	55.7	27.0	44.3	61.0
1980	83.0	57.6	61.0	42.4	144.0
1985	76.0	24.6	233.0	75.4	309.0
1990	283.0	46.2	330.0	53.8	613.0
1995	369.0	32.6	764.0	67.4	1 133.0
2000	717.0	48.6	757.0	51.4	1 474.0
2005	818.9	48.3	877.6	51.7	1 696.4
2010	935.2	47.9	1 017.3	52.1	1 952.6
2014	1 068.1	47.5	1 179.4	52.5	2 247.5

Source: compiled by the author on the basis of [44–46]

In the XXI century, portfolio investment increasingly prevails in relations between a developed group of states, the United States and Europe. If to consider developing countries (including India, Brazil, China, Korea, Singapore, etc.), as a single group, then the proportion of direct investments in their economies is higher than the share of portfolio investments. On the contrary, for industrialized countries (Japan – in Asia, Canada and the USA – in North America) another tendency is characteristic – the share of portfolio investments on direct investments is exceeded.

According to IMF experts, there is a risk that the imbalance in the flows of direct and portfolio foreign investment will increase again [66, p. 125]. Indeed, the fundamental factors that caused the new imbalance of the world economy (at the beginning of the XXI century, the share of portfolio investment is growing again) associated with the structure of the global financial and monetary system have not disappeared. A significant part of the official foreign exchange reserves of the countries of the world fit into the financial assets (government securities and bank deposits) of the United States, as well as the United Kingdom, Canada and Australia, that is, the countries – the main recipients of capital. And as long as confidence in dollars of USA, Canada, Australia, and pound sterling remains, such a vector of investments will only grow.

The internal contradictions of the global financial and investment sphere in the context of globalization have begun to manifest themselves in financial and currency crises. The phenomenon of the rapid spread of such crises from one country to another is observed, primarily due to the fact that foreign portfolio investment is characterized by relatively lower stability, more susceptible to market volatility risks, a sudden outflow from the country under the influence of «Uncertainty fluctuations (especially financial and currency crises). This is especially obvious when compared with direct investments, they are real, physically considerable investment in enterprises and equipment (Table 3.5).

Table 3.5 Comparative indicators of the stability of types of foreign investment in periods of financial crises

Country	Coefficient of variation	
	Direct investments	Portfolio and other investments
Argentina	0.60	11.50
Brazil	0.50	2.50
Indonesia	3.13	11.96
South Korea	8.02	1.24
Mexico	0.38	1.86
Philippines	0.48	1.03
Russia	0.81	0.76
Thailand	0.74	61.33
Turkey	0.90	1.47
Ukraine	0.30	2.72
Uruguay	0.42	6.33

Source: compiled by the author on the basis of [66, p. 15]

One of the most common methods for evaluating the effectiveness of attracting FDI is the methodology of the United Nations Conference on Trade and Development (UNCTAD). Comparing the actual volumes of FDI of any country with its possible potential, the effectiveness of FDI inflows is estimated using indices and country rankings according to the degree of actual realization of the existing potential in attracting FDI [41, p. 35–40]. The most significant drawback of this approach is the lack of an assessment of the quality of attracted FDI and their impact on the development of the economies of countries.

It should be noted that the investment potential is understood as the maximum possible ability to attract production and effectively use investment resources to make real and financial investments that materialize in the newly social production factors and public infrastructure [43, p. 253].

According to the actual Inward FDI Attraction Index, countries are ranked by the volume of FDI inflows in absolute terms relative to the size of the economy. It reflects the country's average rating in terms of inflows and accumulated FDI as a percentage of GDP.

The actual index can be calculated based on the net inflow of FDI for a particular year (Table 3.6).

Table 3.6 The actual index of attracting FDI in some countries of the world for 1990–2016

No.	Country (group of countries)	1990		2000		2010		2016	
		Value	Place in the ranking	Value	Place in the ranking	Value	Place in the ranking	Value	Place in the ranking
1	World	9.6	–	21.4	–	30.4	–	35.0	–
2	Developed countries	9.2	–	21.6	–	31.8	–	37.9	–
3	Developing countries	11.1	–	21.2	–	27.4	–	30.4	–
4	Emerging countries	0.9*	–	13.3	–	31.5	–	40.1	–
5	USA	9	66	27.1	71	22.9	134	34.4	124
6	China	5.2	97	15.9	108	9.7	173	12.1	177
7	Hong Kong	262.1	1	253.6	4	466.90	6	496.1	5
8	Germany	14.2	45	24.1	79	27.9	120	22.2	147
9	Ukraine	1.3*	144	12.0	124	38.9	94	51.9	80
10	Belarus	0.1*	163	9.8	140	17.3	146	38.8	111
11	Poland	0.2	149	19.5	94	39.2	92	39.8	108

* Data as of 1992.

Source: Compiled by the author according to [41, 42]

To determine the policy of attracting FDI, the ability to estimate the index over a longer period of time is more relevant due to the fact that:

- 1) FDI flows can vary significantly from year to year;
- 2) decision on the implementation of FDI may take more than one year and provide for a long-term commitment;
- 3) government initiatives and tools to improve the policy of attracting FDI in general require a long time for positive effects on the economy.

The table shows that Ukraine, Poland, Belarus and the countries in emerging in general have significantly improved their positions. At the same time, more developed countries have somewhat worsened their position in the ranking. First of all, this is due to the peculiarities of the calculations, since the GDP of Ukraine and neighboring countries is constantly decreasing in dollar terms due to devaluation of national currencies, and therefore a slight absolute change in foreign investment, mainly in free foreign currencies, led to a significant increase in the share of FDI attracted in GDP. And vice versa, taking into account the significant volumes of the GDP of developed countries (USA, Germany and others), the amounts of FDI attracted by them, cause a decrease in the index of actual attraction of FDI. So, this method does not provide unambiguous information on the effectiveness of the actual attraction of FDI countries of the world, since the exchange rate factor becomes decisive in influencing the resulting indicator.

For international comparisons and estimates of FDI inflows, UNCTAD experts further suggest comparing the potential and actual indices of FDI attraction (Inward FDI Potential Index) [41].

The potential index covers four key economic components of the attractiveness of the country's economy for foreign investors, corresponding to the motives of decision-making by foreign investors on the theory of Dunning (OLI-paradigm) [11, p. 184]:

- 1) market attractiveness;
- 2) availability of cheap and skilled labor;
- 3) availability of natural resources;
- 4) availability of infrastructure.

Each of these components includes separate indicators (Table 3.7), the order of calculations and the units of measurement of which are presented below.

The method of calculation of this index is to determine unweight arithmetic mean indicators, since there are no objective prerequisites, and statistical evidence of the need to calculate individual weights of indicators. The value of each indicator is preliminarily normalized with a view to its assessment ranging from 0 (for countries with a low value) to 1 (countries with the highest value). The total potential index of FDI is determined by combining the estimates of four determinants, using the same weight for each (Table 3.8).

Table 3.7 Selected indicators to calculate the potential FDI index

Components of the economy attractiveness	Indicators	The order of calculations, units	
1. Market attractiveness	1.1 Market size	GDP at purchasing power parity, USD	
	1.2 Consumption level	GDP per capita at purchasing power parity, USD	
	1.3 Potential market growth	Growth rate of real GDP, %, (in 2011 prices), USD USA	
2. Availability of cheap and skilled labor	2.1 Unit cost of labor	Average monthly salary	
	2.2 Labor productivity	GDP per person employed (in 2011 prices), USD/person	
	2.3 Labor reproduction (existing skill base)	The share of employment in industry, % of the number of employed	
3. Availability of natural resources	3.1 Exploitation of natural resources	The share of exports of fuel resources and metal ores, % of total exports	
	3.2 Agricultural potential	Arable land area, % of total area	
4. Availability of infrastructure	4.1 Transport infrastructure	Density of roads, km of roads per 100 sq. km square	
		The proportion of paved roads in total length	
		The length of the railway lines of the general route, km	
	4.2 Energy infrastructure	Line shipping index	
		Electricity consumption, kWh/person	
		4.3 Telecommunication infrastructure	The length of telephone lines per 100 inhabitants
			Number of mobile cellular subscribers per 100 inhabitants
	Fixed broadband Internet access per 100 inhabitants		

Source: Compiled by the author according to [41, p. 30]

Rating of countries in the Table 3.8 according to the components of the potential index of FDI attracting allows assessing investment motives for foreign investors, and can also be the basis for determining the types of economic activity or sectors of economies in which it is most appropriate to attract FDI. Based on these ratings, it was revealed that China has the greatest potential for FDI attracting, and this is achieved primarily by the presence of significant reserves of natural resources, that is, FDI is most appropriate to attract to its mining and processing industries. At the same time, Ukraine in the overall ranking has a rather high result, ranking 22nd. The main motive for attracting FDI according to the UNCTAD methodology is potentially cheap and skilled labor, as well as significant (relative to the needs of the economy) natural resources.

Table 3.8 Rating of countries by FDI potential index in 2015

Country	Economic indicator groups				Total rating
	Market attractiveness	Availability of cheap and skilled labor	Availability of natural resources	availability of infrastructure	
Bahamas	105	...	46	150	95
Bahrain	87	...	32	92	61
Belarus	34	7	52	56	27
Bulgaria	91	36	40	46	49
China	6	3	43	6	1
Germany	11	47	2	10	8
Hong Kong	7	74	1	103	40
Poland	15	32	26	20	18
Qatar	1	71	45	85	48
Russian Federation	14	24	31	2	6
Ukraine	50	19	37	23	22
USA	20	25	11	1	2

... – data is not available.

Source: Compiled by the author according to [61]

Looking at the prospects, it should be noted that the world economy continues to face serious constraints that can hardly alleviate their influence on global development in the near future. Global GDP is expected to increase by only 2.8 % in 2018, which is slightly better compared to a rather low level in 2015 (Table 3.9).

Table 3.9 The growth rate of real GDP and gross fixed capital formation (GFCF), 2014 – 2017, %

Indicator	Group of countries	2014	2015	2016	2017
Real GDP growth rate (UNCTAD)	World	2.6	2.4	2.4	2.8
	Developed countries	1.7	1.9	1.8	1.9
	Developing countries	4.4	3.8	3.8	4.4
	Emerging countries	0.9	-2.8	-1.2	1.1
Growth rate of gross fixed capital formation (IMF)	World	3.8	2.2	3.2	4.2
	Developed countries	2.8	2.5	2.5	3.2
	Emerging and developing in the countries	4.5	2.0	3.8	4.8

Source: Compiled by the author according to [73, 44]

The turbulent start of 2016 in global commodity and financial markets, in addition to the prolonged fall in oil prices, increases economic risks in many regions of the world. Growth impulse slowed down significantly

in powerful developed countries compared to the end of 2015. In developing countries today there is extremely sluggish aggregate demand, low commodity prices, supporting and deepening fiscal and payment imbalances, and the proliferation of protectionist economic policy tools further weakened the growth prospects of many commodity exporters. Thus, heightened geopolitical risks, regional tensions, and economic shocks in the commodity markets can further increase the expected decline.

The outlook for the world economy and lower commodity prices has a direct impact on the level of profitability and profitability of TNCs, especially in the mining industry. After two years of growth, the profit of the 5,000 largest TNCs fell in 2015 to the lowest level since the beginning of the global economic and financial crisis of 2008 – 2009 (Fig. 3.5).

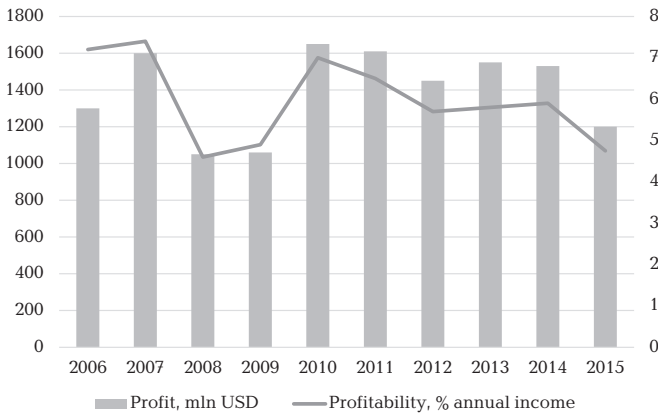


Fig. 3.5 Profits and profitability of the 5,000 largest corporations in the world.

Source: Compiled by the author according to UNCTAD [42]

The decrease in FDI flows in 2016 was also reflected in the cross-border mergers and acquisitions figures, which were announced in early 2016. During the first four months, the cost of cross-border M & A ads (including disinvestment) was about 350 billion USD, or 32 % lower than the same period in 2015. However, some sectors of the economy, such as agribusiness, for example, further consolidate assets. In 2016, some mega agreements were announced, including the purchase of ChemChina (China) of Syngenta (Switzerland) for 46 billion USD and takeover of Bayer AG (Germany) by competitor Monsanto (US) for 62 billion USD [37 – 41].

The cost of the expected cross-border M & A transactions could be higher, provided that the United States Treasury Department did not introduce new measures to curb corporate inversions in April 2016, involving the registration of companies abroad in order to reduce the tax burden on

income received abroad. The new rules are a component of the third wave of the government's administrative measures program against inversions, in order to make it difficult for a company to move its tax obligations outside the United States and, accordingly, transfer income to low-tax countries. As a result of government activities, the merger is worth 160 billion USD pharmaceutical company Pfizer (US) with Irish Allergan Plc. was canceled.

Despite the negative trends, analysts predict that in the medium term, FDI flows will resume growth by 5–10% in 2018 and will exceed 1.8 billion USD, reflecting projected growth in global GDP.

Of particular scientific interest in the development of the concept of attracting foreign investment in every country of the world, including Ukraine, is the sectoral distribution of foreign investment. Since modern realities are encouraging the countries of the world to specialize and more and more fragmented business processes of production, it is necessary to assess and predict which industries are in «demand» among foreign investors.

According to the UNCTAD researchers, the services sector accounts for almost two thirds of the global FDI (26 trillion USD). In 2016, the last year for which information on the sectoral structure is available, services accounted for 64% of global FDI, production (27%) and the mining sector (7%), 2% did not set the sector of the economy with FDI (Fig. 3.6) [45, 46].

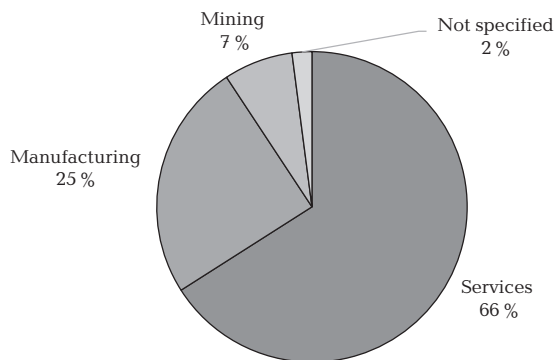


Fig. 3.6 Sectoral structure of attracted FDI in the world in 2016, %

The general sectoral models of attracted investments are very similar in developed and developing countries, at the same time there are differences between countries located in developing regions (Fig. 3.6). The share of the primary sector in FDI in Africa and Latin America and the Caribbean – 28% and 22%, respectively – was much higher than the 2% registered in Asian developing countries, largely reflecting the weight of the extractive industry. In developing Asia as a counterbalance, services account for a large

proportion of FDI, mainly due to FDI in Hong Kong (China). The recent fall in commodity prices has significantly affected the sectoral distribution of FDI flows to developing countries in general, as well as in Africa and Latin America and the Caribbean in particular.

The collapse in commodity prices led to a sharp reduction in FDI inflows in the extractive industries. The «commodity super-cycle», which began in the late 1990s and early 2000s, which resulted in a steady increase in the price of oil and metals to the historical level, was interrupted in 2008 by the global financial crisis. Although the super-cycle later regained strength, it entered a downward phase [36]. The price index for minerals, ores and metals has been steadily declining since the end of 2012, and oil prices have begun to decline sharply since mid-2014 (Fig. 3.7).

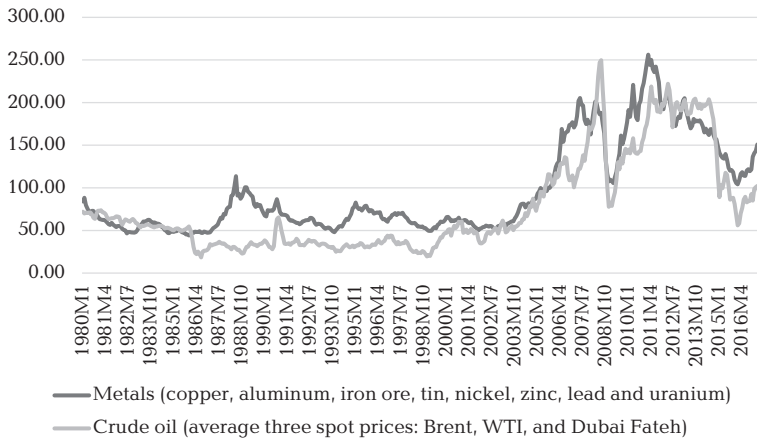


Fig. 3.7 The index of commodity prices, 1980 – 2017.
Source: compiled by the author according to [39, 44, 64, 66]

The sharp decline in commodity prices, in turn, affected corporate profitability, especially in the oil and gas industry. For example, BP Plc (United Kingdom) reported a net loss of 65 billion USD in 2015, what is the worst financial result of the company over the past 30 years. In addition, lower prices constrained capital expenditures in the extractive industry, leading to a reduction in the number of international investments in this sector. For example, large oil companies such as Chevron and ExxonMobil (USA) have reduced staff, operating expenses and capital expenditures in 2015 and announced further cost reductions for 2017 – 2018. Thus, due to the fall in commodity prices, the capital expenditures of TNCs in the extractive industry are expected to remain low over the next few years [42].

Data on cross-border mergers and acquisitions, as well as new investment projects announced underscore the impact of world commodity prices on equity investments in the extractive industries. The share of the primary sector (mainly the mining industry, including oil and gas) in cross-border M & A operations decreased from 8 % in 2014 to 4 % in 2015, for comparison, it should be noted that in 2010 – 2011 this figure was more than 20 %.

At the global level, analysts predict that a long, weak cycle will continue to have a significant impact on the structure of FDI in the medium and long term. This is due not only to the negative impact of lower commodity prices on the FDI inflow in the extractive industry, but also the potentially positive impact on operations and FDI in other sectors, in case of lower production costs. Indeed, lower commodity prices support the global economy by stimulating or supporting the economic growth of the economies of the largest importers, including China, the European Union, India and Japan. The decline in oil prices is expected to contribute to the growth of 0.3 – 0.5 % of global GDP in 2018 [44]. Growth in company revenues in the manufacturing and services sectors contributes to a similar trend in international investment in these sectors. At the regional and national levels, the impact of lower commodity prices on the attracted FDI volume varies depending on the economic weight of the extractive industry compared to energy-dependent industries, as well as trading position when it comes to minerals and hydrocarbons.

FDI inflows to commodity-exporting countries, primarily from Africa, Latin America and the Caribbean, and West Asia are largely negatively dependent on extractive companies' revenues. The economies of countries whose exports and FDI inflows rely heavily on oil and metals are in a particularly difficult situation. In Latin America and the Caribbean, for example, FDI inflows in the oil and gas industry, primarily in Colombia and Ecuador, decreased by 66 % and 50 %, respectively, in 2016 in Africa (in the main exporting countries of metals, such as Guinea and Zambia), the volume of attracted FDI in the mining industry also decreased significantly. In Asian countries rely heavily on the extractive industry, the situation is similar. The rate of attracted FDI in Mongolia, which is largely dependent on mining, declined from 50 % of GDP to less than 5 %, which had a significant impact on the creation of new jobs and the country's economic growth.

In the short term, analysts predict a rather pessimistic picture of FDI spending over the next three years. Overall, about 40 % of executives expect their companies to increase FDI spending. While companies from developing and emerging economies are more optimistic about indicators than TNCs from developed countries, most expect to spend less (from 35 % to 24 %) in 2017. This trend reflects the challenging investment climate that TNCs are now facing, based in emerging economies.

However, the greatest difference in costs is assumed between different sectors of the economy. The absolute majority (60 %) of TNCs in the primary

sector – mainly oil, gas, and minerals – expect lower FDI expenditures this year, only one fifth of the respondents expected an increase. This can be compared with TNCs in the manufacturing industry and services, where no more than 20 % expect a fall and more than 40 % increase in both sectors. In addition, a sharp drop in prices and business activity in the primary sector, according to experts, will continue. By 2018, only 33 % of TNCs representing the primary sector of the economy expect large capital expenditures. The corresponding share of TNCs in the sphere of production and services is significantly higher – 52 % and 62 % respectively.

Based on a survey among managers of the world's largest corporations, the most promising and attractive sectors for attracting FDI to the country were identified. According to UNCTAD, the information and communications industry has been identified as one of the main promising industries in three regions – developed countries, developing countries in Asia and Latin America and the Caribbean (Fig. 3.8).

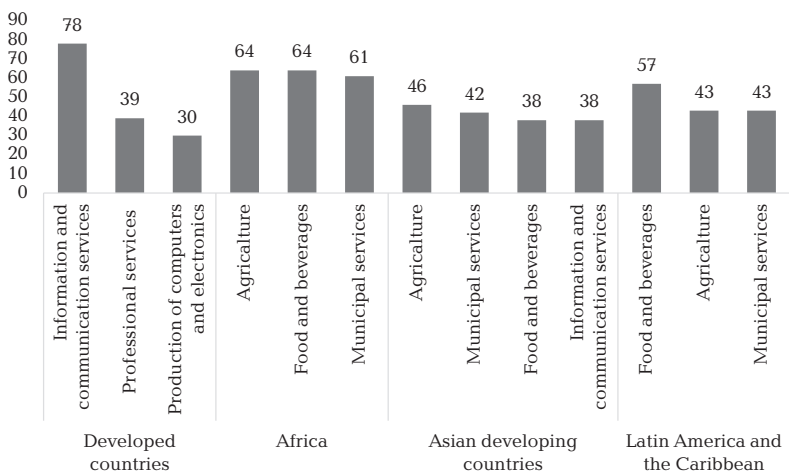


Fig. 3.8 The most promising areas for attracting FDI by region of the world, in %.
Source: compiled by the author according to [39–49]

Industries that are considered the most promising in each region reflect the regional level of development, the volume of available economic resources, as well as the level of niche specialization. Thus, in addition to information and communication, developed countries forecast significant investments in the professional services industry and computer electronics as among the most promising for attracting FDI, while for developing countries and emerging economies, the areas are most likely to be selected for investment is agriculture, food and beverage production and utilities.

For high- and middle-income regions, such as Latin America and the Caribbean, it is not surprising that food and beverages are considered a promising industry; but the choice of a different industry to invest in, which includes everything from jewelry to the production of medical equipment, which indicates that there is a significant degree of niche specialization in the region. Asian developing countries include a very large number of countries, with very different economic systems, from least developed countries to highly developed, technological, and rich countries. The most promising industries in this region reflect the overall diversity of countries' economies: agriculture (the main source of export earnings in some countries), utilities (necessary for the development of the region), food and beverage production (the consumer market in general) as well as the information and communication industry, both for the development of the industry itself and as a component of the region's complex specialization in global production networks.

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Chapter 4

Intellectualization of capital as a factor of strengthening of the competitive positions of international companies

4.1 Evolution of attitudes to the disclosure of the essence of the intellectual capital of an international company in the face of increasing competition

Carrying out a retrospective analysis of approaches to the content of the intellectual capital of an international company, it is appropriate to single out several theses that determine their particularity.

First, in the course of analyzing this problem, domestic and foreign researchers moved from the general (at the enterprise/company level as a micro level entity) to the specific (at the enterprise/cluster level of companies engaged in international activities in certain sectors and spheres of economic activity in various regional markets [38]). At the same time, several areas of analysis are considered: the influence of intellectual capital on the company's performance and cross-impact, including the number of intellectual capital through the general interaction of companies.

Secondly, the methodological development of a new type of enterprises in the era of the post-industrial era and the transformation of the national economic systems of the world avant-garde countries into information economies made a powerful impetus for the new direction of the organizational structure and the system of direct and reverse links between network companies both in domestic and foreign markets, and then updated in the development of an appropriate research direction.

Thirdly, additional impetus to the problems was given by the complications of the competitive conditions of companies in international markets, the variety of tools to achieve and consolidate competitive advantages in terms of relationships with both consumers and other contractors (suppliers, retail, joint investment, research and development partners, marketing projects etc.) [40]. The reorientation of international competition into the

sphere of intangible assets forces companies to adhere to a proactive strategy and implement permanent transformations. For many companies, the value of staff skills, information systems and organizational culture is several times higher than the cost of material resources. Such companies are able to maintain dynamic profitability, since they are guided by modernization approach to creating unique key competencies and enhancing the dynamic capabilities of external expansion. For the successful implementation of intra-company sources of competitive advantages (except for competencies), the company's dynamic capabilities become priorities in the information age, providing for the company's special activity in managing assets and competences (knowledge) in the context of permanent transformation of the external environment.

Fourthly, at present, despite a significant range of studies of this issue, there is no unified approach to the disclosure of the content and structure of intellectual capital, which indicates that there is a potential for scientific research in the future. Research directions and content of scientific developments of scientists in the field of intellectual capital is carried out through the intensification of interdisciplinary research, taking into account the multifactorial origin of the phenomenon of intellectual capital and the multichannel spectrum of its impact on various sectors of economic systems and economic activities.

Fifthly, the issue of nature, sources of formation and structure of intellectual capital has been the subject of development not only by theorists in theory, they are at the center of attention of practitioners-managers, experts in the field of public administration, as they directly relate to the formation of institutional conditions promoting innovative communication activities of international and national companies. The competitive advantage of a country as a subject of world economic processes directly depends on the location of global investment, intellectual, productive resources in its economic territory. A special direction of the macroeconomic aspects of the formation of intellectual capital is revealed by studies of the prerequisites and sources of financing the educational sphere as an environment for the formation of the country's global competitive advantages in the information age.

The first developments in the field of intellectual capital were carried out by representatives of neoclassicism in the 60s of XX century. So M. Friedman, outlining the potential of the problem and the structure of intellectual capital, singled out the so-called humanitarian capital in the composition of the company's assets, highlighting its features in comparison with other constituent parts of capital [22, p. 551]. In the future, this approach was transformed into the concept of human capital, representing the analysis of knowledge embodied in man and which contribute to creative work.

The concept of intellectual capital from the very beginning presented a wider range of factors that form the company's value, considering not only the knowledge embodied in man, but also the accumulated scientific

knowledge presented in new technologies, production techniques, databases, software, and relations with other economic subjects (consumers, suppliers, competitors).

A certain research breakthrough in the development of intellectual capital issues can be noted in the 90s. Twentieth century. A significant contribution to the development of the issue from the point of view of clarifying the content of intellectual capital as an object of research and highlighting its structural elements was made by foreign scientists and practitioners L. Prusak, D. Rus, K. Sveibi, T. Stewart, E. Toffler, T. Fortune, I. Hiroyaki, L. Edvinsson, as well as domestic researchers O. Kornukh, V. Porohnia, A. Kendiukhova, A. Chukhno and others.

In general, the genesis of the concepts of «intellectual capital» and «intellectual asset» in economic theory is associated with the desire of scientists to evaluate the role and specifics of intangible assets as one of the key determinants of the development of international companies. As the nature and vector of the influence of STP on the development of production, within the framework of various concepts and theories, economists formulated different interpretations of this concept, in particular, invisible assets, knowledge, basic competence, strategic assets, etc. This is due to the lack of a common understanding of this term. The concept of «intellectual capital» can be viewed in a broad (as the embodiment of all intangible than the company owns), or a narrow sense (as the amount of intangible assets that are reflected in the financial statements). In our opinion, in practice, intellectual capital should be understood as the amount of intangible assets and goodwill that are published by international companies in the financial statements, as well as those assets that are not reflected in the accounts for the imperfections of the intangible assets accounting system, but which cannot be ignored knowledge.

Based on the analysis of professional monographic and journalistic literature, the following approaches to the disclosure of intellectual capital issues can be distinguished:

- micro-and macroeconomic approach;
- terminological approach;
- morphological approach;
- approach taking into account the resource (Resource – Based View) and expenditure concepts.

In the measurement of microeconomic analysis, scientists understand intellectual capital as not only scientific personnel (intellectual elite), but also factory marks, trademarks, and even some tangible assets recorded in accounting with their value [12, p. 11]. In the works of other authors, an even broader interpretation of intellectual capital is found, including such factors as leading positions in the use of new technologies, continuous staff development, and even efficiency in fulfilling customer requests [20]. From the standpoint of microeconomics, like any other factor of production, intellectual capital is an important source of value added and enterprise

profits. Value added is considered in the context of the result of the use of new business opportunities, new markets, production of new products, increasing the efficiency of using existing assets, saving costs. The main function of intellectual capital is to significantly accelerate the increase in the mass of profits due to the formation and implementation of the necessary knowledge systems for an enterprise, ensuring its activities with a high level of productivity. Some researchers call this «value added information», others – «knowledge rent», «intellectual rent» [39].

Taking into account macroeconomics, knowledge of how intellectual capital determines the level of a country's economic development in the future, becoming the engine of economic growth. A significant role is played by the newest approaches to understanding the concept of intellectual capital in the public sector [24]. Some domestic scientists directly link the level of development and the scale of intellectual capital with the state of the country's economic security [3]. In particular, it is determined that a way out of a systemic crisis and increasing the competitiveness of countries from a group of states with a transformational economy is possible in the case of the effective realization of intellectual potential and the formation of intellectual capital. At the same time, it is proved that potential and intellectual capital create a positive difference in a country's potential and is a source of economic growth of balanced indicators of a country's activity, and their correlation determines its development rates and, accordingly, the level of socio-economic security. Another aspect of the development of intellectual capital at the macro level is revealed in the works of Belarusian scientists, in particular, the role of information and the processes of formation of the information society are assessed taking into account their impact on the intellectual capital of the nation. Quite interesting is the direction that reveals the features of the implementation of intellectual capital at the level of the public sector [24, p. 260].

We are convinced that micro- and macroeconomic approaches to disclosing the content of intellectual capital do not contradict each other, but rather we can talk about the possibility of achieving a synergistic effect if the basic prerequisites for the formation of intellectual capital components at the micro level with favorable institutional conditions for increasing whole. Therefore, intellectual capital can be described as a kind of social relations that expresses the socio-economic form of the intangible value, the bearer of which are intellectual values. These intellectual values in terms of certain property rights are able to accumulate through investment, be productively used to obtain current income or income in the future.

The terminological approach assumes the variability of consideration of the very concept of intellectual capital, while theoretical studies are carried out in the direction of identifying identities or differences between a number of terms through which reveal the essence of intellectual capital. Scientists use a wide range of synonyms to define it, for example, intangible

assets [5], intellectual resources [9], intellectual property, intellectual assets, etc. [32]. The emergence of a variety of terms is explained, as N. Bontis and D. Kristandl rightly assert, by a large number of scholars studying this topic who want to consolidate their own terminology [32, p. 1511]. In particular, according to their conclusions, the researcher K. Subing generally identified the concept of intellectual capital and intangible assets, to which he reduced the set of individual competencies, the internal structure of the company and its external structure. However, it is noticeable that the list of components of intellectual capital, considered by the author from the standpoint of its essential features, goes beyond the intangible assets of the company. A comprehensive analysis of approaches to the relationship between intellectual resources and the intellectual capital of an enterprise was carried out by Russian researchers G. Shvidanenko and I. Guseva [10], who showed that intellectual content is a broader concept and absorbs intellectual capital, including other intangible assets. Intellectual capital in the interpretation of L. Edvinsson and M. Malone is identified as a derivative of intellectual resources. At the same time, they indicate the conditions for the transformation of intellectual resources into intellectual capital – their inclusion in the economic turnover, their consumption takes place, and then products with an intellectual component are created [17].

The resource (Resource – Based View) concept of the interpretation of intellectual capital, certain aspects of which can be found in the works of J. Tis, G. Pisano, E. Shuen, N. Bontis [15], is based on the aspect that in the modern economy built knowledge-based economy, companies are faced with new business conditions and industries. Capitals move to areas based on knowledge creation, the share of intellectual capital in creating value added goods increases, the company's market value is as a result estimated, given the quality of its intellectual resources. Companies to achieve the desired parameters of economic growth have to disclose all new forms of capital, develop those components of the resource base that can become its competitive advantages with effective management, along with other components, as well as the competences of the company. Intellectual capital as a resource must have the following VRIN properties:

- valuable – resources must create value for the company;
- rare – resources should be relatively unpredictable, unique and difficult to access for competitors;
- be inimitable – the risk of copying resources by competitors should be minimal;
- non-transferable – competitors should not have similar resources.

Thus, intellectual capital is a strategic resource of an enterprise that possesses VRIN properties and allows creating sustainable value [32].

Now, in conditions of both domestic and international competition, a company can achieve success only if it actively improves the intellectual components of its resource portfolio, namely, continuously accumulating

organizational knowledge (corporate intelligence), transforming the experience and skills of employees in the form of new technologies, products and services, business processes and solutions, organizational structures and the like. Therefore, from the standpoint of the resource approach, intellectual capital can be viewed as a unique resource from the effective management of which, the company expects to receive super-profits.

The cost approach (T. Stewart, K-E. Sveiby, L. Edvinsson, M. Malone) represents the consideration of intellectual capital from the position of the final benefits that companies can get from its use. At the same time, intellectual capital does not have an independent value, but is a factor of production capable of producing such value. Intellectual capital, from this point of view, generates a higher cost, and a company that owns intellectual resources receives a value increase through the effective use of its intellectual resources. At the same time, there are a lot of scientists, including L. Edvinsson understood by this term the difference between the market and book value of the company [11, p. 152]. Further studies have shown that the increase in value may be caused by factors that are not unrelated to intellectual capital, in particular distortion of the valuation of the tangible assets of an enterprise, changes in the sovereign credit rating of a country, which affects the rating change, and then value of assets, including tangible, enterprises and companies subject to the relevant national jurisdiction.

According to the morphological approach, then we are talking about the disclosure of the content of intellectual capital through its structure. Now the most common are the structures proposed by E. Brooking and T. Stewart.

According to the proposals presented in the book of E. Brooking [1], it is divided into four components – market assets, human assets, intellectual property as an asset and infrastructure assets. A market asset is a definite vision of the market and its representatives of intangible assets of a company. For example, customer loyalty to the company's brand. Human assets are a combination of the experience, skills and knowledge of all employees of an organization.

Intellectual property in its most common form is personified in patents, licenses, copyrights, etc. Infrastructure assets are those assets that account for the organization of business processes and communication between employees and departments. They also include corporate culture and databases.

The structure of intellectual capital proposed by T. Stewart [7, p. 89] consists of three components – human, structural and consumer (client) capital. Human and structural capital is similar in terms of the respective components of human and infrastructure assets proposed in the E. Brooking classification. By consumer (client) capital, it refers to relationships with various groups of agents, for example, consumers, creditors, suppliers, owners.

In the future, most researchers were guided by this approach, focusing on human capital, as well as internal and external intellectual resources of the company (L. Edvinsson, M. Malone, E. Brooking, A. Motta, etc.).

In a more systematic form, the scheme of intellectual capital developed by L. Edvinsson and M. Malone [17]. In intellectual capital, they clearly distinguish between two large components: human capital and structural capital, which determine their content. In the economic literature, this structure of intellectual capital is recognized as the most fundamental. The first element is embodied in the company's employees or their teams in the form of knowledge, experience, skills, competitive properties, opportunities for personnel innovation, as well as in the general culture, philosophy of the company, its internal values. Human capital, according to L. Edvinsson, is «the totality of knowledge, practical skills and creative abilities of employees of the company, applied to the implementation of current tasks. Its other components are the moral values of the company, the culture of work and the exchange of opinions, investment in training, employee skills». The second component, the so-called structural capital, is revealed through organizational capital (all resources that support the company's current activities) and relationship capital (relations with companies, suppliers and other contractors of the company). Organizational and capital relations together form the structural capital, moreover, these components are directly and inextricably owned by the company, while human capital does not belong to it, and therefore its carriers are personnel, can at any time leave Enterprise structural capital (organizational strategy and culture) is more sustainable and generally independent of labor. Now the morphological approach to the disclosure of the content of intellectual capital has a significant circle of followers. The generalization of the most authoritative research on the structure of intellectual capital can be represented as a Table 4.1.

It is important to note that despite the formal differences in the names of the elements of intellectual capital, the views of researchers coincide in the fact that each component can be evaluated and adapted for investment. The scientific mentions mentioned above by I. Roos, S. Pike, L. Fernstrom [5] presented this as the interaction of components in the form of a resource tree, highlighting relationship capital (customers, suppliers, partners, associations, market channels, sources of new knowledge), organizational capital and human capital (education, qualifications, employee competencies, attitudes, intellectual flexibility). Organizational capital is formed by components directed inward (management business processes, organizational structure, information systems in databases, software), as well as components directed outward (brands, trademarks, service offers, product concepts, patents, copyrights).

It was with the intensification of the competition of companies for customers, expanding the range of their expansion from domestic to external markets, led to a theoretical synthesis of certain processes by scientists and practitioners. The term «client capital» was first introduced into scientific circulation in 1993 by H. Saint-Onge. He interpreted client capital as the totality of all customer relationships defined by depth (penetration or

share in the company's revenue), width (coverage and market share) and profitability of the relationship of the organization with all its customers. Since the researcher considered client capital as part of intellectual capital along with structural and human capital, he argued that the development and increase of each of the elements of intellectual capital are impossible separately from each other. In his opinion, when studying the processes of forming client capital, it is necessary to take into account the principles of the functioning of structural and human capital. In the future, this line of research within the framework of research on the intellectual capital of companies was developed in the works of such foreign scientists as C. Armstrong, G. Getz, J. Thomas, R. Rast, V. Zeithaml, K. Lemon, D. Hassens, J. Vilanueval, S. Gupta, E. Payne. In particular, E. Payne was one of the first to identify and systematize the main sources of the formation of client capital, describing the process of creating the values received by the client and the company. In his opinion, the production of added value can only occur with an effective and mutually beneficial transfer of values between the client and the company.

Table 4.1 Classification of intellectual capital in the framework of the morphological approach

Author	Classification
L. Edvinsson, M. Malone [17]	– human capital; – structural capital
M. Adams [12] L. Golovkova [3] N. Tikhomirova [8]	– intellectual capital of the enterprise; – intellectual capital of the country
N. Bontis [15] T. Stewart [7]	– human capital; – structural capital; – customer capital
H. Saint-Onge [47] J. Roos [45] J. Roos, S. Pike, L. Fernstrom [5]	– human capital; – structural capital; – capital of relations
K-E. Sveiby [53]	– staff competence; – internal structure; – external structure
C. Leana, H. Van Buren [36]	– human capital; – innovation capital; – process capital; – customer capital
D. O'Donnell, P. O'Regan, B. Coates [42]	– human capital; – internal structure; – external structure

An important, in our opinion, aspect of client capital in the context of the activities of international companies was identified in 1996 by R. Blattberg and J. Deighton as a marketing asset. The studies of these authors were applied rather than theoretical and focused on analyzing client capital from the standpoint of determining the optimal investment in acquiring and retaining customers. They based the methodology for assessing and accounting for customer capital. In the period from 2000 to 2005, R. Rast, V. Zeithaml, and K. Lemon [33] contributed to the development of the theory of client capital, highlighting and substantiating its components (value, brand equity and relationship capital) [30].

Assessing the contribution of these researchers to the deepening of the theory of intellectual capital, we note key aspects of the formation of sustainable competitive advantages of enterprises in foreign markets using individual components of intellectual capital.

The commitment of the foreign consumer to the relevant brand or products of the company that is not a resident of the country of origin is based on the development of such key competencies of an international company as:

- system of customer relations as a resource component of capital relations, combines with the company's ability to provide a high level of service in terms of its presence in the foreign market or transfer of relevant functions/powers to the local market operator, which represents the interests of an international company, as well as a combination of market channels, provides access to a foreign consumer;
- product concepts of the company and service offers as resource components of the structural capital, combined with the ability to offer a differentiated product that meets the needs and requirements of consumers of the relevant foreign market.

The reputational advantage of an international company can be achieved by:

- improvement of such resource components of structural capital as a brand (global, regional, local), as well as the company's ability to ensure a high level of loyalty to its international brand through such behavioral and organizational processes as relationships with society, maintaining a stable level of consumer value of the product, ecological production, social responsibility and the like;
- establishment of trusting and mutually beneficial relations of the company with its owners (shareholders), investors, insurers, customers, employees, intermediaries, suppliers and other partners. Therefore, we should talk about the development of resources based on relationships and form additional capabilities of the enterprise.

The international marketing environment in which companies operate is characterized by uncertainty and asymmetry of market information; at the same time, they (companies) are able to influence them and then

minimize the risks associated with turbulence and uncertainty. Thus, in particular, a high level of consumer uncertainty regarding the quality of certain groups of goods may stimulate companies to expand the range of specific guarantees that, in turn, affect the uncertainty of consumer responses of a particular foreign market. The brand is such a key guarantee and signal for the market. The reliability of the signal is especially important in the face of uncertainty of the international environment, because it increases the consumer's perception of the quality of a product that comes from a different national environment, reduces the perceived risks (functional, financial, physical, psychological, social).

Innovation as a sustainable competitive advantage of a company in the turbulent international business environment is achieved by improving such organizational (structural) resources and capabilities of an enterprise as innovative organizational processes, patent protection, information and organizational systems, combined with the company's ability to successfully introduce technological and organizational innovations and conduct organizational training in the company.

Better operational efficiency, namely a lower cost component of the product, lower costs, lower prices with comparable quality, is achieved due to:

- development of human capital components, namely the competence of personnel – mental abilities and abilities to process information, as well as intellectual flexibility – the ability to innovate, to imitate and adapt.
- improving the efficiency of organizational processes and the effective structure of the company, that is, by improving the resource components of the structural capital.

Terms of operation of international companies in the XXI century were reflected in the theoretical studies of a number of researchers on the accelerated growth of personalization of corporate goods and services compared to price competition [50]. Companies are forced to form close relationships with consumers in order to win as many supporters as possible and maintain their loyalty. Scientists note that increased competition, improved network technologies and global outsourcing stimulate further business specialization [21]. Networks of suppliers and partners are becoming more complex and complex, increasing the value of effective cooperation both between companies and within them [34]. The authors formulate theoretical conclusions based on the generalization of successful experience in using global outsourcing through information technology (ITO) and business process outsourcing (BPO). This provides a basis for predicting their trends in the size and growth of the ITO and BPO markets at the global level, strengthening the role of suppliers, integrated into global value chains, and deepening the specialization of individual links through the differentiation of cooperation models.

An interesting aspect in the development and deepening of the theory of intellectual capital is the newest areas of research, which consider the

potential for improving the resource components of structural capital in the direction of transforming competitive relations between companies [31], increasing coordination between direct competitors due to their common interest in developing infrastructure and institutional prerequisites for functioning business [37, p. 496]. This is most clearly manifested in innovation-oriented high-tech sectors, when competing firms are often obliged to work together in large multi-firm forums to develop technical standards that ensure compatibility between their products. Products and processes are easily reproducible; automation of simple operations and transactions has become widespread. Companies are already trying to differentiate their functions through personal interaction, meeting the needs of consumers and partners. Traditional functions such as high-quality investment advice from financial institutions, energy efficiency, and the quality of goods and services will be less important than various forms of interaction. Thus, growing cooperation will become a distinctive feature of companies in the near future, and then the problem of forming and managing the company's client capital becomes even more relevant.

The interaction of suppliers and sellers, sellers and buyers, company employees with each other, companies and partners is an increasingly important source of competitive advantage. Such a transformation in the practice of managing intellectual capital is also reflected in the theoretical studies of scientists. If in the past, the investment and intellectual capital management system focused on improving managerial and administrative efficiency, now, according to experts and scientists, it will increasingly shift precisely in the field of knowledge management, since the needs of companies for infrastructure investments (automation of basic management and administrative operations, security, etc.) are largely satisfied. And scientists and directors of companies believe that the improvement of knowledge management technologies is the most important means of increasing productivity in the next 15–20 years.

Such technologies are concentrated in three areas: new means of interaction and communication; new means of storing, filtering and recovering information data; finally, decision-making tools that expand the capabilities of employees with specialized knowledge [26].

Another important aspect in theoretical developments on the content, structure and determinants of the development of the intellectual capital of companies is the recognition of the importance of the multiplier effect from the combination of the corporate and institutional prerequisites for their implementation. In a whole series of studies, scientists, considering the dynamics of competitive advantages of national business in international markets, come to the conclusion that there is a direct relationship between the drivers of increasing intangible assets at the level of companies and the nation as a whole and politics, thereby achieving the development of their competitiveness [25]. Let's note also that researchers, considering the role

of the institutional factor in the development of intellectual capital at the micro and macro levels, focus on the reverse impact on the role of dynamically growing intellectual capital in the competitive business environment, achieving additional positive external effects on welfare and the like. Therefore, there is an urgent need to combine managing the transformation of intellectual and structural changes as a prerequisite for enhancing the competitive advantages of business and the country as a whole [45].

Analysis of the evolution of approaches to the disclosure of the content and nature of intellectual capital, which was carried out on the basis of developments of domestic and foreign scientists shows that:

- the developments were of an interdisciplinary nature, in particular related to the problems of companies' behavior under conditions of uncertainty and turbulence of the external environment, strengthening the weight of competitive advantages based on intellectual resources, evaluation of intellectual resources as expenses or a factor of increasing value added, marketing aspects of companies in foreign markets and that like;
- the logic of analysis of individual components of intellectual capital and their interaction allowed the majority of researchers to come to the conclusion that only in the aggregate and their interaction, the resource components of intellectual capital can contribute to the creation of a system of its sustainable competitive advantages.

The generalized conclusion that follows from the analyzed approaches to the interaction mechanism, priority and subordination between the individual structural components of intellectual capital is also the statement that the combinatorial nature of key competencies is based on the interaction of human and organizational capital. This is due to the fact that the personnel of key competencies are personnel, and the condition for their development is the interrelation of knowledge and skills of employees and innovative technologies, information systems, corporate culture and other factors). The quality criterion of their use is the quality of capital relations, since the indicators of the development of key competencies are the satisfaction and loyalty of the company's stakeholders and its investment attractiveness.

4.2 Determinants of the increasing importance of intellectual capital in the management of international companies

At the present stage of development of the world economic system, the success of international companies is increasingly associated with the effectiveness of managing their intellectual capital. J. Kendrick notes that in economics, the current ratio of material resources to intangible is 30 %: 70 %, whereas at the beginning of the XX century this proportion was 63 %:

37 %, and the results of research by scientists from a Malaysian university (MMU University, Malaysia) showed that the market value of some international companies is almost 6 times higher than their book value [48].

Intellectual capital management is a concept that includes the identification of intangible assets and the assessment of their relationship to the current and future value of the company. The solution of this task involves a systematic review and improvement of the set of intangible assets in terms of determining its priority components in the context of maximizing the value of the company.

Issues of increasing the efficiency of the use of intellectual capital in recent years are in the focus of research of both scientists and government institutions in different countries. The study on the role of intellectual capital in the activities of international companies has a wide geography and differs by sectoral specificity of the studied companies, the size of the statistical sample, time periods, methods used, interpretation of results, etc. It is significant that in most cases the results of research confirm the significant impact of intellectual capital on the results of the companies regardless of their nationality and scale of activity. About international companies, to one degree or another, they all make efforts to improve the efficiency of the use of intellectual capital. Identification and management of intellectual capital is becoming a strategic task not only for individual companies, but also acquires national significance. Examples of government involvement in this activity include the operation of the Intellectual Capital Center in Scotland, measures by the Japanese Department of Commerce and Industry, cooperation by US ministries with the Institute of Knowledge Management, the development of national intellectual capital management standards – Danish, European, Australian regulations, etc.

In conditions when intangible resources form up to 80 % of the cost of developed market economies, the formation of reporting standards for the use of intellectual capital becomes of strategic importance. At the corporate management level, the lack of unified reporting standards leads to the dispersion of intellectual resources and the fallacy in assessing the strategic potential of international companies. It is necessary to point out the existence of the idea of the inexpediency of displaying intellectual capital in company accounts, since this may lead to the risk of its copying by other competitors. In our opinion, standardization (both nationally and internationally) of the requirements for the representation of intellectual capital in corporate reporting, on the contrary, contributes to a significant reduction in these risks. Companies that become subjects of displaying unified information according to the same standards have the opportunity to document their competitive intangible advantages, form an effective communication model with stakeholders and prove their intellectual property rights in the event of a dispute. Therefore, there is no doubt that reporting on intellectual resources, which form the core of the company's core competencies and

is a source for creating its added value, is in the interests of both the company and the national economy as a whole.

One of the determining obstacles to the voluntary disclosure by many companies of information on the use of intellectual capital is the outdatedness of the existing methodological support. For example, in the United States, the Securities and Exchange Commission (SEC) and the Financial Accounting Standards Board (FASB) concluded that the unification of standards for the disclosure of companies' intellectual capital should be preceded by tools for the formation of relevant reporting.

Also, the development of uniform reporting standards for intellectual capital is complicated by the presence of two approaches to its development and presentation of results. The first approach involves reporting on limited and regulated components of intellectual capital, incorporated into the company's overall financial statements. Its obvious advantage is the formalization of the results of intellectual capital, and the disadvantage is the limited reporting information and the impossibility of quickly adapting to market changes and the needs of stakeholders. The second approach is based on the methods proposed by scientists, consulting institutions and the companies themselves. At its core, this approach is much more adapted to the requirements of the market and specific sectors of the companies, but it is variable and standardized.

The approach to reporting on intellectual capital, incorporated in the general financial statements of companies, allows us to provide information about the most materialized («hard», identified) assets in the composition of intellectual capital – intellectual property and structural capital. The report on the most intangible («soft», unidentified) assets is implemented by providing information about the business reputation (acquired goodwill). The changes in accounting and financial reporting standards in 2001 oblige US companies not only to report on acquired intangible assets and goodwill, but also to re-evaluate them regularly. The need for a separate definition and assessment of acquired and internally developed intellectual capital predetermines the main difficulties in the use of incorporated intellectual capital reporting. Changes made in the USA on 30.06.2001, The Council on Financial Reporting Standards for Reporting Acquired Intangible Assets obliges companies to report goodwill separately from the identified intangible assets (brand, patents, contractures). Goodwill is considered as a synthesis of other unidentified elements that are associated with the company's profitability potential – in particular, corporate image and customer loyalty.

A separate problem in the formation of incorporated accounting of intellectual capital is the question of the reflection of the value of human capital and capital relations. It is in the context of an attempt to solve this problem that the second approach to reporting on the management of intellectual capital, which represents the various systems for its assessment and monitoring, has been strongly developed. This, in particular the tool of the

Swedish company Navigator Scandia [19], the monitor of intangible assets K-E. Sveiby [54], R. Kaplan and D. Norton's balanced scorecard. Despite the fact that these and similar systems provide transparency, relevance and adequacy of information, they are far from common standards for assessing and measuring the company's intellectual capital. On the other hand, such systems have ample opportunities for personalization and adaptation to the specific strategic goals of the company, the sectoral specifics of its activities and changes in the market environment. Let's consider the experience of building and using intellectual capital accounting systems in the United States, Sweden, Denmark, Canada, Australia, and Europe.

US Experience in Intellectual Capital Management Reporting Standards.

In the activities of American companies, it is common to use the system of scientific and technical indicators of the Technology Department of the Ministry of Commerce (Science and Technology Indicators). These indicators include input indicators characterizing the efficiency of the use of intellectual capital in terms of expenditures on research, innovation, patenting, and hiring personnel. The openness and publicity of these reports provides an opportunity to coordinate the goals of economic development of individual states, informing potential investors and all interested parties.

Similar to the aforementioned system of scientific and technical indicators is the New Economy Index developed by the Progressive Policy Institute of the United States, which provides a basis for comparing the success of individual states in terms of the education level of the workforce, the number of employed in the high-tech sector, patents, etc.

The innovative index of the private company CHI Research, which is determined on the basis of indicators characterizing patent policies of companies, the average duration of technological cycles, etc., has also become popular. CHI indicators are used by many analysts and investors to compare the effectiveness of managing intellectual capital of various companies.

Canadian Experience in Intellectual Property Management Reporting.

The Total Value Creation Method (TVC) method developed by the Canadian Institute of Accountants provides for the calculation of the current value using the discounted cash flow techniques. The TVC method provides four sections for reporting companies to create total value using intellectual capital:

- 1) Strategy of the organization to create and implement value;
- 2) Discounted cash flow of expected future value;
- 3) Report on the potential of the company to create the expected cash flow (opportunities, infrastructure, network);
- 4) Report to stakeholders on financial and non-financial performance of the company.

Danish customer value creation guide based on company knowledge.

The Danish leadership [43], developed on the basis of the results of the cooperation of the Danish Ministry of Trade and Industry with 17 Danish

companies, recommends that companies prepare reports on the management of intellectual capital from the following sections:

- goals and benchmarks of knowledge management – determines the role that intellectual capital plays in creating the company's product, taking into account the needs of consumers, market trends, special production requirements;
- management challenges – long-term tasks and problems arising in the company in the context of managing intellectual capital and the impact of the results of this management on consumers, employees, processes and technologies;
- reporting – describes the initiatives and actions taken by the company's management in order to solve the set tasks and overcome management challenges using the system of indicators, means of graphical synthesis and interpretation of results.

The system of indicators, which is used by the Danish leadership, is similar to similar systems Navigator Scandia and Celemi, and provides the ability to report on two standards (models). Model A uses summary indicators for reporting on intellectual capital management in the context of influencing consumers, workers, processes and technology. Model B illustrates the progress that the company has made in addressing management challenges separately for each of the specific components.

Australian Intellectual Property Management Guide.

The Australian Guiding Principles on Extended Performance Management [13] (Extended Performance Management, 2005), developed by the Australian Society for Knowledge Economics, group the company's performance indicators into the following categories:

- stocks, which include indicators characterizing the size and types of the company's intellectual resources;
- investments, which contains both capital and resource (temporary, energy, information, etc.) investments;
- effects, which include indicators describing the possible effects of investments in intellectual capital relative to customers, employees, stakeholders, etc.

Definition of specific measures for managing intellectual capital based on extended performance indicators is carried out by determining the ratio between the strategic goals of the company as a whole and the strategic goals for each component of intellectual capital (structural capital, human capital, relationship capital). The obvious shortcomings of the proposed approach include the possibility of conflict in determining the indicators in groups of stocks/investments/effects, as well as the difficulty of determining the isolated effect of specific actions. Thus, increasing customer satisfaction can be an integrating result of several initiatives (product improvement, advertising support, innovation in promotion, etc.), which makes it difficult to prioritize investments in one or another component of intellectual capital.

European instruction on the reflection of intellectual capital.

The Intellectual Capital Statement (InCaS, 2003) project [28] was created on a partnership basis by 25 European companies, 6 business associations, research institutions and independent experts to strengthen and develop the innovative potential of European companies. The European reporting instruction is based on the idea of the relationship of intellectual capital with corporate goals, business processes and performance results (Fig. 4.1).

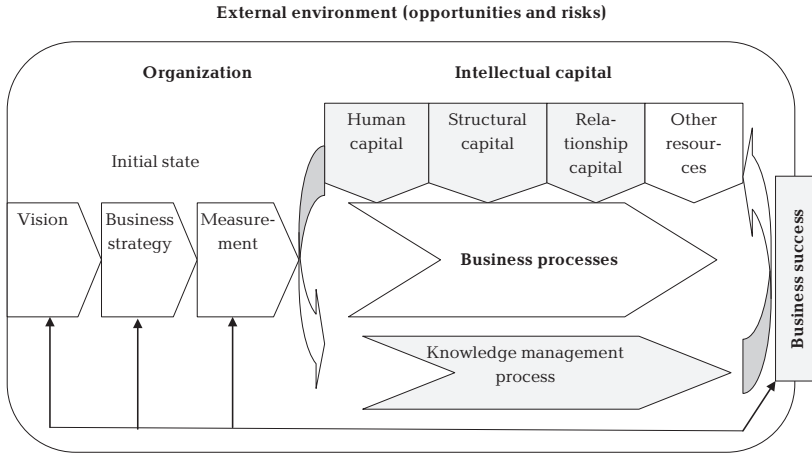


Fig. 4.1 Intellectual Capital Statement (InCaS) model [27]

According to the InCaS structural model, the effective use of intellectual capital plays a leading role in the system of management decisions aimed at the implementation of the company's strategy.

The central category of European leadership is the «maturity level of the company», which depends on a number of company characteristics (corporate culture, size, life cycle stage, etc.) and affects the choice and effectiveness of the use of intellectual capital assessment techniques.

Summarizing the analysis of national standards for reporting intellectual capital management, one should point out the existence of global initiatives in this area. These are, above all, the so-called standards of social (non-financial) reporting. The practice of social reporting has been introduced by leading global corporations since the late 1970s in order to strengthen the business image of the enterprise and increase its investment attractiveness. Modern social initiatives, however, determine the profitability of companies and their commercial success. In modern foreign practice, social reports of corporate structures are created in accordance with international or national standards that regulate the content of the report, its structure, the procedure for collecting data and processing it.

Currently there are about 20 different non-financial reporting standards. The most widely used four standards: ISO 14000, SA 8000, AA 1000 and GRI. ISO 14000 is a standard for environmental protection measures; SA 8000 is a global standard that focuses on relationships with respect to the established standards of employer responsibility in the area of working conditions; AA 1000 is aimed at streamlining the company's social initiatives and increasing their efficiency. Popular in the business community are the principles of social responsibility, developed by the international organization Global Reporting Initiative (GRI) on sustainable development, prepared by the Global Reporting Initiative (GRI). Today, GRI has de facto become the standard in determining the framework conditions for the preparation and indicators of non-financial reporting. The GRI reporting system provides companies with the basis for disclosing information on their sustainable development results. This system is used by companies of any size, type and location. It is constantly being improved and expanded as it accumulates experience in reporting and changes in both the needs of companies that report and the audience of reports. And although before reporting under the GRI standard (as well as other non-financial reporting standards) has a social purpose and orientation, it contains many indicators that give an idea of the state of management of the company's intellectual capital (qualification of personnel, relationships with stakeholders, level of satisfaction with clients and clients and etc.).

National and global reporting standards for the use of intellectual capital based on indicator systems are systematized in Table 4.2. It should be noted that the current trend is the interstate integration of efforts to transform intellectual capital into the results of companies' activities, create positive external effects and ensure unified standards for the display of intellectual capital in companies' reports. In contrast, reports on the use of intellectual capital are incorporated, various systems for its assessment and monitoring have become widespread in the field of intellectual capital management. The advantage of this approach is the ability to assess the effectiveness of using such immense and financially immeasurable components of the company's intellectual capital as human capital and capital relations. Its main disadvantages can be considered obsolescence, excessive diversity and subjective nature of the methods. Despite the fact that the value drivers based on intellectual capital will differ depending on the industry specifics, national characteristics, size of companies, etc., a definite standard (universal) list may be defined. Let's return to the question of determining such universal objective indicators, for the time being we note that the general requirements for intellectual capital reporting standards based on a system of universal indicators can be considered:

- ability to visualize the relationship between the value of intellectual capital and the results of its use in the company;
- quantitative nature of the indicators to be evaluated and measured;

- possibility of ensuring the systematic nature of observations on the dynamics of indicators;
- overcoming the information asymmetry in the formation of the relationship between internal and external stakeholders.

Table 4.2 National and global reporting standards for the use of intellectual capital based on indicator systems

Standards	Country (group of countries)	Reporting Standards
National Reporting Standards	USA	The system of Science and Technology Indicators of the Technology Department of the Ministry of Commerce. New Economy Index of the Progressive Policy Institute. The innovative index of private company CHI Research
	Canada	Total Value Creation Method (TVC)
	Sweden	Skandia Navigator Model [18]
	Denmark	Danish customer value creation guide based on company knowledge [43]
	Australia	The Australian Guiding Principles on Extended Performance Management (Extended Performance Management, 2005) [13]
	EU	Intellectual Capital Statement Project (InCaS, 2003) [27]
Global Initiatives (non-financial corporate reporting standards for intellectual capital management)		SA 8000 is a global standard that focuses on relationships with respect to the established standards of employer responsibility in the field of working conditions. AA 1000 – a standard aimed at streamlining the company's social initiatives and increasing their efficiency ISO 14000 is an international standard containing requirements for a company environmental management system GRI (Global Reporting Initiative) acts as a basis for companies to disclose information on their sustainable development results

Source: developed by the author

In our opinion, the best opportunities in terms of meeting certain requirements are created by using the European Intellectual Capital Statement (InCaS). The reporting algorithm in accordance with the European InCaS standard is based on the classic idea of the structure of the company's intellectual capital, according to which the components of the intellectual capital are human, structural and capital of relations. The components of intellectual capital are estimated by a number of attributes:

- human capital (HC): professional competence (HC1), social competence (HC2), employee motivation (HC3);

- structural capital (SC): corporate culture (SC1), internal cooperation and knowledge sharing (SC2), information technology and explicit knowledge (SC3);
- capital of relations (CR): relations with clients (CR1), relations with investors (CR2).

Each of the attributes is characterized by quantity, quality and level of use (the presence of system management). Attributes are evaluated by experts subjectively, based on their understanding of the current (X %) and the desired value (100 %) of the arithmetic mean of these attributes. The result is a definition of «improvement potential» for each of the attributes, which shows how much the current value differs from the desired one. After that, experts fill in the Impact scoring matrix, in which the same attributes of intellectual capital are assessed according to their degree of influence on the achievement of the company's strategic goals ranging from 0 (no impact) to 3 (exponential). The final step at this stage is to build a matrix in the coordinate system «Improvement Potential – Impact on Performance», each quadrant of which defines the company's intellectual capital management strategy depending on the combination of these two characteristics (development, stabilization, analysis and lack of intellectual capital).

The issues of evaluating the attributes of intellectual capital are solved by choosing the indicators that best describe the recommended amount from 2 to 6 for each attribute. As such indicators can be used, for example: employees with higher education (characteristic attribute HC1), the number of loyal customers (characteristic attribute CR1), etc. The general recommendation of the European InCaS project is a selection of indicators of intellectual capital attributes that can be embedded in the overall system performance indicators of the company.

Detailed recommendations on the use of the European accounting standard for intellectual capital are presented on the InCaS project website [28]. Also on the project site it is possible to find sample reports on the InCaS standard of a number of European companies and organizations, in particular: Business and Development Learning Institute BDL (educational activity, France), BGME (audit and consulting, France), EBS Esperance (recruiting, France), PROJIRIS (project and risk management, France), Balance Technology Consulting (customized software, Germany), Malergesellschaft Bethel (outsourcing, Germany), Helmut Beyers (electronic manufacturing service, Germany), JRC Capital Management Consultancy and Research (management consulting, Germany), Pass Stanztechnik AG (production of instrument, Germany), ARR Dotacje I Szkolenia (management consulting, Poland), Garten Polska Siec Sklepow Retro (seasonal supplies, Poland), NEXBAU mgr inż Roman Bauta (production of windows, Poland), Blooming Technologies (telecommunication and information technologies, Poland), ZAK (advertising and printing, Poland), Glotta Nova (educational activities, Slovakia), INO Brezice (agriculture, Slovakia), Inter diskont (trade

in non-food products, Slovakia), Le-Technica (software, Slovakia), Technological Institute of Optics, Color and Imaging (educational activities, Spain), Formacion Digit (management consulting, Spain), SIDASA Engineering Business Unit (engineering, Spain), SISTEPLANT (engineering and software, Spain), VERTISUB (industrial product distribution, Spain). It should be noted on several general characteristics of the reporting of European companies, presented on the website of the InCaS project. First, the reporting is mainly for companies that operate in sectors of economic activity, for which the issue of effective intellectual capital management is crucially important – information technology and software, management consulting and outsourcing, educational activities, and others. Second, reporting provided is outdated and is primarily of an introductory (demonstration) nature. Finally, enterprises whose reports are formed according to the InCaS standard and are presented on the project website mainly belong to companies that belong to the small and medium-sized business sector and do not have international status. In our opinion, the standard provides ample opportunities for high-quality and transparent reporting on intellectual capital, including international corporations, but certain adaptation is necessary and taking into account the specific characteristics of the activities of international companies.

In the context of the development of the methodology of the InCaS standard and its adaptation to use in the activities of international companies, the use of such a management analysis tool such as a morphological matrix may be proposed. The construction of the morphological matrix as a result of using the method of morphological analysis, which was proposed by the Swiss astrophysicist Fritz Zwicky in order to find possible solutions to the management problem by breaking it into separate attributes and combinations of possible realizations of these attributes. The idea of morphological analysis is a systematic study of all possible solutions to a particular management problem and the selection of critical parameters that most influence its solution. The morphological matrix of reporting on the company's intellectual capital based on the InCaS standard, taking into account the proposals of the author, are presented in Table 4.3.

If the final assessment of the company's intellectual capital is designated by the variable IC, then, according to the requirements of the European InCaS standard, it can be characterized by evaluating the use of the intellectual capital component in two coordinates – the potential for improvement (X -coordinate) and the impact of the company's results (Y -coordinate):

$$IK = f(X_{IC}; Y_{IC}) = f(\{X_{HC}, Y_{HC}\}; \{X_{SC}, Y_{SC}\}; \{X_{CR}, Y_{CR}\}), \quad (4.1)$$

where X_{HC} , Y_{HC} – estimates of the company's human capital by the X -coordinate and Y -coordinate; X_{SC} , Y_{SC} – estimates of the company's structural capital by the X -coordinate and Y -coordinate; X_{CR} , Y_{CR} – estimates of the capital of the company's relations by the X -coordinate and Y -coordinate.

Table 4.3 Morphological matrix of reporting on the intellectual capital of an international company based on the InCaS standard

IC components	Human capital (HC)			Structural capital (SC)			Capital of relations (CR)		
	Professional competence (HC1)	Social competence (HC2)	Motivation of employees (HC3)	Corporate culture (SC1)	Internal collaboration and knowledge sharing (SC2)	Information technology and explicit knowledge (SC3)	Customer relations (CR1)	Investor relations (CR2)	
Attribute characteristics	Quantity Quality Management	Quantity Quality Management	Quantity Quality Management	Quantity Quality Management	Quantity Quality Management	Quantity Quality Management	Quantity Quality Management	Quantity Quality Management	Quantity Quality Management
X-coordinate of the matrix of strategies (X_{IC})	a_{11} a_{12} a_{13} Improve-ment poten-tial X_{HC1}	a_{21} a_{22} a_{23} Improve-ment poten-tial X_{HC2}	a_{31} a_{32} a_{33} Improve-ment poten-tial X_{HC3}	b_{11} b_{12} b_{13} Improve-ment poten-tial X_{SC1}	b_{21} b_{22} b_{23} Improve-ment poten-tial X_{SC2}	b_{31} b_{32} b_{33} Improve-ment poten-tial X_{SC3}	c_{11} c_{12} c_{13} Improve-ment poten-tial X_{CR1}	c_{21} c_{22} c_{23} Improve-ment poten-tial X_{CR2}	
The power of influence on the company's capitalization	0 – absent 1 – minor 2 – significant 3 – exponential	0 – absent 1 – minor 2 – significant 3 – exponential	0 – absent 1 – minor 2 – significant 3 – exponential	0 – absent 1 – minor 2 – significant 3 – exponential	0 – absent 1 – minor 2 – significant 3 – exponential	0 – absent 1 – minor 2 – significant 3 – exponential	0 – absent 1 – minor 2 – significant 3 – exponential	0 – absent 1 – minor 2 – significant 3 – exponential	0 – absent 1 – minor 2 – significant 3 – exponential
Y-coordinate of the matrix of strategies (Y_{IC})	Impact on company capitaliza-tion Y_{HC1}	Impact on company capitaliza-tion Y_{HC2}	Impact on company capitaliza-tion Y_{HC3}	Impact on company capitaliza-tion Y_{SC1}	Impact on company capitaliza-tion Y_{SC2}	Impact on company capitaliza-tion Y_{SC3}	Impact on company capitaliza-tion Y_{CR1}	Impact on company capitaliza-tion Y_{CR2}	
High/significant	Development	Development	Development	Development	Development	Development	Development	Development	
Low/significant	Stabilization	Stabilization	Stabilization	Stabilization	Stabilization	Stabilization	Stabilization	Stabilization	
High/minor	Analysis	Analysis	Analysis	Analysis	Analysis	Analysis	Analysis	Analysis	
Low/minor	Lack of action	Lack of action	Lack of action	Lack of action	Lack of action	Lack of action	Lack of action	Lack of action	

Source: developed by the author

In turn, each of the components of the company's intellectual capital can be assessed by the corresponding attributes according to three characteristics: quantity, quality, and management (Table 4.3):

$$X_{IC} = \begin{cases} f(X_{HCi}) = f\left(\frac{1}{3} \sum_{j=1}^3 a_{ij}\right), & i=1, \dots, 3; \\ f(X_{SCi}) = f\left(\frac{1}{3} \sum_{j=1}^3 b_{ij}\right), & i=1, \dots, 3; \\ f(X_{CRi}) = f\left(\frac{1}{3} \sum_{j=1}^3 c_{ij}\right), & i=1, \dots, 2, \end{cases} \quad (4.2)$$

where a_{ij} – the quantity estimates ($j=1$), quality ($j=2$) and state of management ($j=3$) for the i -th component of the company's human capital; b_{ij} – estimates of quantity ($j=1$), quality ($j=2$) and state of management ($j=3$) for the i -th component of the company's structural capital; c_{ij} – estimates of quantity ($j=1$), quality ($j=2$) and state of management ($j=3$) for the i -th component of the capital of the company's relations.

The y-coordinate of the intellectual capital evaluation (impact on the company's results) is measured in points and is determined by experts in the range from 0 (no impact) to 3 (exponential impact).

In our opinion, the methodology of reporting according to the InCaS standard needs this part of adaptation if it is used to evaluate the management of the intellectual capital of an international company. In particular, the use as Y-coordinate of the evaluation of intellectual capital of its influence on the company's performance does not fully reflect the specifics of managing the intellectual capital of an international company. In our opinion, much more information about the role of intangible assets in ensuring the effective functioning of international companies is provided by an assessment of the influence of its components (human capital, structural capital and capital relations) on the company's capitalization. As has been repeatedly noted in the work, the influence of a particular client component (CR1) on the capitalization of international companies, the competitive advantages of which are in the plane of intangible assets (IT sector, telecommunications, media, services, etc.), is decisive. But for international producers of materialized products or operators of the extractive sector of the economy, this influence will be much less, since the source of capitalization of such companies are mainly tangible assets.

Thus, using as an Y-coordinate an expert assessment of the influence of intellectual capital on the company's capitalization will allow a more complete assessment of the role of intellectual capital in shaping the market value of an international company depending on the sectoral specificity of its activities.

The final result of the reporting of companies according to the methodology of the InCaS standard is the definition of a management strategy for a specific component of the company's intellectual capital depending on the combination of its X-coordinate values (improvement potential) and Y-coordinate (impact on the company's results). The matrix of strategies for managing the intellectual capital of an international company, taking into account the proposed refinements regarding the essence of its Y-coordinate (impact on the company's capitalization), is presented in Fig. 4.2.

Y-coordinate – influence of intellectual capital components on the company's capitalization	<i>Significant</i>	Stabilization of intellectual capital components	Development of the intellectual capital component
	<i>Minor</i>	Lack of action on the component of intellectual capital	Analysis of the intellectual capital component
		<i>Low</i>	<i>High</i>

X-coordinate – potential to improve the management of the components of intellectual capital

Fig. 4.2 A modified matrix of intellectual capital management strategies of an international company based on the InCaS standard.

Source: developed by the author

The reporting in accordance with the InCaS European Intelligence Capital Standard provides a wide range of opportunities to form an adequate understanding of the company's future status and prospects of development of intellectual capital since:

- based on a classic conception of the company's intellectual capital structure;
- uses transparent and understandable attributes to measure the company's intellectual capital component, which either have a quantitative dimension or can be adequately evaluated by experts;
- is characterized by flexibility in the choice of indicators for assessing the components of the company's intellectual capital;
- allows to assess the intellectual potential of the company in terms of achieving its strategic goals and influence on the results of its activities;
- subject to the consideration of the proposals submitted (use of the Y-coordinate of the influence of intellectual capital on the company's capitalization) allows a more complete assessment of the role of intellectual capital in shaping the market value of an international company, depending on the industry specificity of its activities.

The InCaS-based intellectual capital accounting, based on the submitted proposals, will ensure transparency in the assessment of the intellectual capital of an international company and the definition of management

strategies for its components. At the same time, one can't but point out the obvious difficulties that arise when applying both the InCaS standard and other international accounting standards for intellectual capital. Certain complications in the assessment of intellectual capital and the interpretation of its results may be due to the need to use such indicators for the assessment of the components of the company's intellectual capital that information is not publicly available or not subject to reporting. This, in particular, motivates employees, corporate culture, social competence, etc. Undoubtedly, the assessment of the state of such components of intellectual capital can be estimated indirectly – through quantitative indicators or by the method of expert assessment: the average percentage of bonus payments (employee motivation), the percentage of loyal to the management of employees (corporate culture), etc. It should be admitted that in solving managerial problems, some uncertainty in the consideration of the quantitative characteristics of processes and the need to resort to peer review is irreversible. Therefore, in our opinion, it is expedient at the slightest opportunity to try to provide quantitative assessment of the parameters of the situation by selecting quantitative indicators (first of all, financial), which are subject to unambiguous measurement. The task of quantitative measurement of the influence of intellectual capital on the financial results of the company's activity is solved in the third chapter of the work.

Considering the impossibility of accounting to take into account all elements of intellectual capital, T. McGrave and L. Brenner, working at Talent Growth Advisors, a consulting agency, proposed an intellectual capital index (ICI), which is calculated by finding internally generated intellectual capital based on market capitalization and value of intangible assets published in the financial statements of companies. The results of the 2016 calculations were carried out for 30 companies of the Dow Jones index (DJI), but later 5 companies representing the oil sector (Exxon Mobile, Chevron) and the financial sector (Goldman Sachs, JP Morgan Chase, Travelers) were excluded from the study taking into account the specifics of the assets of companies of the above profile (oil and cash).

Four of the companies analyzed (Boeing, Pfizer, Apple, United Technologies) had an ICI higher than one, which means that the value of their intellectual capital is higher than the value of the company. Among all evaluated companies (Table 4.4), the average ICI value was set at 0.86, and the lowest figure was recorded for American Express (0.53), Wal-Mart (0.58), Cisco (0.64). The developers of the index also calculated the value of the IC value per employee and for this indicator the first position was taken by Visa (14.0 million USD per person), due to the minor number of Visa operating companies (11 thousand people for) and minor investments in tangible assets. For comparison, the company Apple IC per person is 4.5 million USD, however, has a staff of 116 thousand people, moreover, investment in tangible assets is also significantly higher.

Table 4.4 The intellectual capital index of international companies DJI in 2016

Company	Rating position		Intellectual capital, million USD	Intellectual capital index	
	2015	2016		2015	2016
Pfizer	2	1	245.411	1.04	1.11
Boeing	1	2	103.042	1.04	1.07
Apple	3	3	509.067	1.04	1.04
Visa	6	4	209.687	0.98	1.00
Johnson&Johnson	7	5	291.021	0.98	0.98
UnitedHealth	5	6	170.306	0.98	0.98
Procter& Gamble	8	7	236.878	0.97	0.97
United Technologies	4	8	102.257	1.01	0.97
Microsoft	9	9	349.143	0.93	0.93
3M	11	10	107.571	0.91	0.93
DuPont	10	11	61.066	0.93	0.93
Merck	13	12	156.934	0.89	0.91
Nike	12	13	81.034	0.91	0.91
IBM	15	14	179.522	0.86	0.87
Home Depot	14	15	164.171	0.86	0.87
Coca-Cola	16	16	172.012	0.85	0.85
McDonald's	18	17	104.230	0.83	0.84
General Electric	20	18	285.662	0.71	0.83
Disney	17	19	138.705	0.83	0.81
Verizon	21	20	229.700	0.70	0.71
Intel	19	21	128.924	0.72	0.70
Cisco	22	22	119.076	0.64	0.65
Caterpillar	25	23	49.502	0.48	0.59
Wal-Mart	23	24	139.926	0.57	0.58
American Express	24	25	50.262	0.52	0.53

Source: built by the author on the basis of data [28]

The analysis of the sectoral structure of the obtained IC value for 30 companies (\$ 4.4 trillion USD) testified to a high proportion of the technology sector (20.32 %), represented by 5 companies, healthcare (19.7 % and 4 companies), industry (10.1 % and 3 companies).

The analysis of the brand value of the top 20 companies according to Interbrand revealed that the leaders in terms of brand value growth rates should include Facebook (6.2 times over the period 2013 – 2017) and Amazon (2.7 times), Apple (1.9 times) (Table 4.5). Moreover, the above companies are also characterized by high social impact indicators, represented by the number of subscribers on Twitter and Facebook. In the ranking of the top 20 companies, 7 represent the technology sector and 4 represent the automotive industry. In total, among the 100 companies in the rating, 15 are

in the field of technology, 16 – in the automotive industry. More than half of the rating in 2017 is traditionally occupied by companies from the USA (52 positions), which is due to their focus on the final consumer, which ultimately determines the brand value.

Table 4.5 Rating of international companies by brand value in 2017 according to Interbrand, billion USD

Rating position*	Company	2013	2014	2015	2016	2017
1	Apple	98.316	118.863	170.276	178.119	184.154
2	Google	93.291	107.439	120.314	133.252	141.703
3	Microsoft	59.546	61.154	67.670	72.795	79.999
4	Coca-Cola	79.213	81.563	78.423	73.102	69.733
5	Amazon	23.620	29.478	37.948	50.338	64.796
6	Samsung	39.610	45.462	45.297	51.808	52.249
7	Toyota	35.346	42.392	49.048	53.580	50.291
8	Facebook	7.732	14.349	22.029	32.593	48.148
9	Mercedes-Benz	30.097	34.338	36.711	43.490	47.829
10	IBM	78.808	72.244	65.095	52.500	46.829
11	GE	46.947	45.480	42.267	43.130	44.208
12	McDonald's	41.992	42.254	39.809	39.381	41.533
13	BMW	31.839	34.214	37.212	41.535	41.521
14	Disney	28.147	32.223	36.514	38.790	40.772
15	Intel	37.257	34.153	35.415	36.952	39.459
16	Cisco	29.053	30.936	29.854	30.948	31.930
17	Oracle	24.088	25.980	27.283	26.552	27.466
18	NIKE	17.085	19.875	23.070	25.034	27.021
19	Louis Vuitton	24.893	22.552	22.250	23.998	22.919
20	Honda	18.490	21.673	22.975	22.106	22.696

* The position is formed in accordance with the results of the 2017 rating.

Source: built by the author on the basis of data [29]

For the calculation of the Tobin's Q ratio for international companies in the context of certain types of economic activity, information was used on the rating of the largest public companies of Forbes 2018. Companies were aggregated by type of activity in order to identify the sectoral features of the Tobin's Q calculation results, which are essentially an indicator of the presence of invisible assets in the company which are not reflected in the financial statements.

Among the 2000 companies represented in the ranking, 23 are represented by the scope of computer services, and of these, only in 2 companies (Synnex, Atos) the Tobin's Q ratio is less than one. Comparison of this type of activity with others allows to state about high rates of market value over assets. The software sector in the ranking is represented

by 15 companies, of which in 4 (Apple, HP, Focus Media Information Technology, Unisplendour), the Tobin's Q ratio exceeds one. The highest Tobin's Q ratio in 2017 was in companies such as Facebook (6.09), Tata Consultancy Services (6.04), Tencent Holdings (5.77), Accenture (4.37) (Table 4.6).

Table 4.6 Tobin's Q calculation for companies in the provision of computer services and software in 2017

Company	Country of origin	Sales, billion USD	In-come, billion USD	Asset value, billion USD	Market value, billion USD	Tobin's Q
Computer services						
Aplhabet	USA	117.9	16.6	206.9	766.4	3.70
IBM	USA	80.1	5.7	125.3	132.3	1.06
Facebook	USA	44.6	17.8	88.9	541.5	6.09
Tencent Holdings	China	35.3	10.6	85.2	491.3	5.77
Accenture	Ireland	39.1	3.6	23.1	101	4.37
Baidu	China	13.4	3.5	42.8	94.1	2.20
Tata Consultancy Services	India	19.1	4	16.3	98.4	6.04
Cognizant	USA	15.2	1.5	15	44.9	2.99
RELX Group	Great Britain	9.5	2.1	16.6	43.4	2.61
Infosys	India	10.9	2.5	12.3	38.3	3.11
Software						
Apple	USA	246.5	53.3	367.5	926.9	2.52
HP	USA	54.2	3.9	35.2	37.3	1.06
Hewlett Packard Enterprise	USA	31.2	1.5	61.6	27.4	0.44
Dell Technologies	USA	78.7	-3.7	122.3	57.2	0.47
Fujitsu	Japan	37	1.5	29.4	12.8	0.44
Lenovo Group	Hong Kong	44.3	-0.116	29.5	5.8	0.20

Source: built by the author on the basis of data [52, 55]

After analyzing the experience of companies managing IC in the context of certain segments of the global economy, it is possible to distinguish the following common features:

- recognition of the need to introduce into the corporate management system as its important component of intellectual capital management;
- success of IC management is achieved due to the cumulative effect with a combination of information, financial, and organizational support for the outlined direction from the management;
- development and implementation of intellectual capital management systems due to corporate demand for improving business results;
- recognition of the feasibility of polyvariance approaches and tools, the use of communities of practice, the involvement of external

consultants, if necessary, the recognition of information technology as a key trigger mechanism;

– systematic approach to the organization of management processes, which is long-term in nature, a combination of tactical and strategic objectives and activities.

4.3 Strategic management of intellectual property objects as the personification of the intellectual capital of an international company

The decisive role of intangible resources in ensuring the effective functioning of modern international companies requires the development of mechanisms for the strategic management of intellectual capital. The work has repeatedly noted obvious methodological complications arising in the context of assessing the impact of intellectual capital and its individual components on the company's activities. The corresponding complications are due to the need to use for the evaluation of the company's intellectual capital of such indicators, information about which is not publicly available, or is not subject to reporting, or has only a qualitative interpretation. Certain aspects of the use of intellectual capital (for example, the quality of corporate culture, the success of customer relations, the effectiveness of knowledge dissemination mechanisms, etc.) can be assessed only on the basis of expert assessment procedures, the results of which have an ineradicable subjective nature and varying interpretation. In our opinion, the formalization of the strategic management of the company's intellectual capital will allow the use of categories of the company's intellectual property objects to allow. The company's intellectual property (patents, brands, copyrights) can be considered as the personification of the company's intellectual capital, as it is the integrating result of the company's intellectual capital and its individual components.

Thus, human capital in the form of workers' knowledge is the basis for obtaining patents for innovative technologies, industrial inventions and manufacturing know-how; structural capital is personified through the acquisition of copyright on corporate information systems, databases and domain names; customer capital (customer loyalty, investor relations) is realized through brand success and is protected by a trademark. Another important argument in favor of associating the intellectual capital of a company with its intellectual property objects is the ability to analyze the dynamics and structure of the latter, allows to draw firm conclusions about the success of commercialization of intellectual property. Finally, intellectual property (patents, trademarks, copyright) are subject to protection, prevents the possibility of copying or unauthorized use of the intellectual resources of the company.

The goal of strategic management of intellectual property objects can be defined as maximizing the results of a company's activities, while minimizing the risks associated with the use of intellectual capital, is achieved by creating effective mechanisms for protecting the company's intellectual property. Solving this problem requires the implementation of strategic benchmarks for the development of competitiveness and protection of intellectual property at all levels of the company's management and its individual business units.

The company's intellectual property is its intangible intellectual assets. This category includes: inventions, utility models, industrial designs, trademarks and service marks, brand names, the material expression of the rights to which are exclusive rights documents, patents and registration certificates, production secrets («know-how»), naming of places origin of the goods, as well as rights obtained as a result of the acquisition of licenses to patent holders. Intangible assets can be software products, integrated circuit topologies, information systems and databases. An important component of the company's intangible assets is its reputation or «goodwill», which is interpreted in the works of scientists:

- an intangible asset, the value of which is defined as the difference between the book value of the assets of an enterprise and its ordinary value as an integral property complex, arises from the use of the best managerial qualities, the dominant position in the market for goods (works, services), new technologies, etc.;
- assets, capital of the company, which is not amenable to material measurement (reputation, technical competence, connections, market influence);
- public opinion about the name, style, trademark, logo, projects, products and any other items owned or controlled by the company, as well as relationships with customers and customers;
- set of intangible assets, the presence of which provides the competitive advantages of the company and allows it to receive additional income;
- elements of the company's image: company name, geographical location, characteristics of sales and supply, the use of know-how in the production process and managerial know-how in the marketing process, etc.;
- intangible assets of the company, consisting of the prestige of the enterprise, its business reputation, customer relations, location, product lines, and the like.

Despite the lack of a unified approach to the interpretation of goodwill, it is generally understood in its understanding to associate with the various components of the company's intangible assets, which determine the difference in its market value from the book value of assets. In the activities of international companies, the importance of goodwill as the personification of corporate intangible assets can't be overestimated, which was repeatedly noted in the work. The confirmation of statistical data on the trend towards the excess of the market value of leading international companies over the

balance sheet indicates a steady increase in the role of intangible assets in ensuring the effective functioning of modern corporations. So, according to experts, about 75 % of the market value of Coca-Cola is determined by the total value of the trademarks that belong to it, and according to Ernst & Young, the largest global corporations (Disney, Microsoft, Nike, etc.) own assets already account for more than half the total value of the company. This is especially true of high-tech enterprises. Microsoft, with a market capitalization of hundreds of billions of dollars, has only a few billion dollars on the balance of tangible assets. The defining role of goodwill as the personification of intangible assets, in our opinion, should be considered as a key specific feature of the functioning of modern international companies. The dependence of the success of global corporations on their reputation, brand, trademark determines the need to develop effective mechanisms for the protection of intangible assets and determines the priorities for the development and implementation of the strategy for managing the intellectual property of an international company.

Analysis of the specific features of the activities of subjects of international business suggests that the next priority of the strategy of managing intellectual property objects is a consequence of the peculiarities of building the organizational structure of management of international companies and the different significance of individual components of intellectual property in regional markets. The forms and level of presence of international companies in different host countries may vary significantly. For example, having production facilities in a particular country, an international company can export its products to other countries in which the company only markets through its representative office. The need for units that perform various functions in the representation of a particular country, thus, depends on the type of company's operations in the relevant market, and the role of intangible assets will be fundamentally different, for example, in the case of export-import operations as a simple form of presence in regional markets the case of international business activity in the form of licensing or franchising. In the latter case, at the regional level of management of an international company, priorities for the support, development and protection of intellectual property of an international company should be clearly defined. Changes in the geographical expansion of international companies should include both the concentration of strategic functions for managing intellectual property at the level of the main (parent) company, and the delegation of a number of functions to the regional level of management. The functions of a regional nature in the management of intellectual property are determined on the basis of the scale and form of the company's presence in a particular national market, the importance of intellectual property for effective functioning and the degree of development of the mechanisms for their protection in the host country.

Finally, an important direction in the formation of the strategy for managing intellectual property of an international company is the

development of measures for their commercialization. Under the commercialization of intellectual property refers to the process of generating income through the internal and external use of intangible assets of the company. Internal use of intellectual property provides for the participation of intellectual assets in the internal business processes of the company. The profit in this case is of a mediated nature and arises as a result of an increase in the efficiency of business processes through the use of intellectual property. External use of the company's intellectual property can be realized in such forms as: the contribution of intellectual assets to the authorized capital of other companies, the transfer of intellectual capital rights under license agreements, the sale of intellectual property, franchising and licensing. The last two forms of outdoor use of intellectual property are of great importance for an international company, because international franchising and international licensing are common forms of the presence of international companies on national markets and means of minimizing transaction costs in international business. Accordingly, the development of measures for the commercialization of intellectual property (both in the internal and external context) should be considered as one of the priorities of the strategic management of the intellectual property of an international company.

The priorities of the strategic management of intellectual property, which are due to the specific characteristics of the activities of international companies, are systematized in Fig. 4.3.

Priorities				
Accounting for the determining role of goodwill as the personification of intangible assets	Consideration of the different role of intangible assets in the activities of an international company depending on the form and level of presence in regional markets		Consideration of the importance of ensuring commercialization as a process for generating revenue through the internal and external use of intangible assets	
The need to develop effective mechanisms for the protection of intangible assets as the basis for competitive advantages in world markets	The need to allocate functions and tasks for the management of intellectual property at the corporate (strategic) and regional (operational) levels		The need to develop measures for the commercialization of the company's intellectual property	
	Corporate level (parent company)	Regional level (organizational units in host countries)	Internal use	Outdoor use
	Concentration at the corporate level of managing an international company of strategic management functions with intellectual property objects	Delegating operational management functions with intellectual property on the regional market, taking into account the specific business environment of the host country	The use of intellectual property in order to improve the internal business processes of the company at both the corporate and regional levels	Active commercialization of the company's intellectual property in order to generate sustainable profits

Fig. 4.3 Priorities of strategic management of intellectual property of an international company. *Source: developed by the author*

Taking into account certain priorities, the following procedure of strategic management of intellectual property objects (IPO) of an international company can be proposed (Fig. 4.4).

Stage 1. Conduct an audit of the company's intellectual property. The final stage of the procedure provides for an adequate assessment of the company's internal capabilities based on the general market requirements, sectoral significance and vulnerability of intellectual capital and the need to develop effective mechanisms for its protection.

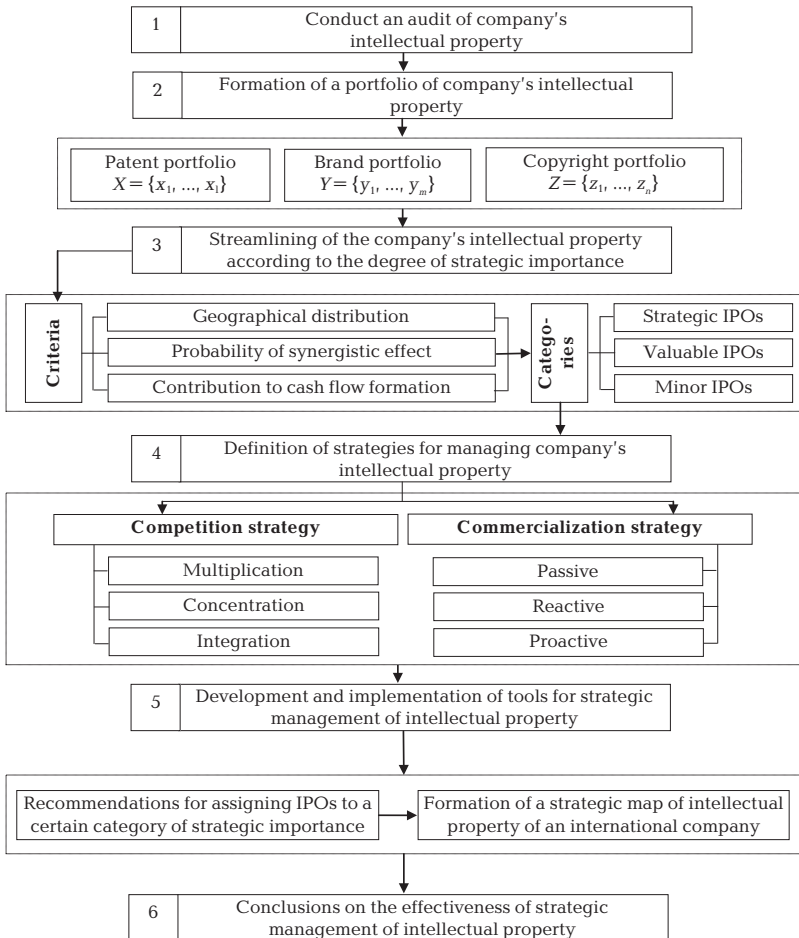


Fig. 4.4 The procedure of strategic management of intellectual property of an international company. *Source: developed by the author*

The audit in this case means not a legal procedure for estimating the value or inventory of intellectual capital, but a procedure for determining drivers and outsiders for creating a company's added value (as a whole and/or for individual business areas) on the basis of intellectual resources in order to further develop screening others. The establishment of correspondence between intellectual property objects and the peculiarities of their use in various regional markets, depending on their contribution to ensuring profitability, will in the future allow the formation of strategies for competitiveness and commercialization of intellectual property objects of an international company.

Thus, the audit of a company's intellectual property is a process aimed at identifying them and provides a platform for effective management of intellectual assets both at the corporate (strategic) and regional (operational) levels of management based on the forms of organization of foreign operations and on the basis of portfolio of intellectual property of an international company (see the next step).

Stage 2. Formation of a portfolio of company's intellectual property objects to assess the possibilities for the emergence of synergies from their sharing, the need to purchase additional and/or rejection of low-productive components of the portfolio.

Different significance of certain types of intellectual property depending on the chosen form of organization of foreign operations requires the systematization of intellectual property (creation of portfolios) by their types: patents, brands, copyright.

The patent portfolio includes groups or families of related patents obtained and used by each business unit of the company (regional division). Due to its formation, top management can assess the strengths and weaknesses of its technological base and, therefore, adopt appropriate short-term and long-term strategies. Despite the fact that international company patents are of corporate importance, plans to strengthen the patent portfolio for competitiveness and commercialization should be developed at the level of a business unit.

A brand portfolio should be created in order to show horizontal brand expansion in various product categories and vertical penetration along the hierarchy of company values (for example, brands used in each product category). Strong (competitive) brands should receive any managerial support, and their use should be systematically extended to new product categories. They should also be used through trade agreements in categories of products that the company does not manufacture on its own. Brands that for one reason or another no longer provide competitive advantages can be sold or merged with other brands along the hierarchy of values, or combined with corporate and other product brands to save on marketing and advertising costs in the countries where the company operates.

The copyright portfolio systematizes intellectual property items of the appropriate type, taking into account the activities and/or market segments in which they were received and used. By analogy with the portfolio of

brands, one should take into account the success of the components of the portfolio, their role in shaping the company's cash flow and the prospects for commercialization.

Stage 3. Streamlining the company's intellectual property by degree of importance. The main result of the formation of a portfolio of intellectual property of the company is their distribution into categories:

- strategic IPOs that are actively used in the process of the company's current activities, having strategic prospects for the development of the company's competitive advantages both in the general corporate and in the regional dimension;
- valuable IPOs that are not of strategic interest for the company, but are successfully commercialized at a given point in time.

Minor IPOs that have no prospects for commercialization in both tactical and strategic dimensions, and therefore do not represent value for the company.

The grounds for assigning the company's intellectual property to one of these categories can be:

1. Geographical distribution of the IPO use. Obviously, the greater the number of business units which competitive advantages are based on the use of a certain intellectual property, or the more developed the regional structure of the company's production under a certain brand, the greater its significance for an international company.

For example, analysis of the regional structure of the portfolio of key brands of Nestle (Table 4.7) shows that, according to this criterion, the brands that fall into the category of strategic intellectual property of a company are Dolce Gusto (coffee machine capsules), Nescafe (coffee), Purina (pet food), Maggi (food concentrates), Nestle Professional (coffee). Products under these brands are manufactured in 61, 47, 30, 29 and 27 countries of presence, respectively (with 69 possible regional productions of the company). The category of valuable intellectual property (products under which are produced in several countries) should include Cat Show, Contrex, Dog Show, Felix, Friskies, Nespresso, Nesquik, Nido Plus, Pro Plan, etc. The category of minor intellectual property by criterion the production of corresponding products in the minimum number of countries includes Antica Gelateria (Italy), Perrier (France), Water Pure (Russia, United Kingdom). Of course, only by the criterion of the geographical distribution of the brand, it is impossible to make an unequivocal conclusion about its strategic importance (or vice versa), since the contribution to the formation of the company's cash flow should be explored separately (see the Corresponding Criterion below). The same Perrier mineral water, thanks to its successfully chosen positioning strategy as a product of elite quality, enjoys steady solvent demand all over the world. Therefore, the criterion of geographical distribution of production should be applied only in combination with other criteria for determining the strategic significance of the intellectual property of an international company.

2. The probability of obtaining a synergistic effect of sharing with other IPOs. The synergistic effect is understood as the possibility of simultaneously increasing the efficiency of using the company's intellectual property objects through the joint use of production, management, information and other resources. The probability of obtaining a synergistic effect from the joint use of the IPOs of the company is proposed to be defined in the categories: high, moderate, absent. The basis for assessing the likelihood of a synergistic effect from the joint IPOs use is results of the analysis of the regional concentration of their use.

Returning to the example of Nestle, based on an analysis of the regional structure of its production, it is possible to see that, in most cases, pet food under the Cat Show, Dog Show, Friskies and Pro Plan brands are produced simultaneously in a particular country. It is possible to assume that the probability of obtaining a synergistic effect (primarily of a production nature) in the case of regional concentration of the production of related products is quite high. Similarly, most often coffee production under the Dolce Gusto and Nespresso brands is geographically concentrated, which also makes it possible to estimate the likelihood of a synergistic effect from the joint arrangement of production lines as high.

3. The IPO contribution in the formation of the company's cash flow. Obviously, the criterion for the distribution of intellectual property according to the degree of strategic importance is its contribution to ensuring the profitability of the company, which is proposed to be determined in dynamics (growth, stability or reduction).

As already noted, an object of intellectual property with a minimum of geographical distribution and the absence of synergies from sharing with others can be categorized as strategic assets, if its use provides the company with significant profits.

Returning to the analysis of the portfolio of brands of Nestle Corporation, on the basis of the company's reporting, we can conclude that the growth driver is Nespresso business. Nespresso's business showed average single-digit growth and acceleration in the second quarter of 2017, which was due to sales growth across all Nestle geographic areas, with growth in North America measured by double-digit numbers. The growth leaders were also food categories of mineral water (Contrex, Lean, S.Pellegrino, Perrier), coffee (Dolce Gusto, Nestle Professional, Nesquik) and pet food (Cat Show, Contrex, Dog Show, Felix, Friskies, Pro Plan, Purina). The only product category that showed a decline was the confectionery category (Frigor, Kit Kat, Lifesavers). On the other hand, the increase in prices for products under the Nescafe brand (the most geographically common brand) in the first half of 2017 led to a short-term reduction in the company's real growth in the second quarter of the reporting period.

The criteria for streamlining the company's intellectual property are ranked according to the degree of strategic importance in the Table 4.8.

Table 4.8 Criteria for streamlining the company's intellectual property by degree of strategic importance

IPO categories	Criteria for assigning objects to a specific category		
	Geographical distribution of the IPO use	The likelihood of a synergistic effect of sharing	IPO contribution to the company's cash flow
Strategic	Significant	High	Growth
Valuable	Moderate	Moderate	Stability
Minor	Minor	Absent	Reduction

Source: developed by the author

Stage 4. Determination of the company's intellectual property management strategy, which should be implemented in two key areas – the IPO competition strategy (designed to support and create new competitive advantages in the long term) and the IPO business asset commercialization strategy (designed to optimize the geographical expansion of an international company and its entry into relevant/similar new markets). The implementation of the strategy for managing intellectual property at the regional level is carried out by making the necessary changes in the structure of an international company and assigning responsibility to teams and departments, which will allow each business unit to develop detailed investment plans for the implementation of the IPO portfolio both in the home country and in the host countries.

The need to develop management strategies for IPO in two specific areas is due to the apparent conflict between the objectives of competitiveness and commercialization. In the first case, the strategy is based on the maximum limited ability to copy the IPO by competitors in order to protect the competitive advantages of the company. In the second, the maximum IPO distribution and its use as a business asset for profit is assumed.

The criterion for determining the IPO competition strategy is choosing the intensity with which the company produces intellectual property objects. By this criterion, the following strategies can be proposed.

1. Multiplication strategy (from the Latin *multiplicatio* – multiplication, increase, growth) – involves the maximum production of intellectual property around a certain object (most often created by competitors or within a strategic alliance), which can be considered as decisive for ensuring efficiency in selected area.

An example of the implementation of a multiplicative approach to the management of intellectual property can be considered such a phenomenon as «avalanche patenting» [2, 23]. The practice of avalanche patenting is actively used by Japanese companies and provides for the continuous generation of patent applications protecting minor technical improvements to those inventions for which patents have already been issued by competing firms.

The avalanche patenting process makes it difficult for a competing firm to improve its technology without violating the intellectual property rights of the company that spawned this process. For example [23 p. 143], CyberOptics, a small company from Minneapolis, developed the product LaserAlign (a combined technology that combines the capabilities of software and a laser and allows work to place small parts on printed circuit boards). The management of this company believes that the company suffers losses due to the avalanche patenting process initiated by a much larger company. For five years, CyberOptics has worked closely with Yamaha, helping it integrate CyberOptics technology in the lifting and transportation work that Yamaha has been using to make motorcycles and other products. Both companies have agreed that without the knowledge of each other, they will not apply for patent protection for the technology developed by joint efforts. However, CyberOptics found that Yamaha had submitted 26 applications for the patenting of technology developed jointly on the basis of the LaserAlign system in Japan, Europe and the United States. Moreover, CyberOptics managed to find out that Yamaha warns potential CyberOptics customers that they might violate Yamaha's patent rights if they use CyberOptics services. As a result, a Minneapolis firm sued Yamaha for breaching a contract and violating its patent rights. The given example, despite its legal imperfection, indicates the possibility of developing the competitive advantages of an international company by observing a multiplicative approach to the production of intellectual property.

2. *Concentration strategy* (from the Latin *concentratio* – concentration, accumulation, saturation) – involves the protection of the company's intellectual property by actively creating new objects around a certain central object of the company's intellectual property. Compliance with this strategy will make it difficult for competitors to create their own IPOs in the relevant field of activity and ensure the protection of the company's intellectual capital from copying and/or unauthorized use. A timely, systematic and legally enforced concentration strategy by CyberOptics (see Example above) would help protect its intellectual property from avalanche patenting by Yamaha.

Concentration strategies regarding its key asset – Nespresso brand – are pursued in particular by Nestle. The high degree of attractiveness of the market for coffee capsules is primarily due to its profitability at the level of 20 – 30 % and a higher rate of its development compared to the market of instant coffee. To consolidate its competitive position among 50 other well-known capsule systems, Nestle uses numerous patents that prohibit other companies from producing capsules that are compatible with Nespresso coffee machines.

3. *Integration strategy* (from the Latin *integratio* – insert, convergence, replenishment) – involves the use of intellectual property as a means of gradually penetrating a new market, mastering a new type of activity, etc. Implementing the integration strategy requires significant financial costs and is possible with powerful innovative the potential of the company and the use of effective mechanisms for competitive intelligence.

According to the strategy of commercialization of intellectual assets of the company, the author of the work offers such a list according to the criterion of activity with which the company resorts to searching for opportunities for commercialization:

1. *Passive strategy* – it is used if the possibilities of generating profits from the IPO commercialization are uncertain and risky, usually corresponds to the stage of implementation of the object's life cycle; provides for waiting or a combination of efforts to commercialize an asset within a venture capital company, a strategic alliance, etc.

2. *Reactive strategy* – is used if the possibility of generating profits from the IPO commercialization is explainable and not accompanied by high risks. The implementation of the strategy is possible if the company has provided a stable competitive position based on a certain IPO and does not risk its loss as a result of distribution (commercialization) through licensing, franchising, participation in a strategic alliance, and others. Ford Global Technologies defines a strategy like Ford First that means the need to stabilize the IPOs of the company on the market (lasting from three years) before its commercialization begins.

3. *Proactive strategy* – is used if the IPO is not explicitly considered as a source of ensuring long-term competitive advantages for the company, but its use is of value to other economic agents (franchise, license, etc.). In this case, the IPO is actively promoted as a subject of commercialization and is easily transferred for use as partners, as well as competitors.

As an effective commercialization strategy, of course, it is possible to choose a proactive strategy that aims to maximize cash flow through the use of other economic agents of the company's intellectual property. Features of the use of commercialization strategies are systematized in the Table 4.9, depending on the type of intellectual property of the company.

Stage 5. Development and implementation of strategic tools for managing the company's intellectual property. The next stage of the developed procedure provides for the synthesis of the results obtained in the previous stages. Methodological provisions on the strategic management of intellectual property of an international company are proposed to be systematized based on the use of a tool such as a strategic map. Depending on the accents of the study, in a strategic map, scientists understand [6, 4]:

- graphical display of causal relationships between the individual elements of the strategy, which provides a universal and consistent way of describing the strategy in such a way that it is possible not only to set goals and indicators, but also to control them;
- a visual way of reflecting the strategy of the organization, which provides for the streamlining of goals, objectives and processes in the vertical and horizontal dimensions;
- document allowing to fix the strategic guidelines for the development of indicators adopted at the enterprise, and the purpose of which is facilitation of the strategy implementation.

Table 4.9 Use of commercialization strategies of intellectual property of an international company

IPO type	Commercialization strategies		
	Passive	Reactive	Proactive
Patents	System support by emphasizing exclusivity and exclusivity	Cutting costs and/or spreading to related areas of activity	Strong competitive position due to the formation of market standards
Trade-marks	Effective at the brand implementation stage, requires monitoring all relevant processes in order to form a stable brand identity	Effective at the brand growth stage; brand promotion through licensing and seeking economies of scale	Strengthening brand value through unrelated product categories (merchandising) and expanding geographic coverage (franchising)
Copyright	Dubious value and implementation potential	Development as a service and/or software product. Licensing of works to be included as part of the value chains of other companies	Use of an asset in various types of business and various market segments

Source: developed by the author based on data [41]

Thus, the creation of a strategic map is the basis for determining the projections, goals and indicators of the managerial situation, as well as establishing cause-effect relationships between them.

The results of the streamlining of intellectual property according to the degree of strategic importance, taking into account their belonging to a specific portfolio, are proposed to be summarized in the form of a strategic map of intellectual property of an international company. The use of a strategic map as a graphical tool will make a clear streamlining and facilitate the process of interpreting the results of the analysis of the company's intellectual property. In particular, taking into account the type of intellectual property (patents, brands, copyrights) and their assignment to a certain category of strategic importance (strategic, valuable, minor), optimal strategies of competition (multiplication, concentration, integration) and commercialization (passive, reactive, proactive).

Recommendations on the assignment of intellectual property in a particular category and the choice of their management strategy, depending on the combination of criteria values, are systematized in Table 4.10. For example, if, based on the values of the criteria, the company's intellectual property is insignificant, then the recommended strategy for its commercialization can be considered a proactive strategy that provides for the maximum distribution of the object for the purpose of generating profit, since it is no longer considered by the company as an asset, subject to protection and preservation.

Table 4.10 Recommendations on the assignment of intellectual property in a certain category of strategic importance and the choice of strategies for their competition and commercialization

Criteria for assigning objects to a specific category			Evaluation of the IPO strategic importance	Optimal IPO management strategies	
Geographical distribution of the IPO use	The likelihood of a synergistic effect of sharing	IPO contribution to the company's cash flow		Competition strategy	Commercialization strategy
Significant	High	Growth	Strategic	Concentration	Passive
Significant	High	Stability	Strategic	Concentration	Reactive
Significant	Moderate	Growth	Strategic	Concentration	Passive
Moderate	High	Growth	Strategic	Multiplication	Passive
Significant	High	Reduction	Valuable	Concentration	Passive
Significant	Moderate	Stability	Valuable	Concentration	Reactive
Significant	Moderate	Reduction	Valuable	Concentration	Passive
Significant	Absent	Growth	Valuable	Concentration	Passive
Significant	Absent	Stability	Valuable	Concentration	Reactive
Moderate	High	Stability	Valuable	Multiplication	Reactive
Moderate	High	Reduction	Valuable	Integration	Passive
Moderate	Moderate	Growth	Valuable	Multiplication	Passive
Moderate	Moderate	Stability	Valuable	Multiplication	Reactive
Moderate	Moderate	Reduction	Valuable	Integration	Reactive
Moderate	Absent	Growth	Valuable	Multiplication	Passive
Moderate	Absent	Stability	Valuable	Multiplication	Reactive
Minor	High	Growth	Valuable	Multiplication	Passive
Minor	High	Stability	Valuable	Multiplication	Reactive
Minor	Moderate	Growth	Valuable	Multiplication	Passive
Minor	Moderate	Stability	Valuable	Multiplication	Reactive
Significant	Absent	Reduction	Minor	Integration	Proactive
Moderate	Absent	Reduction	Minor	Integration	Proactive
Minor	High	Reduction	Minor	Integration	Proactive
Minor	Moderate	Reduction	Minor	Integration	Proactive
Minor	Absent	Growth	Minor	Integration	Proactive
Minor	Absent	Stability	Minor	Integration	Proactive
Minor	Absent	Reduction	Minor	Integration	Proactive

Source: developed by the author

The passive strategy of commercialization can be applied to intellectual property objects, or are at the implementation stage (that is, they are characterized by insignificant/moderate geographical distribution and a gradual increase in the contribution to the formation of the company's cash flow), or vice versa, they gradually reduce profit generation. Finally,

the reactive strategy of commercialization is most appropriate for intellectual property, has a stable competitor position (that is, provides a stable contribution to the formation of the company's cash flow), and the possibility of generating profits from the commercialization of which are clarified and are not accompanied by high risks.

According to the strategies of competition of objects of intellectual property of an international company, it is advisable to make their choice, guided by their contribution to the formation of the company's cash flow and the degree of geographical distribution. Thus, it is advisable to apply a competitive multiplication strategy, which provides for the maximum production of new intellectual property objects around a key object, to intellectual property objects that have not yet received significant geographical distribution, but provide a growing contribution to the formation of cash flow.

For objects with significant geographical distribution, which form the basis of a company's competitive advantages in regional markets, it is advisable to apply a concentration strategy, makes it difficult for competitors to create their own IPOs in the relevant field of activity and protects the company's intellectual capital from copying and/or unauthorized use. The competitive integration strategy, in our opinion, may be the most effective for intellectual property objects that gradually reduce their contribution to the formation of the company's cash flow and fall into the category of insignificant assets. The use of such intellectual property objects in other areas of activity or in new regional markets can be viewed as an opportunity to continue their life cycle and is especially effective in combination with a proactive commercialization strategy.

Stage 6. The formulation of conclusions regarding the effectiveness of strategic management of intellectual property objects involves the evaluation by the company's management of the effectiveness of the implementation of competition strategies and the commercialization of intellectual property objects at the corporate and regional levels, as well as the formation of recommendations for further improving the strategic management process of the company's intellectual capital.

Compliance with the proposed guidelines for the strategic management of the company's intellectual property objects makes it possible to evaluate their strategic importance to ensure the effective operation of an international company and creates the basis for choosing strategies for competition and commercialization of intellectual property objects in regional markets.

The implementation of the proposed recommendations on strategic management requires the formation of effective information support mechanisms, the basis for the creation of which and an example of practical use are discussed in the next paragraph of work.

The decisive role of intangible resources in ensuring the effective functioning of modern international companies requires the development

of mechanisms for the strategic management of intellectual capital, which can be formalized through the use of categories of the company's intellectual property objects. The company's intellectual property (patents, brands, copyrights) can be considered as the personification of the company's intellectual capital, since it is the integrating result of the company's intellectual capital and its individual components, testifies to the successful commercialization of intellectual property and is protected, which prevents copying or unauthorized use of intellectual resources of the company.

The purpose of strategic management of intellectual property of an international company is proposed to define how to maximize the results of a company's activities, subject to minimizing the risks associated with the use of intellectual capital, is achieved by creating effective mechanisms for protecting the company's intellectual property. Solving this problem requires the implementation of strategic benchmarks for the development of competitiveness and protection of intellectual property at all levels of the company's management and its individual business units. The priorities of the strategic management of intellectual property of an international company include the need to take into account such aspects: the defining role of goodwill as the personification of intangible assets; varying degrees of significance of intangible assets depending on the form and level of the company's presence in regional markets; importance of ensuring commercialization as a process for generating revenue through the internal and external use of intangible assets.

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Chapter 5

International movement of the labor power in measuring regulatory changes

5.1 Mechanism of regulation of the international labor movement

The intensification of the international movement of goods, services, investments and innovations leads to a significant increase in the international mobility of labor resources, which is at the beginning of the 21st century. acquired a global character and dimensions. According to experts of the International Labor Organization, today there are from 36 to 42 million migrant workers in the world, and over the past 25 years their number has doubled.

International Labor Migration (ILM) is becoming an important factor in socio-economic development and civilizational progress, ambiguously affecting the economies of donor and recipient countries. This is due, on the one hand, to protecting the national labor market from the spontaneous flow of migrant workers, imposes a financial burden on the host state and exacerbates the employment problem, and on the other, through the mass nature of labor emigration, the loss of the more mobile and progressive part of the labor reduction of the intellectual and workable potential of the nation. Therefore, the issue of improving the modern model of regulating international labor migration to maximize the positive and neutralize the negative consequences of this phenomenon both for donor countries and recipient countries is being actualized.

The problem of improving the regulation of the international labor movement is particularly relevant for Ukraine, which is one of the most active participants in international migration processes in the context of European integration trends and entry into the European labor market, which makes it necessary to create a socio-economic basis for regulating migration flows that are in the interests of migrants and the state as a whole.

In the context of the development of integration processes, which increasingly cover global economic relations, the international labor movement plays a significant role. The substantial increase in the scale and

expansion of the geography of international labor migration determines the important influence on the economic, social, demographic and political development of the countries of the world.

At the same time, modern science does not have a single generally accepted definition of the term «international migration». Some researchers are trying to distinguish such concepts as international and external migration. They argue their position by the fact that international migration is carried out under close state control, while in external migration conditions there is almost no such control (for example, the experience of «transparent borders» within the Schengen zone of EU member states is given) [28; 64].

V. Iontsev explains international migration by territorial (spatial) movements of people across state borders related to changes in permanent residence and citizenship due to various factors (family, national, political, etc.), or staying in the country of entry, which has a long-term (more than 1 year), seasonal and pendulum character, as well as with circular trips to work, rest, treatment, etc. On this basis, an international migrant is defined as a person who performs interstate territorial movement (international migration) in order to change his place of residence and work, permanently or for a certain period (from 1 day to several years) [41, p. 30].

In the system of migration processes, labor migration plays a leading role, which is realized in the form of labor migration. The latter has the most important influence on the socio-economic development of any state, since it is directly related to the problems and peculiarities of the formation and use of the country's labor potential.

An analysis of the fundamental works on this issue showed that there are different interpretations of the definition of international labor migration. First of all, this is due to the complexity and multidimensionality of this socio-economic process and their impact on various areas of activity of countries. However, despite the special role of labor migration in the system of international economic relations, there is still no unity in understanding the essence of this phenomenon.

According to the Glossary of the International Organization for Migration, labor migration is the movement of people from one country to another with the intention to receive [16].

The famous Western researcher A. Zolberg believes that labor migration is the movement of workers, due to the development of the transnational capitalist economy, which simultaneously determines the factors of «push» and «pull» of the labor force [7].

Scientist S. Riazantsev proposes his own two approaches to the definition of the concept of labor migration. According to the first (broad), labor migration can be understood as moving for the purpose of employment, including moving to a permanent place of residence, if the main motive is to look for a job. In the second (narrow) approach, the scientist notes that labor migration is temporary population movements with the aim of working

in another region or country with a periodic return to normal or permanent residence, regardless of the method and legality of border crossing and employment, time and frequency of work, that is, without final relocation to a region or country of employment [84, p. 242].

K. Takhtarova notes that international labor migration is the movement of the working-age population from one country to another for more than one year, associated with a change of residence and work [89, p. 38].

I. Kukurudza and I. Romashchenko under the international labor migration understand the interstate movement of labor for the purpose of employment or commercial advantage, which is predetermined by economic and other reasons and is carried out on a temporary basis [50, p. 33–34].

M. Romaniuk connects labor migration with movement, resettlement and movement, on a permanent or temporary basis, of carriers of labor force and pre-crescent potential in the regional, national and interstate migration space in order to ensure an appropriate economic reproduction cycle and own needs of labor migrants [83, p. 30].

In general, in a market economy, international labor migration is the result of geographical differences in the ratio of labor demand and supply. The difference in wage levels encourages workers to move from areas with low wages, in which there is an excess of labor, to areas with higher wages and lack of labor. Migrants fill gaps in labor markets and fill the shortage of skilled labor, thereby stimulating economic growth and the competitiveness of countries.

In addition, globalization, which in a certain way concerns the labor markets of all countries, creates new trends in migration processes, which, in turn, requires changes and transformations of theoretical and methodological approaches to the study of the regulation of international labor migration. Not only migration processes are changing, but also its consequences for society, which are expressed in the form of cash receipts from migrants, which need to be given more attention.

Thus, the issue of regulation of international migration flows is being updated, the basis of which should be, firstly, consistency of the scale, structure and directions of external labor migration with internal migration flows. The lack of coherence leads to the fact that certain countries receive an influx of external migrants, with a sufficient amount of internal labor resources that could be effectively used in place of foreign workers.

Accordingly, it is necessary to conduct continuous monitoring of the balance of labor resources, the socio-economic and work environment of the country. Secondly, the determination of the additional need of countries for foreign labor migrants should occur in the context of professionally qualified groups, taking into account the prospects for socio-economic development and the introduction of new technologies.

In our opinion, the systematization of theoretical scientific approaches to the study of migration processes shows that for their holistic

understanding and study it is necessary to analyze various aspects that interact and complement each other.

In particular, one can agree with the opinion of Yu. Gumeniuk and G. Gogol that it is practically impossible to explain all the features of international labor migration «...within the framework of a single universal concept, which is reflected in the multiplicity of the existence of relevant theories...» [35, p. 491]. This proves that individual theories of international labor migration are imperfect and require an integrated approach to their study.

The study of a significant number of theories in the field of international migration [6; 8; 9; 20; 23; 25; 27; 33; 40, 44; 79; 83; 86; 92], an analysis of their advantages and weaknesses led to conclusions about the multidimensional nature and complexity of international migration processes, the lack of a unified approach to interpreting this phenomenon and its motivations, as well as disregarding in most of them an important aspect of regulating migration flows, which leads to the need to form a concept that takes into account among other prerequisites and the factor of the regulatory impact of these processes.

Considering this, the international labor migration (international labor movement, international labor migration, international labor migration) is interpreted by the author as a result of economic and territorial differences in the ratio of labor demand and supply, involves the movement of labor in the global economy, which is regulated by government agencies non-governmental institutions (international organizations, regional associations, diasporas, international enterprises, other institutions civil society) and migrants, on the basis of the implementation of skills, abilities, labor potential of migrants to meet their economic and social needs and to eliminate the imbalance in the labor market [57].

Today, the international movement of labor is an important component of world economic development. The globalization of the world economy facilitates international economic integration, contributes to the reform of the institutional component, activates the movement of labor in the world.

Owing to the scale of the international labor movement, the need arises to protect the national interests of the nations of the world. At the same time, the problems of various states are unified, and their solution requires the development of appropriate methods and tools for regulating international labor migration.

In the economic literature, the term «regulation» is considered as the implementation of a targeted impact on the socio-economic system or its individual links [38].

«Regulation» is also interpreted as a type of management activity aimed at eliminating deficiencies, inaccuracies, deficiencies, etc. in a managed system through the development and implementation of relevant measures by the management system [95]; or as a form of purposeful managerial influence, it is focused on maintaining balance in a managerial

object and on its development through the use of certain methods, tools, and means [32, p. 105]. On this basis, regulation is considered as one of the management methods.

At the same time, the concept of «regulation of international labor migration» covers the regulation of the processes of interstate movement of persons for the purpose of employment and resolves the following issues:

1) fuzzy definition of legal relations arising in connection with the movement, employment and stay abroad of both the labor migrants and their family members;

2) presence of a number of prerequisites and the destructive consequences of this movement;

3) structural imbalances and deformations of volumes, age, sex, qualification composition, etc. domestic labor market [78, p. 68].

Compliance with international standards for regulating migration flows by the state, taking into account both its own interests and the interests of external migrants, contributes to resolving demographic imbalances, developing the labor market, and helps in forming a positive image in the international arena. Conversely, the lack of a coherent policy that has involved all the factors influencing labor migration provokes further imbalances, deepens the severity of socio-economic problems and can influence the growth of illegal migration.

Thus, it is possible to talk about a definite certainty of problematic issues and components, the security of the tasks and functions of regulating the international labor movement by the countries of the world (Fig. 5.1).

The functions of bodies on international labor migration differ significantly, since in some countries their powers are defined within one issue, while in others they cover a whole range of responsibilities.

Thus, countries have such a system of migration bodies, including the regulation of international labor migration:

1. On migration issues (in Finland, Greece, Norway, Spain – the Office for Foreigners Affairs, Italy, Slovakia – the migration bureau; in Lithuania and Belgium – migration departments).

2. On issues of migration and obtaining citizenship of the country (Citizenship and Migration Bureau (Latvia), Bureau of Immigration and Nationality (Hungary), Department of Migration and Civil Registration (Cyprus), Migration and Naturalization Service (Netherlands, Slovenia).

3. On issues of migration and asylum (Department of Migration Policy and Asylum (Czech Republic), Federal Bureau for Migration and Refugees (Germany)).

4. On border control issues and on work with foreigners (Department of Immigration Policy and Border Control (Austria), Foreigners Service and Border Control (Portugal)).

5. On repatriation and work with refugees (Bureau of Repatriation and Aliens (Poland), Department of Citizenship and Refugees (Malta)) [63].

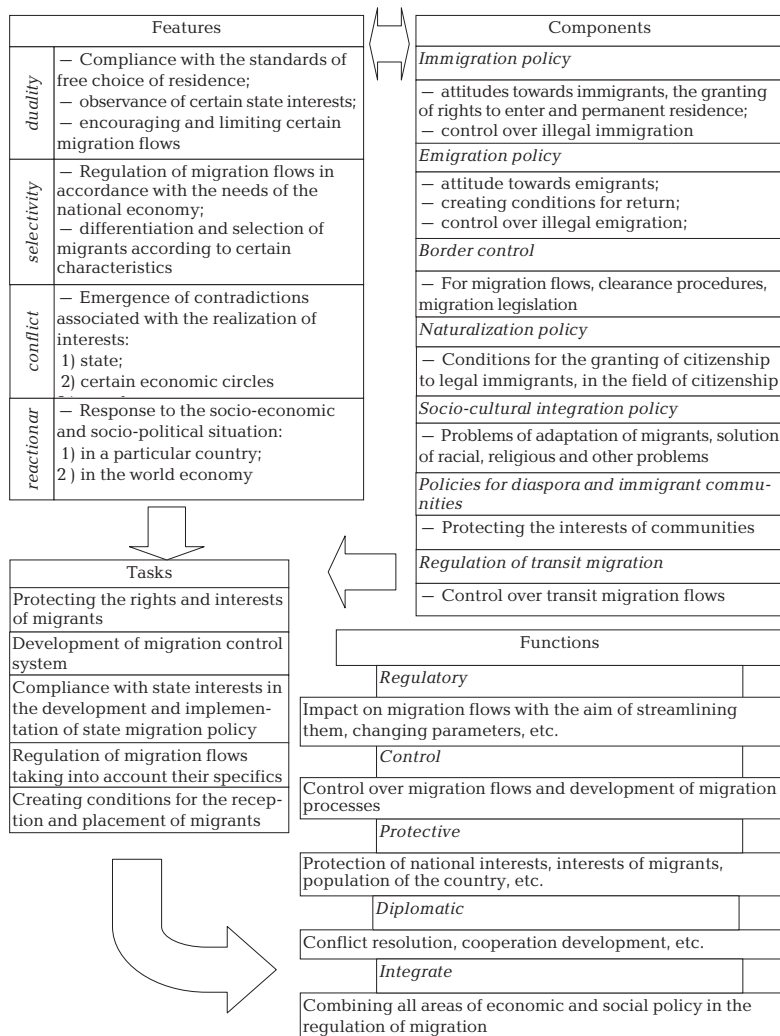


Fig. 5.1 Tasks and functions of regulation of the international labor movement of the countries of the world. *Source: compiled by the author according to [37]*

The mechanism of regulation of international migration includes a number of methods, tools, principles and levers with which the regulation of labor resources at all its levels is regulated [53, p. 75].

The main methods of regulating the international labor movement are administrative, legal, economic and operational. The first include measures

of national legislation that determine the legal, political and professional status of immigrants in a given country, actions of national migration services and measures of intergovernmental agreements to regulate external labor migration.

Economic regulation measures are designed to create motivational incentives to optimize migration flows, in this case labor migration. Operational activities perform corrective and coordinating functions, as well as monitor labor migration processes [64, p. 85].

The analysis of theoretical sources [61; 82; 87] shows that the complex of regulatory methods is quite large and has both direct and indirect effects on international labor migration and the national economy as a whole.

Direct methods are aimed at regulating the volume and structure of emigration flows. They include requirements for labor migration subjects: intermediary enterprises, migrants.

To obtain a license, intermediary companies must have:

- proper organizational and material and technical base, information and computer system, vocational training opportunities, language training for emigrants, etc.;
- experience in the close field of activity – international tourism – and reliable international relations;
- personnel of appropriate qualification;
- scientific substantiation (for example, a plan of activities submitted to the Ministry of Social Policy for consideration);
- material (financial) guarantees and legal responsibility for the results of its activities.

Direct methods also include expansionist policies designed to facilitate entry into foreign labor markets:

- labor dumping, stimulation of concomitant export of goods produced domestically (that is, such groups of citizens are employed, whose work abroad requires the export of domestic products);
- creation of conditions for long-term work abroad;
- expansion of the geographical distribution and professional composition of their emigrants;
- orientation of the training system to the needs of recipient countries, and sometimes training is carried out at the expense of the host countries;
- regulation of fees for intermediary services.

The direct methods include the structural policy, the main objectives of which are to prevent the diversion of workers in deficient specialties abroad. Among the main elements of structural policy are the following:

- limiting the issuance of foreign passports, a ban (direct and indirect) on the departure of certain categories of workers and the introduction of emigration quotas;
- establishment of the terms of compulsory work in the country after the completion of education at the state expense;

- allocation of priority regions of the country according to the criterion of employment;
- differentiation of the rates of currency payments of emigrant workers.

Direct methods include measures to protect the rights of emigrant workers through the use of bilateral agreements and a contract form of hiring labor to work abroad, which is designed to provide certain economic and social guarantees by organizing institutions, foundations, representative offices, appointment of special officials, etc. in order to monitor compliance with the conditions of international agreements on labor migration, the resolution of controversial issues in the host country of migrants and the observance of their fundamental rights. Special attention in this regard deserves the experience of creating special funds, which tasks, in addition to monitoring the observance of the rights of migrant workers and members of their families, include accumulating funds to provide health care, housing, expanding the network of schools and other needs [74].

Indirect methods of regulating international labor migration are designed to create a positive macroeconomic effect of emigration, they include means of encouraging foreign exchange transfers from abroad and their implementation in the country's economy:

1. Granting privileges on foreign currency deposits in national banks (high interest on deposits as compared to domestic deposits, exemption of deposits from taxes, preferential postal and telegraph fees for foreign currency transfers, etc.). In the places of the greatest concentration of emigrants open branches of domestic banks. In parallel with the opening of their own banks, exporting countries resort to the help of foreign banks, providing them with privileges on their territory in order to facilitate the procedure of transferring money from abroad.

2. Sale to immigrant workers of securities not taxable. In India, for example, at the initial stage of the development of the emigration process, migrant workers were asked to purchase non-taxable government securities, payments for which were made only in local currency.

3. Creating a favorable climate for the use of foreign currency to purchase goods, land, production equipment. For migrant workers, the Pakistani government, for example, provided for a favorable regime when they acquired land plots for individual development, as well as the construction of industrial facilities and infrastructure.

4. Establishment of specialized government agencies with advisory functions. This practice takes place in India.

Also indirect methods include special emigrant programs, which are additionally adopted in many countries in order to return migrants from abroad and their employment in the country. These programs include customs policy, in which customs privileges for grocery and consumer goods are differentiated.

The privileges for the first category stimulate the investment of foreign currency savings in the development of private business and form part of the

overall investment policy. Benefits for the second category are designed to saturate the consumer market with scarce goods. For example, in Bangladesh, the government allows migrants to bring into the country at preferential customs tariffs more than 40 items of products – from raw materials to luxury goods [64, p. 87].

The influence of legal and economic methods is complemented by informational measures that are designed to influence the ideological prerequisites of migration and use the socio-psychological factors of its occurrence. Such measures include the use of various tools of information impact on social groups, decisions taken and the behavior of real and potential migrants [43, p. 53].

The tools for regulating state migration policy depend on the type of country participation in global migration processes (donor or recipient of labor resources), which in particular determines the importance and degree of development of two types (directions) of migration policy – immigration and immigration policies. Based on the fact that each of the tools can «dry out», it requires constant modernization in accordance with the country's socio-economic circumstances and changes in the international environment. The constant increase in dependence on global circumstances forms a certain reactionary approach to the development of the mechanism for regulating international labor migration [43, p. 49].

At the same time, state regulation is carried out through the adoption of funded budget programs aimed at restricting the influx of foreign labor (immigration) or at encouraging migrants to return to their homeland (re-emi-gration) [91, p. 284].

The regulation of immigration flows is based on the priority of the entry of specialists, which are the most popular in the country, and restricting the entry of workers of those professions that are redundant in the state. The list of desired immigrants varies by country, but they usually fall into one of the following categories:

- workers who are ready for a minimum fee to perform heavy, harmful, dirty and unskilled work;
- experts of new and promising industries – programmers, highly specialized engineers, bank employees;
- representatives of rare professions – painting restorers, diamond cutters, doctors practicing non-traditional methods of treatment;
- world-renowned specialists – musicians, artists, scientists, athletes, doctors, writers;
- foreign businessmen who transfer their activities in the host country to invest capital and create new jobs [81].

Immigration policy is formed using the tools to regulate international labor migration. The first group of such tools includes «quality requirements for foreign labor». Today, many countries lack qualified personnel. For example, in the UAE, qualified doctors and nurses are needed, in Australia, specialists in computer technology with a higher education, etc. [34].

However, the laws of all recipient countries impose strict requirements on the level of education and work experience in the specialty. A mandatory requirement for the level of education is the completion of a full course of secondary school or vocational school, which must be supported by an appropriate diploma [85]. In most cases, the diploma must be confirmed or assessed in the host country for compliance with the requirements of a specialist in the relevant field.

Priority in hiring is given to host countries by specialists with at least 3–5 years of work experience in the specialty [85]. Letters of recommendation may also be required. For most professions, documents confirming the specified qualifications are required (diplomas, certificates, etc.). For example, in Australia there are specialists with professional experience of at least 3 years, and in Cyprus – 2 years [34].

Immigrants who have special professional skills and professional experience are encouraged. An immigrant must have at least two years of professional experience in the last five years immediately preceding its arrival in the United States. The minimum level of education for immigrants must correspond to the level of the American school (12-year course of study) [81].

For some categories of highly qualified specialists, a simplified scheme of «working authorization» was introduced, which does not require the procedures necessary for issuing ordinary work permits. These professionals include: IT professionals, civil engineers and designers, doctors. Foreigners who, for example, have an invitation from Irish firms to work in these specialties, may receive an «authorization» for two years at the Irish embassy or consulate, which does not require additional work permits and at the same time replaces a work visa.

The advantage of the authorization system is that it does not have limitations specific to the general scheme of work permits, does not provide for «linking» the migrant to the employer and allows migrant workers to freely enter the internal labor market, change jobs, etc.

At the same time, Ireland accepts similar schemes for certain categories of workers (builders, nurses, nurses and junior service personnel), whose offer is limited in the domestic labor market. Thus, Ireland is one of the first European countries to extend liberal immigration schemes to temporary low-skilled migrant workers [91, p. 120].

The next tool for regulating international labor migration is the age limit. Most importing countries have been accepting foreign workers for 20–40 years. The influx of old immigrants, women with small children is limited, since these categories of citizens increase social spending. For example, in Algeria, the age of workers of different specialties should not exceed 40 years; Sweden and Norway are in dire need of oil drilling workers aged 20–40 years [90, p. 121].

Also, the legislation of the host countries put forward stringent requirements for the health of immigrants. Addicts, mentally ill people, people

infected with the AIDS virus are not allowed into countries. Immigrants are required to submit a certificate of their state of health, certified by the consulate of the host country, or undergo a special medical examination. According to the 1990 immigration act, drug addicts and people suffering from various types of mental illness are not allowed in the United States. Swedish and Norwegian employers conduct preliminary medical and psychological testing of foreign entry candidates [90, p. 121].

Restrictions of a personal nature (the so-called social cleansing) can also be instruments for regulating international labor migration. For example, in the United States, the entry of members of a communist or any other totalitarian type party is restricted. Ireland is denied to foreigners previously convicted for more than one year [34].

The next tool is the direct quota of imports of labor. Each year, the host country determines the maximum number of immigrants, which is calculated on the basis of the immigration quota. This is done so that the influx of immigrants does not cause an increase in unemployment in host countries. For example, the ratio of the number of foreigners and local workers in enterprises in Greece should be 1:10 [34].

Quantitative quotas can be introduced: for the economy as a whole, determining the maximum share of foreign labor among other labor resources; for individual industries, determining the maximum share of foreign workers among all employed in the industry; for individual enterprises, determining the maximum proportion of foreign workers in one enterprise; as a limit on the total number of immigrants arriving in the country during the year [42, p. 604].

Economic regulation provides for certain financial restrictions that ensure a reduction in the number of migrants. Importing countries are the first to accept immigrants who are ready to invest in the economy of the host country a certain amount of law and create a certain number of jobs.

According to the laws of some countries, immigrants are required to pay a certain amount of money to the state budget for employment at a local enterprise. For example, in Slovakia, simple migrant workers should pay for employment. In Ireland, a work permit for 4 months must be paid a fee of 100 Irish pounds [34].

Most of the host countries set the maximum duration of stay of foreign workers in their territories. After this period, foreign workers must leave the country or obtain permission to extend their stay in the country. For example, in Zimbabwe, temporary work permits are issued for a period of not more than 5 years, in Poland — by 0.5 years, in Norway — for 1 year [34].

Tools for regulating international labor migration also form the country's national geographic priorities. Virtually every host country legislates a geographical and national immigration structure. It is usually regulated by quotas on the entry of immigrants from certain countries.

Sometimes, in order to avoid accusations of bias and violation of human rights, governments hold within the limits of geographical quotas a lottery

on the right to immigrate between representatives from different countries or one geographic region [90, p. 120]. For example, in the United States since 1924, the structure of immigration quotas established by Congress, which was favorable for residents of North-Western Europe. The reform of immigration law in 1966 stimulated the entry of immigrants from Asia and Latin America. However, since 1990, the New Immigration Law provides great opportunities for qualified specialists from European countries [34].

Also among the instruments for regulating international labor migration is the system of sanctions applicable to illegal migrant workers, persons engaged in the illegal import of labor, employers illegally using migrant workers.

Explicit and implicit prohibitions on hiring foreign labor are usually contained in laws on professions that foreigners are prohibited from engaging in. Explicit prohibitions directly list industries or specialties in which foreigners cannot work. Hidden bans, on the contrary, establish a list of industries or specialties in which only citizens of a given country can work, thus blocking foreigners' access to them.

Usually for any movement of an immigrant, change of specialty, change of place of work, you need to get additional permission from the immigration authorities, which may refuse to issue it. The legislation establishes sanctions for violation of immigration. They can be imposed both on the migrants themselves and on those who help them illegally enter the country or hire them to work. For unlawful entry into the country, deportation, fines and even imprisonment are provided for. Such a repeated offense is punishable by repeated deportation, a large fine and longer sentences. For illegal mediation or hiring an illegal immigrant, there are heavy fines that can lead to bankruptcy and the closure of businesses. Also in some cases, it is possible and imprisonment of the offender [84].

Another group of instruments are repatriation programs, the purpose of which is to stimulate the outflow of migrant workers. Usually, three types of programs are used:

- a) financial compensation programs that provide cash payments to immigrants for the premature termination of their activities;
- b) vocational training programs with the aim of facilitating immigrants' return home and their employment at home;
- c) program of economic assistance to the regions of mass emigration.

The use of these tools has its own specifics. The extent of their use directly depends on economic and social problems, their combination with needs. Therefore, restriction of migration flows is increasingly based on the principle of selectivity, focuses on certain categories of migrants, distinguished by qualitative characteristics (age, gender, level of education and training, etc.). The «hard» nature of restriction regarding certain categories of immigrants must implement the selection (filtering) functions through differentiating the conditions of entry, employment, family reunification, and the like. Regarding

emigrants, restriction can be carried out indirectly (except in certain cases) and be of a «soft» nature. Restricting the departure of certain categories of potential migrants is mainly solved by economic incentives [43, p. 52].

The main levers by which the mechanical movement of the working population is regulated are financial, legal, monetary, tax, administrative, informational and social levers for regulating international labor migration.

Summarizing the views of scientists and specialists, let's highlight the basic principles on which modern international labor migration is built:

1. Systematic — implies taking into account in the conduct of the migration policy of the relationship of all spheres of public life of migrant workers, including law enforcement, as well as economic and social spheres.

2. Complexity — contains the most complete accounting for the migration of various factors of social reality, understanding the influence of multidirectional social processes on migration, correlating the goals and objectives of migration policies with the basic needs and interests of migrant workers in this area.

3. Objectivity — means the orientation of migration policy to take into account basic socio-economic trends in the development of society, uncertainty factor and probability of social dynamics, correlation of the wording of migration policy objectives to real goals of social systems, needs and interests of groups, communities, associations, and individuals.

4. Scientific — means conducting a migration policy based on modern methods of scientific knowledge, allowing for effective social diagnostics, forecasting, planning and modeling of migration processes.

5. Perspectives — provides for the implementation of migration policy based on scientific forecasts, do not claim to be an exhaustive prediction of the future, but form its strategic goals and objectives.

6. Situational — focuses migration policy on the study and development of technologies for solving specific contradictions and social problems, focus on the real social reality of the development of migration processes.

7. Legality — allows to talk about the presence of established and fixed procedures for the migration processes that do not violate the rights of migrant workers.

8. Timeliness — means the prompt solution of urgent migration problems of compliance with basic social needs and interests on the basis of a developed system of social and legal technologies aimed at constant monitoring of migration processes.

9. Innovation — implies the orientation of migration policy on the disclosure and development of the positive potential of migration processes, variability, flexibility in accordance with the requirements of the external environment [93, p. 43].

In general, each country develops its own measures to regulate the inflow and outflow of labor, depending on its internal economic situation. Moreover, a characteristic feature of the regulation of migration processes

is that national migration legislation is decisive in resolving controversial issues [34].

Traditional government remigration measures are as follows:

1. Re-emigration incentive programs. They include a wide range of activities, ranging from measures for the forced repatriation of illegal immigrants to the provision of material assistance to immigrants wishing to return to their homeland. However, the effectiveness of these programs is quite low.

2. Immigrant training programs. It is assumed that after receiving education in a developed country, immigrants can count on a more prestigious and well-paid job in their homeland. However, the interest of immigrants in these programs was rather low, because they did not give guarantees of employment after returning to their homeland.

3. Programs of economic assistance to countries of mass emigration. Developed countries enter into agreements with labor exporting countries to invest part of the remittance of workers to their homeland and part of public funds in the creation of new enterprises in developing countries that could become a place of work for re-emigrants (for example, Germany and Turkey) [37].

At the same time, there is also a policy aimed at the re-emigration (or repatriation) of a certain part of the population of the country. Repatriation is the return to the country of residence and restoration of the rights of citizens who, for various reasons, are located outside their country such as refugees, prisoners of war, displaced persons and immigrants [88].

The governments of the countries pay considerable attention to the ethnocultural environment, which allows preserving the national traditions of immigrants and maintaining their ties with their families. Often re-emigration is supported financially, for example, migrants are given the means to return to homeland.

The analysis of modern approaches to the regulation of international labor migration has made it possible to single out the levels: individual, national, transnational, regional and international. This allows to identify further relevant directions, methods and tools of regulation.

At the individual level, decisions and actions of specific subjects of migration policy are analyzed: politicians, experts, as well as migrants themselves in cooperation with the indigenous population.

At the national level, the regulation of the international labor movement is embodied in the conduct of the state migration policy, which is part of the country's social and economic policy and provides for the determination of the regime of border crossing by citizens and foreigners, the establishment of conditions for foreigners to stay and conditions for their admission to employment [52, p. 180–181].

The state migration policy should be understood as a system of goals, principles and measures for regulating the migration movement of the population, optimizing the parameters of the dynamics, number and qualitative

structure of the country's migration flows. The main area of implementation of state migration policy is the regulation of external migration in order to protect national interests, including the improvement of the demographic situation, the standard of living of the population and the security of the national economy with labor resources.

The implementation of state migration policy measures involves not only state authorities, but also various non-governmental organizations whose activities are aimed at streamlining migration processes and protecting the rights of migrants.

The basis of the state migration policy is its goals, which are set on the basis of migration priorities (in particular in the area of labor resources) of the state, taking into account the need to protect the interests of other subjects of international relations, as well as migrants and national workers [43, p. 48 – 49].

Migration policy should be considered as an activity of state power to streamline migration processes, as well as a complex of general and special measures that are implemented by the state and aimed at changing the qualitative structure and parameters of the dynamics of migration flows of the country based on direct and indirect effects [43, p. 48].

The transnational level of regulation of the international labor movement outside state borders reflects the activities of non-state institutions such as transnational corporations (TNCs), enterprises with foreign labor and foreign capital.

Transnational corporations, within which there are special forms of movement of qualified personnel, play an important role in the formation and development of the international labor market. TNCs influence the development of the international labor market in various ways, primarily through the transfer of production and capital from country to country. In addition, with their industrial, technical and economic policies, they contribute to changing the sectoral and qualification structure of the labor force of national labor markets.

The sufficiently large financial and production potential of TNCs allows them to select the most highly qualified labor force on the international labor market and, moreover, to form it in accordance with their goals and specific requirements [66].

The regulation of migration processes is also carried out at the regional (integration) level. This level assumes a set of measures by a group of countries to regulate labor migration between the countries participating in an integration association.

Questions of the international movement of labor are considered in the framework of integration agreements in the creation of trade and economic blocs of countries. The terms of the free movement of citizens of the State of the Economic Community of West African Countries (ECOWAS) and the Common Market for Eastern and Southern Africa (COMESA) were almost

completely agreed, but these agreements were not implemented and did not concern the implementation of a common migration policy; also agreements on facilitating the regime of population migration were signed by the countries of the Andean Community of Nations and the Common Market of the Southern Cone MERCOSUR (however, many of the decisions taken are not yet implemented in practice).

For such groups as the Commonwealth of Independent States (CIS) and the Organization of the Black Sea Economic Cooperation is characterized by increased partnership of the participating countries in the field of migration policy. In contrast, for example, the agreement on the establishment of the North American Free Trade Agreement (NAFTA) did not touch upon the issues of migration of the population [72].

The most striking example in the development of the system of regulation of migration processes is the experience of the European Union (EU), one of the basic principles of which is the freedom of movement of people. The international integration system for regulating migration, created in the EU (as in other groupings), is also based on the system of European law.

Thus, under the auspices of the Council of Europe, the European Convention for the Protection of Human Rights and Fundamental Freedoms (1950), the European Settlement Convention (1955), the European Social Charter (1961), the European Code of Social Security (1964), the European Convention on Social Security (1972), the European Convention on the Legal Status of Migrant Workers (1977), etc. were adopted. One of the basic documents is the European Convention for the Protection of Human Rights and Fundamental Freedoms, defines freedom of movement and choice place of residence (Protocol No. 4, Article 2) [72].

Back in 1985, a Schengen agreement was signed between 5 countries, which set the standards for freedom of movement and choice of place of residence. The following convention was signed in 1990 (entered into force in 1995) and meant the abolition of control at the internal borders of countries and the creation of common external borders, where immigration control (when entering the Schengen zone) is carried out in accordance with uniform procedures (uniform rules for issuing visas, granting rights to asylum controls at external borders, etc.). For this purpose, the Schengen Information System (SIS) was created to compile databases and exchange information about a specific category of persons and goods. Subsequently, the Schengen area has been expanded several times and includes 25 countries (24 – EU countries and Switzerland) [72].

In 2004, the Green Paper on the EU Policy on the Regulation of Economic Migration was published, which, as the main guidelines, introduced a focus on attracting highly skilled migrants to national labor markets [80].

To ensure normal interethnic relations since 2000, the formation of anti-discrimination legislation began, extended to the sphere of employment, education, health, etc. [26].

So, since 2001, The Action Programme to combat discrimination and the EQUAL program, since 2005, are being implemented. The strategy «Non-discrimination and equal opportunities for all» is being introduced. At the same time, even with the coordinated participation of the EU structures in the field of political integration of foreigners across countries, large differences remain (including at the level of national regions), as well as in the area of housing policy (regulating the resettlement of migrants) [72].

In 2009 in the context of the Lisbon Treaty, the «Stockholm Program» for the development of the space of freedom, security and justice for 2010 – 2014 was adopted that involves the consolidation of the Schengen and Visa codes.

By the end of 2009, an «Action Plan in the field of legal migration» on the conditions of entry and residence of third-country nationals was adopted [80, p. 43; 47 – 49]. These documents are based on the legal framework that regulates the international movement of labor, and they also define the limits for the implementation of state migration policy.

It is necessary to note the migration regulation scheme, applied in the European Union, Blue Card Scheme, adopted by the EU Council Directive in May 2009. This scheme was developed specifically to simplify the conditions for highly qualified specialists from third countries to enter and reside in the European Union, as well as the unimpeded movement of professionals throughout the EU [31, p. 163]. The Blue Card provides:

- ability to work in any EU country;
- salary equal to the salary of EU citizens;
- free movement on the territory of the Schengen countries;
- social benefits (for example, unemployment benefits);
- Possibility of family reunification in a simplified procedure;
- Possibility to get an education (or provide education to children), to join labor and public organizations on a par with citizens of the European Union;
- Ability to obtain the status of «permanent resident of the EU» after 5 years in the EU.

There are three conditions for obtaining a «Blue Card»: lack of EU citizenship; higher education or extensive work experience; have a signed work contract or a formal job offer, and the salary should be 1.5 of the average in the country, in some cases 1, 2 (for in-demand occupations) [95].

The growth of the scale of the international labor movement and its influence on national economies, as well as the aggravation of a number of common problems for countries have led to the intensification of its regulation at the international level.

The regulation of international migration processes at the intergovernmental level is: one-sided – this is the state regulation of migration processes in accordance with their own interests and without coordination with other states; bilateral is the regulation of migration processes on the basis of bilateral interstate agreements; multilateral – based on the signing of

international agreements, conventions at the global level, as well as within individual integration groups [49].

Each country is guided by its own directions and goals of international labor migration, the choice of methods, tools and measures to regulate it. However, an essential condition for the functioning of a democratic society is compliance with the relevant legal norms and standards enshrined in the documents of international organizations, and the regulation of migration labor processes is carried out primarily in accordance with the norms of international law [54, p. 18 – 20]. This is due to the signing of various international agreements and the activities of special international organizations (Table 5.1).

Table 5.1 Regulation of international labor migration at the international level

Name of the organization	Directions of regulation	Regulation tools
1	2	3
International Labor Organization	<ul style="list-style-type: none"> – Development of coherent policies and programs aimed at solving social and labor problems; – development and adoption of international labor standards and monitoring their implementation; – assistance to member countries in solving problems of employment, reducing unemployment and regulating migration; – protection of human rights (rights to work, association, collective bargaining, protection from forced labor, discrimination, etc.); – the fight against poverty, for the improvement of the living standards of the working people, the development of social security; – assistance in vocational training and retraining of workers and the unemployed; – development and implementation of programs in the area of improving working conditions and the working environment, occupational safety and health, protecting and restoring the environment; – development and implementation of measures to protect the most vulnerable groups of workers (regulation of working time, combating unemployment, establishing a guarantee of wages and recognizing the principle of equality for equal work, protecting workers from occupational diseases and injuries at work; regulating social insurance and social security and others) 	<ul style="list-style-type: none"> – Convention (ILO Convention No. 97 on Migrant Workers, ILO Convention No. 48 on the Establishment of a System of International Cooperation for the Preservation of Rights arising from Insurance for Disability Social Security, Convention No. 118 on Equality of Citizens of the Country and Foreigners and Stateless Persons in the Field of Social Security, ILO Convention No. 143 on Abuse of Migration and the Provision of Equality in the field of social and civil rights of migrant workers and others); – recommendations; – programs

Continuation of Table 5.1

1	2	3
International Organization for Migration	<ul style="list-style-type: none"> – For humanitarian purposes (assistance to people affected by conflicts and their consequences, refugees and returnees, displaced persons, both within their own country and abroad, people who want to reunite with their families); – for development (ensuring the flow of qualified labor of the state, taking into account the priorities of their development, the needs and interests of the local population in the host countries) 	<ul style="list-style-type: none"> – Programs; – recommendations; – consulting services; – information campaigns
International Organization for Migration	<ul style="list-style-type: none"> – Technical cooperation programs (provision of advisory services to governments, inter-governmental and non-governmental organizations in the field of migration, the development of the necessary integrated measures to address migration issues in a changing international environment, and the strengthening of the capacity of states by training personnel in migration management services and providing them with technical support); – carries out research and analysis of information (holding regional and international seminars and conferences to discuss migration issues, study the causes and consequences of migration processes, the state and needs of migrants, develop and conduct information campaigns) 	
World Health Organization	Regulates health issues in the field of migration	Development of standards for migrant health. These standards are used in the processing of documents by the ILO and other international organizations
United Nations Educational, Scientific, Cultural Organization	Regulates the issues of education, science, culture in the field of migration	Development of educational documents for migrants and their families
The World Bank	Assistance in solving problems related to migration and remittances of migrants through lending initiatives and measures to improve migration policies	<ul style="list-style-type: none"> – Loans; – setting interest credits; – consulting assistance

Continuation of Table 5.1

1	2	3
World Trade organization	Providing migrants access to the labor market	Agreements (General Agreement on Trade in Services (GATS), which defines the methods of providing services (cross-border, mode of foreign consumption, commercial presence, presence of individuals))
Continuous migration monitoring system	<ul style="list-style-type: none"> – Coordinates the activities of the national immigration offices of 29 leading countries of the world (OECD members); – collects statistics and reviews trends in international migration, as well as migration policies of countries 	Reports on International Migration

Source: compiled by the author according to [1–4; 11; 16; 19]

The fundamental role in regulating the international labor movement belongs to the United Nations (UN) – the most influential international institution to which Ukraine is a member. Describing the UN, it should be emphasized that within this institution, declarations, covenants and conventions are adopted, the main purpose of which is to introduce universal human values and priorities in international and interstate communication, in particular by ensuring effective international legal regulation.

The UN has the following divisions:

- Committee on the Protection of the Rights of All Migrant Workers and Members of Their Families,
- Human Rights Council,
- Trade and Development Board,
- The Population Fund (UNFPA),
- The Committee on Human Rights and others, which coordinate the development of international labor migration and migration policies of individual countries.

A number of specialized agencies, such as the World Health Organization and the United Nations Educational, Scientific and Cultural Organization (UNESCO), in their activities related to migration management issues that are relevant to their competence.

The main activities of the UN in the field of international migration are determined by the UN Economic and Social Council. Within the UN, a Global Migration Group has been formed, the purpose of which is to strengthen coordination within the UN system and together with the International Organization for Migration to ensure the effectiveness of

international migration policy. On the basis of this group, a Consultative Forum has been created, open to all UN member states, and is an international partnership structure for discussing and resolving issues related to international migration [3].

The UN has a specialized intergovernmental organization in the field of migration – the International Organization for Migration (IOM), working closely with government, intergovernmental and non-governmental partners. IOM was founded in 1951, today it includes 157 countries and 10 countries have observer status, it also has offices in more than 100 countries of the world. IOM promotes humane and orderly migration for the common good by providing services, support and advice to governments and migrants [1].

An important role in the regulation of the international labor movement belongs to the International Labor Organization (ILO) – a specialized UN agency founded in 1919, which activities are aimed at promoting social justice and protecting internationally recognized human rights and labor rights.

The main objectives of the ILO in accordance with its status are as follows:

- protection of the interests and rights of workers through the regulation of working time;
- the fight against unemployment;
- establishment of a guarantee of wages and recognition of the principle of equality for equal work;
- protection of workers from occupational diseases and injuries at work;
- regulation of issues of social insurance and social security, etc. [2].

The ILO's normative work involves the development and adoption of conventions and recommendations, as well as the monitoring of their implementation, which, in principle, is considered to be central to the organization's activities. About 400 conventions and recommendations were adopted by the ILO, each of which deals with various aspects of the labor legal personality of the main subjects of labor law.

The activities of the UN specialized agencies are coordinated and supplemented by the Department of Economic and Social Affairs, provided by the United Nations Development Program (UNDP), the United Nations Conference on Trade and Development (UNCTAD), the United Nations Population Fund (UNFPA), the Office of the United Nations High Commissioner for Human Rights, The United Nations High Commissioner for Refugees, the United Nations Office on Drugs and Crime (UNODC), the Office for Solving Humanitarian Problems, and others. Also, the World Bank and its associated international financial institutions.

This demonstrates the priority attention to solving global humanitarian and environmental problems, ensuring economic development and protecting human rights, creates an additional context of global regulation of the international labor movement [3].

Coordinates the activities of national immigration offices of the Continuous Reporting System on Migration (SOPEMI), established in the

framework of the OECD [80, p. 84]. This organization provides statistical data collection and a review of trends in international migration, as well as the migration policy of OECD member countries [19].

The World Trade Organization (WTO) is actively involved in regulating the international labor movement. The WTO has signed the General Agreement on Trade in Services (GATS), which defines the methods of providing services (cross-border, mode of foreign consumption, commercial presence, presence of individuals). The terms of the agreement provide access to the labor market for service providers. However, due to the fact that a number of issues (security, family reunification, etc.) are not fully settled, the characteristics of the economic activities of migrants largely depend on the national policies of individual countries [4].

Contractual sources of international labor law are international treaties concluded on a multilateral basis. They are mainly devoted to the protection of the rights of international migrants in the field of settlement, immigration, vocational education, social security, as well as the protection of the rights of seasonal workers, etc.

Among the UN international acts, the main place is taken in 1948 by the Universal Declaration of Human Rights [39], the fundamental document of international regulation of the movement of labor resources, which determines the human right to choose the country of residence, work, etc. Also, the important documents regulating the international movement of labor are:

- UN International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families from 1990;
- International Covenant on Economic, Social and Cultural Rights of 1966;
- International Covenant on Civil and Political Rights of 1966;
- Declaration of the UN General Assembly on human rights in relation to persons who are not citizens of the country in which they live (since 1985) [36; 48; 71].

A significant role here is played by such documents as the International Convention on the Elimination of All Forms of Racial Discrimination of 1965 [70], the Convention on the Elimination of All Forms of Discrimination against Women of 1979 United Nations Convention on the Status of Refugees 1951 [45].

The most important documents regulating the international movement of labor should also include the conventions of the International Labor Organization:

- ILO Convention No. 97 On Migrant Workers;
- ILO Convention No. 48 Concerning the Establishment of a System of International Cooperation on the Preservation of Rights arising from insurance for disability, old age and on the occasion of the loss of the breadwinner of a family;

- Convention No. 157 On the Establishment of an International System for the Conservation of Rights in the Field of Social Security;
- Convention No. 118 On Equality of Rights of Citizens of the Country and Foreigners and Stateless Persons in the Field of Social Security;
- ILO Convention No. 143 on abuses in the field of migration and on ensuring equality in the field of social and civil rights of migrant workers, and others [46].

As of November 1, 2015, Ukraine has ratified 8 of the 8 ILO core conventions, 4 of 4 policy conventions, and 57 of the 177 technical conventions – a total of 69 conventions, of which 61 are in force and 8 are denounced [45].

In 2015, the Verkhovna Rada of Ukraine adopted, as a whole, the Law of Ukraine «On ratification of the ILO Convention on Main Objectives and Social Policy Standards No. 117» (No. 0055). The convention, in particular, provides for the adoption of measures at the international, regional or national levels to promote progress in areas such as health, housing, food, education, care for the well-being of children, the situation of women, working conditions, improvement of living conditions in rural areas. protection of the rights of migrant workers and social security. The Convention provides for the abolition of discrimination on grounds of race, color, sex, religion, nationality or trade union membership [29]. Thus, research and generalization of world experience in the use of methods and tools for regulating the international movement of labor has allowed them to be systematized depending on:

- level of regulatory implementation (individual, national, transnational, regional and international);
- subjects of regulation (migrants, politicians, experts, government agencies, private companies, TNCs, integration associations of countries, international organizations);
- regulatory impact on the international movement of labor and the national economy (direct, aimed at regulating the volume and structure of emigration flows and indirect, ensuring the use of benefits from emigration flows by encouraging foreign exchange transfers from abroad and their implementation in the economy) (Table 5.2).

Table 5.2 Methods and tools for regulating international labor migration

Subjects of regulation	Methods		Tools
1	2		3
INDIVIDUAL LEVEL			
Mi-grants, politicians, experts	Operative	Measures to inform labor migrants about the situation on the international labor market and their rights	Development of information programs

Continuation of Table 5.2

1	2		3
NATIONAL LEVEL			
Government agencies, private companies	<i>Immigration direction</i>		
	Direct	<p>Administrative and legal Socio-economic</p> <p>Measures determining the legal, political and professional status of immigrants</p> <p>Financial constraints; recovery (exemption from recovery) or reduction (increase) of various fees and duties; attracting foreign workers</p>	<p>Restrictions on: professional qualifications; age limit; personal character; health conditions. Quotas, limits; penalties</p> <p>Restrictions on hiring labor; attracting migrants investing in the country's economy; employment fee; registration fees, salary, advanced training; employment; provision of proper medical care, etc.</p>
Government agencies, private companies	Operative	Strengthening additional operational control measures to ensure the established migration order	Checks of migrants; filtration measures for migration flows; creation of a centralized information resource
	<i>Emigration direction</i>		
	Direct	<p>Administrative and legal Socio-economic</p> <p>Requirements for subjects of labor migration; structural policy (preventing the outflow of workers in scarce specialties); protection of the rights of emigrant workers</p> <p>Expansionary policy (facilitating the conquest of foreign labor markets)</p>	<p>Licenses; documents defining the legal, political and professional status of emigrants; limit of issuance of passports, emigration quotas; differentiation of the rates of foreign currency payments of emigrant workers; bilateral agreements, contractual employment</p> <p>Stimulation of concomitant export of goods; creating conditions for long-term work abroad; training programs for recipient countries; regulation of fees for intermediary services</p>
Indirect	<p>Operative</p> <p>Means of encouraging foreign exchange transfers from abroad and their effective use</p> <p>Repatriation programs that aim to stimulate the outflow of migrant workers; remigration programs</p>	<p>Benefits on foreign currency deposits in national banks; the creation of specialized institutions with advisory functions; the opening of foreign branches of domestic banks; creating a favorable climate for the use of foreign currency to purchase goods, land and the like</p> <p>Economic assistance to the region of mass emigration; training programs for departing; material compensation for early termination of activities; customs benefits, programs to encourage the return of migrants from abroad and help them find employment</p>	

Continuation of Table 5.2

1	2	3	
TRANSNATIONAL LEVEL			
TNC, enterprises with foreign capital and labor	Administrative and legal Socio-economic	Measures to attract highly qualified foreign labor; attraction of foreign investment funds, private money transfers	High profit payment; educational requirements, age limit
REGIONAL LEVEL			
Integration associations of countries	Administrative and legal	Protecting the overall labor market from unwanted immigrants	Agreements (multilateral, bilateral), treaties, rules and contracts concluded between integration integration states (European Convention for the Protection of Human Rights and Fundamental Freedoms, European Convention on the Legal Status of Migrant Workers, Schengen Agreement, Blue Card, etc.)
INTERNATIONAL LEVEL			
International organizations	Administrative and legal	Intergovernmental agreements on the regulation of labor migration	Convention, agreements, covenants, laws (International Covenant on Economic, Social and Cultural Rights, UN International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families, UN General Assembly Declaration on Human Rights to Persons which are not citizens of the country in which they live, etc.)

Source: compiled by the author according to [34; 42; 43; 47; 49; 64; 72; 74; 82; 84; 87; 90]

5.2 Analysis of the dynamics and structure of the international labor movement

An important component of the global economic system is international migration, the volume and influence of which are constantly growing in the world. Special attention of international organizations and national governments requires the study of international labor migration, which is determined primarily by high dynamics, rapid response to changes in society and the economy. At the same time, the policy of the countries receiving labor migrants, aimed at encouraging their integration into the system of societies and encouraging the immigration of highly skilled workers. In the

countries of origin, the policy on migrant workers is aimed at regulating emigration, taking dual citizenship, encouraging their return to their homeland, and the like. The causes and ambiguity of the consequences of international labor migration require studying the current state of migration flows in the world, identifying the factors of their formation, disclosing existing threats, predicting opportunities and negative consequences of international labor migration necessitate the development of an effective migration policy to regulate it.

According to the latest World Bank data, more than 247 million people or 3.4 % of the world's population live **outside their countries of birth** [1].

For the period from 2000 to 2015, the number of migrants in the world has grown rapidly. Thus, over the past 15 years, it increased by 41.11 %, over 10 years – by 27.84 %, over 5 years – by 13.9 %, and in 2015, compared to 2013, by 14.13 % (Table 5.3).

The main causes of migration processes are labor shortages as a result of declining birth rates, the desire for better employment, **internal conflict and war, natural disasters, climate change, and increased access to information by telephone and the Internet** [58, p. 54].

Table 5.3 Dynamics of the number of international immigrants in 2000 – 2015

Group of countries by level of development	Number of international immigrants									
	2000		2005		2010		2013		2015	
	million people	% ¹	million people	% ¹	million people	% ¹	million people	% ¹	million people	% ¹
World as a whole	172.7	2.8	190.6	3	213.9	3.1	231.5	3.2	243.7	3.3
Most developed regions	103.4	8.7	115.4	9.5	127.7	10.3	135.6	10.8	140.5	11.2
Developing countries	59.3	1.4	64.8	1.4	74.7	1.3	84.9	1.4	91.3	1.8
Least developed countries	10.1	1.5	10.5	1.4	11.5	1.3	10.9	1.2	11.9	1.3

Note: ¹ Of the total population.

Source: calculated by the author according to [13–15; 17].

Analyzing the data in Table 5.3, it can be concluded that, in general, there is a medium-term positive trend in the stable component of international immigration. The largest number of immigrants in all the years of the study period is observed in the most developed countries. So, in 2015, it is 140.5 million people, the second place is occupied by developing countries – 91.3 million people, in third place, respectively, the least developed countries – 11.9 million people.

The above dynamics is primarily due to the fact that international migration is mainly carried out with the aim of finding employment and receiving wages higher than at home.

Over the past 15 years, the gap between developed countries and developing countries is getting wider. This, in turn, increases the concentration of labor migrants in developed countries, since the income that they can receive from them significantly exceeds the level of income that they receive in developing countries and in the least developed countries [59, p. 29].

According to the UN, in high-income countries there are more than two-thirds of all international migrants. In particular, in 2015 their number was 71 % of the total number of international migrants, or 173 million people, of which 124 million migrants come from countries belonging to the Organization for Economic Cooperation and Development (OECD), and 49 million people come from countries non-OECD. The remaining 29 % are in middle- and low-income countries, 61 million people and 9 million people, respectively [18].

It should be noted that international statistics covers international migrants and refugees, that is, persons who are forced to emigrate mainly due to political and military conflicts, that is, such persons are not labor migrants.

According to the UN, by the end of 2015, 65.3 million people were refugees, asylum seekers, or internally displaced persons. Over the past year, their number increased by 5 million people. Thus, approximately every 113th person on the planet is a refugee [18].

The following countries accepted the largest number of refugees: Turkey (1.6 million people), Pakistan (1.5 million people), Lebanon (1.2 million people) and the Islamic Republic of Iran (1.0 million people). The majority (53 %) of refugees came from three countries: the Syrian Arab Republic (3.9 million people), Afghanistan (2.6 million people) and Somalia (1.1 million people) [18].

If we assume that all immigrants, except for refugees, are labor migrants, their share in the total migration will be about 92 %. This suggests that the general trends of international migration are determined precisely by labor migration, and therefore the latter must be investigated using statistical data on the total migration of the population, presented by such international organizations as the UN, the World Bank, Eurostat, etc.

The regional distribution of international migrants (Table 5.4) shows that for the period 2000 – 2015. The largest number of migrants concentrated mainly in Europe. The 2015 data shows that in this region their number reached 76.15 million people, that is, 31.25 % of the total number of migrants in the world.

In Asia, the number of migrants amounted to 75.08 million people, that is, 30.8 %. A slightly smaller share of migrants is in North America (5.4490000 people), Africa (20.65 million people), Latin America and the Caribbean (9.23 million people), Oceania (8.1 million people).

Table 5.4 Regional distribution of international migrants for 2000 – 2015

Years	Indicators		Regions						
			Europe	Asia	North America	Latin America and the Caribbean	Africa	Oceania	Total
2000	Immigration rate	million people % ¹	56.3	49.3	40.4	6.6	14.8	5.4	172.8
	Emigration rate	million people % ¹	32.6	28.5	23.4	3.8	8.6	3.1	100
2005	Immigration rate	million people % ¹	49.8	64.7	3.1	24.3	21.6	1.2	164.7
	Emigration rate	million people % ¹	30.2	39.3	1.9	14.8	13.1	0.7	100
2010	Immigration rate	million people % ¹	64.1	53.4	45.4	7.2	15.2	6	191.3
	Emigration rate	million people % ¹	33.5	27.9	23.7	3.8	7.9	3.1	100
2015	Immigration rate	million people % ¹	52.1	72.3	3.5	28.8	24.3	1.4	182.4
	Emigration rate	million people % ¹	28.6	39.6	1.9	15.8	13.3	0.8	100
growth 2015/2000	Immigration rate	%	72.4	65.9	51.2	8.2	16.8	7.1	221.6
	Emigration rate	%	32.7	29.7	23.1	3.7	7.6	3.2	100
2015	Immigration rate	million people % ¹	56.5	88	4	33.6	28	1.6	211.7
	Emigration rate	million people % ¹	26.7	41.6	1.9	15.9	13.2	0.8	100
2015	Immigration rate	million people % ¹	76.1	75.1	54.5	9.2	20.6	8.1	243.6
	Emigration rate	million people % ¹	31.2	30.8	22.4	3.8	8.5	3.3	100
growth 2015/2000	Immigration rate	%	59.6	99.8	4.3	35.8	32.6	1.8	233.9
	Emigration rate	%	25.5	42.7	1.8	15.3	13.9	0.8	100
growth 2015/2000	Immigration rate	%	35.17	52.33	34.90	39.39	39.19	50.00	40.97
	Emigration rate	%	19.68	54.25	38.71	47.33	50.93	50.00	42.02

Note: ¹ Of the total.

Source: built by the author according to [13–15; 17; 18]

According to 2015, 104 million people, or 43 % of migrants, are Asian. Europe ranks second in the region of origin of labor migrants (62 million people, or 25 %), the next emigration regions are Latin America and the Caribbean (34 million people, or 14 %), North America (4 million people, or 2 %) and Oceania (2 million people, or 1 %). In this case, from 2000 to 2015, the number of emigrants from Asia grew faster than in other regions: by 2.8 % per year, compared with 1.2 % in Europe [18].

In 2015, only 10 countries account for 51.4 % of the total number of international migrants (Table 5.5). The United States of America is the leader in migrant income (in 2015, 46.63 million people, or 19.1 % of the global number of migrants). Germany and Russia took about 12 million migrants each, Saudi Arabia – 10.19 million people, Great Britain and Northern Ireland – 8.54 million people each, United Arab Emirates – 8.1 million

people, Canada – 7.84 million people, France – 7.78 million people, Australia – 6.76 million people and Spain – 5.85 million people person. In Ukraine, the number of immigrants was 4.83 million people.

Table 5.5 Top 10 countries by number of immigrants in 2015

No.	Country	Number of migrants, million people	Share of migrants in the total population, %	Share of the global number of migrants, %
1	USA	46.63	14.5	19.1
2	Germany	12.00	14.9	4.9
3	Russia	11.64	8.1	4.8
4	Saudi Arabia	10.19	32.3	4.2
5	United Kingdom and Northern Ireland	8.54	13.2	3.5
6	United Arab Emirates	8.10	88.4	3.3
7	Canada	7.84	21.8	3.2
8	France	7.78	12.1	3.2
9	Australia	6.76	28.2	2.8
10	Spain	5.85	12.7	2.4

Source: calculated by the author according to the data of [18]

For the period 2000 – 2015, the largest number of migrants in the world is concentrated in the United States of America, because they are attracted by high wages, the possibility of self-realization and advanced training, proper working conditions for migrants, social security, high economic development of the country, infrastructure development and others. However, the issue of illegal migration, for 2015, remains a problem for the United States of America. The number of illegal immigrants who lived there was 11 million people [17].

According to the UN, during the investigated period, a significant number of migrants were received by Germany and Russia. The reasons for this in Germany were not only high economic development, a loyal migration policy of the country, the possibility of obtaining German education, but also a high threshold for the acceptance of refugees by the country. As a result, only in 2015 Germany took less than 800 thousand refugees [3]. Since 2013, the number of immigrants in Russia has decreased due to the military-political conflict in the country and the abolition of migration benefits for Ukrainians.

Since 2013 there has been an influx of a significant number of migrants to the United Arab Emirates: from 2010 to 2013. Their number increased by 4.54 million, that is, more than doubled, and in 2015 it was already 8.1 million [14; 15]. This is due to the acceleration of economic development: for example, in the last 5 years more than 1 million jobs have been created

for migrants in the United Arab Emirates, and the country has attracted by its high wages (1.500 – 2.700 USD per month), social guarantees and developed infrastructure [51].

Among donor countries of international migrants (Fig. 5.2), their number in 2015 was distinguished by India (16 million people), Mexico (12 million people), Russia (11 million people), China (10 million people). In 2015, 6 million people went abroad from Ukraine.

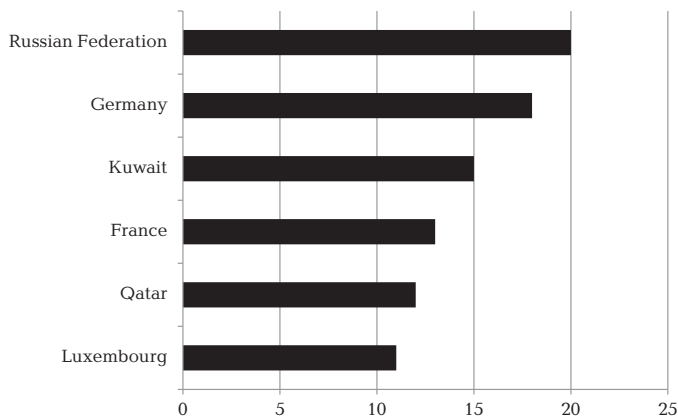


Fig. 5.2 The main donor countries of international migration 2015, million people.
Source: built by the author according to [18]

Comparing the concentration of immigrants and emigrants, it is necessary to consider the migration corridors in the world (Fig. 5.3).

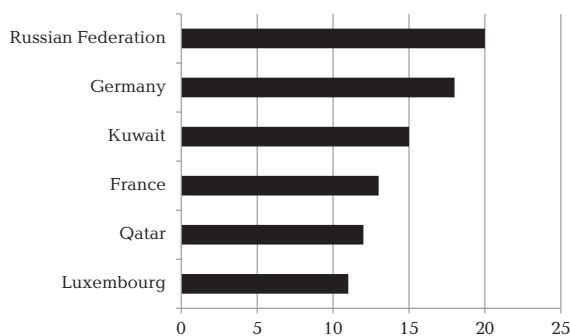


Fig. 5.3 Top 6 corridors in 2015 with the largest number of migrants from their country of origin to the country of destination, million people.
Source: built by the author according to [18]

The data in Fig. 5.3 show that the «Mexico-USA» became the very corridor of migration in the world in 2015: 12 million migrants moved from Mexico to the United States of America, which is about 98 % of the total number of Mexicans who emigrated. The following five corridors number 3 million migrants each.

The popularization of these corridors is due to the better standard of living conditions, economic opportunities, as well as the geographical proximity of these countries.

As already noted, the main reason for encouraging migrants to travel abroad is the realization of their own capabilities, including professional, the difference in social security and economic security in different regions of the world, in particular between developed countries (OECD) and developing countries, as well as transitional economy.

The bulk of international labor migrants in developed countries are service workers, builders and workers employed in industry.

However, today their qualitative differentiation is taking place more and more actively, primarily due to an increase in the share of qualified specialists of a different profile in the total number of the migrating population.

Destination countries can receive significant benefits from the influx of skilled migrants, as skilled labor contributes to increasing the productive potential of a certain country's economy and introducing innovations, especially in areas related to scientific and technological progress.

According to the latest World Bank data, the proportion of migrants with higher education is 27.6 % of the total number of migrants belonging to the OECD, among them 28 % are women [21]. In general, most international migrants are of working age. In 2015, persons between the ages of 20 and 64 years old migrated, and the average age of migrants was 39 years. Young international migrants live in Africa, their average age is 29 years old, Asia (35 years old), Latin America and the Caribbean (36 years old). Senior migrants travel to Europe (43 years), North America (42 years) and Oceania (44 years) [18].

The significant contribution of donor countries is also to the increase in the number of scientists, doctors, engineers and technicians in recipient countries of foreign labor resources. A fairly common way of «brain drain» in developed countries is to involve talented foreign youth in training [55, p. 185].

«Muscle flight» (traveling abroad of leading athletes), «flight of talents» (migration of famous artists, singers, actors, filmmakers and other creative individuals), as well as «flight of brides» (traveling to another country, mainly women with the aim of creating a family with foreigners), increases annually [97, p. 129].

Another characteristic feature of the development of modern migration processes is their enhanced feminization. Until recently, it was considered that the overwhelming majority of migrants are men. Women, if they migrated, were mainly as family members who moved to another country after a male migrant.

However, according to statistics, today the female component of migration flows is practically not inferior to the male. Thus, according to the

latest UN data, in 2015 the share of women migrants is 48 % of the total number of international migrants in the world [18].

It should be noted that in the regional context, the share of women in the overall structure of the migrant population is not the same. Thus, the largest concentration of migrant women is observed in Europe, North America and Oceania, while in Latin America and the Caribbean the proportion of migrant women is equal to the proportion of male migrants in Asia and Africa.

According to some Western researchers, there are two main groups of factors affecting the increased participation of women in the migration processes of our time.

First, it is a logical consequence of attracting more women as labor into the labor markets of donor countries. With the increasing integration of national economies, this workforce is increasingly beginning to look for more profitable applications abroad. Secondly, the involvement of a large number of women in the ranks of international migrants is also due to the need for them in certain sectors of the national economy of the host countries [11; 30].

To the above trends in the development of international migration in modern conditions, in our opinion, it is worth adding the growth of the role of remittances of workers, which are a mandatory attribute of the globalization of migration processes.

Private migrant remittances play an important role in the economies of donor and recipient countries of labor resources, replacing other types of remittances to the states and contributing to the acceleration of GDP growth.

The return movement of migration capital and, especially, its size have a significant impact, mainly on the countries of origin of migrants. The increase in the total number of labor migrants in the world has become a factor for a significant increase in the total volume of remittances from countries-importers of labor to the countries supplied. If in 2006 these transfers amounted to about 330 billion USD, then as of 2015, the amount of remittances made by migrants was already 601 billion USD [21].

It should be noted that these statistics are not accurate, since the volumes of illegal transfers are not taken into account.

Changes in the global dynamics of remittances of migrant workers during 2006 – 2015 are shown in Fig. 5.4.

At the same time, for some small developing countries, foreign exchange transfers account for more than 20 % of GDP, which significantly affects their economies (Fig. 5.5).

The leading recipient of financial assistance for workers is India, which in 2015 received transfers in the amount of 72 billion USD; China (64 billion USD). Somewhat less was the migration capital, which went to the Philippines and Mexico – 30 and 26 billion USD, respectively (Fig. 5.6). According to the World Bank, Ukraine in 2015 received 6.2 billion USD [21].

A characteristic feature of the migration capital movement is its focus on developing countries (Fig. 5.7).

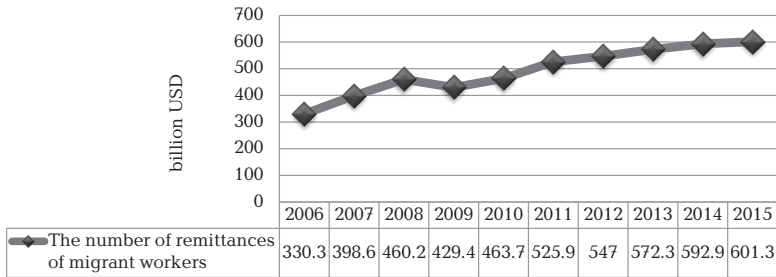


Fig. 5.4 Dynamics of remittances of migrant workers in 2006–2015, billion USD.
Source: built by the author according to [21]

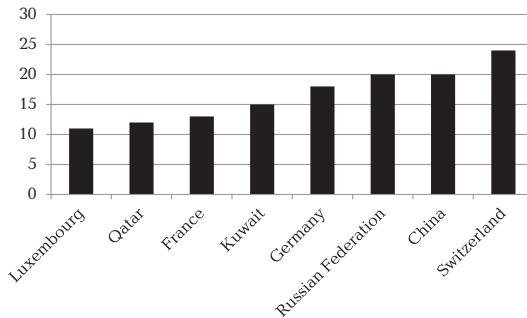


Fig. 5.5 Share of remittances in GDP of host countries, %.
Source: built by the author according to [21]

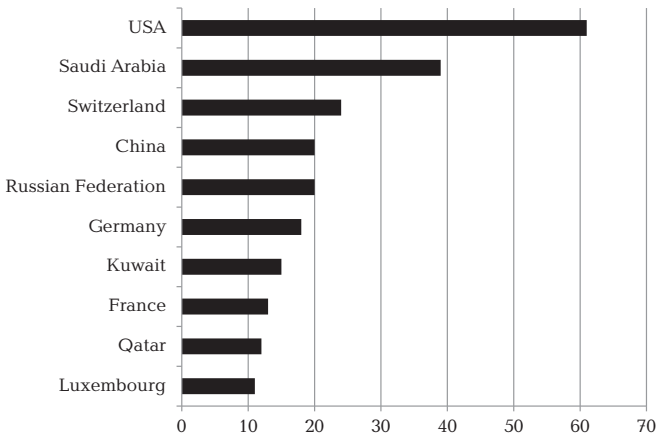


Fig. 5.6 Leading countries in remittances in 2015, billion USD.
Source: built by the author according to [21]

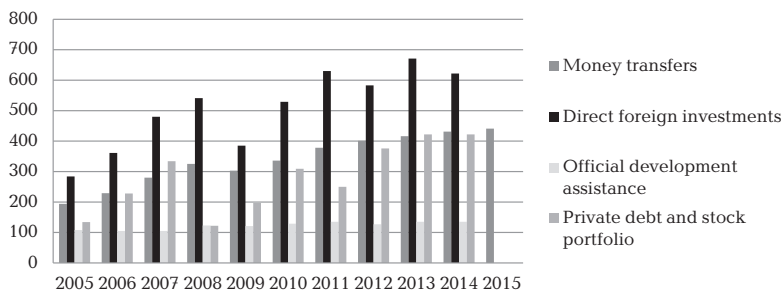


Fig. 5.7 Comparison of the main foreign exchange earnings in developing countries, billion USD. *Source: built by the author according to [21]*

In the countries from which migrants come, labor migration can lead to a reduction in the burden of part-time employment and, through remittances, contribute to economic growth and human development.

So, in 2015, the volume of remittances to developing countries reached 441 billion USD. Last year, the figure was 431 billion USD, more than three times the amount of official development assistance. At the same time, remittances of migrants to their homeland also significantly exceeded the total foreign direct investment in all developing countries, with the exception of China [21].

Migration capital under certain conditions has a positive impact on the countries that import it (Fig. 5.8).

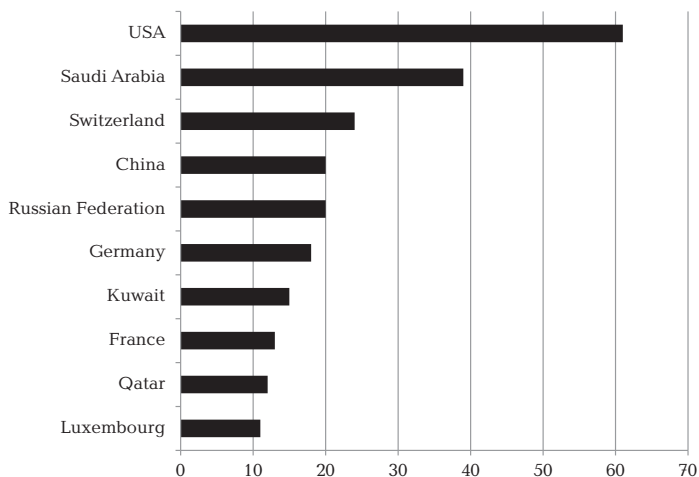


Fig. 5.8 Geographical structure of remittances by their largest volumes in 2015, billion USD. *Source: built by the author according to [21]*

Fig. 5.8 shows that in 2015 the total remittances came from the USA – 61 billion USD. Most of these funds went to Mexico and China. Significant amounts of financial injections from labor migrants were created in Saudi Arabia (almost 39 billion USD), Switzerland (25 billion USD), China (20 billion USD) and Russia (19.7 billion USD) [21]. To a certain extent, they contribute to the improvement of the living conditions of relatives and close labor migrants remaining in their homeland.

Thus, in most countries of the world, international migration is primarily associated with high unemployment and low wages. The specific features of international labor migration are explained not only by internal economic processes that occur in a particular country, but also by external political and social circumstances that motivate people to migrate to other countries.

Positive impact on the development of the economies of countries and increase the livelihoods of their people produce remittances of migrant workers. The rapid activation of international migration, the main component of which is labor migration, greatly enhances the importance of regulating migration processes. In our opinion, the main task of regulating migration processes should be to ensure economic balance and social justice in the world's labor markets. This requires the development of an efficient and effective migration policy algorithm that will not only minimize migration losses, but also create favorable conditions for migrant workers in each country to return to their homeland.

5.3 Conceptual model of the international labor movement regulation

In order to effectively regulate international labor migration in Ukraine, first of all, it is necessary to determine the socio-economic consequences of migration and identify the factors that influence it. At the global (international) level, all factors influencing international labor migration can be divided into six groups: economic, demographic, social, cultural, political, and environmental. Analysis of scientific publications of domestic and foreign scientists devoted to the problems of population migration [62; 69; 83], allows to divide all factors into «push-pull» factors (Table 5.6). Population migration is a characteristic phenomenon of modern society. Depending on the direction and scale, migration processes in a certain way indicate the existence of problems or relative advantages in the living conditions of a country's population, the state of its economy and the level of social standards.

In the context of the rapid activation of the international mobility of the population of Ukraine, the relevance of the issue of regulating migration processes is significantly increasing. An effective migration policy is necessary both to minimize the risks associated with migration and to use the significant positive migration potential in the interests of the development of the regions and the country as a whole.

Table 5.6 Influencing factors on international labor migration

«Push» factors	«Pull» factors	Indicators determining the quantitative assessment of factors
1	2	3
Economic		
Low GDP	High GDP	GDP level
Low salary	High profit payment	Minimal salary
Low quality of life	High quality of life	Quality of Life Index, Human Development Index
High unemployment	Availability of jobs	Unemployment rate
Economic instability	Stable economic development	Prosperity index
Burdensome taxation system	Liberal taxation system	Index of economic freedom
High level of prices for goods and services	Low prices for goods and services	Consumer price inflation, cost of living index, national consumer price index, purchasing power parity
Low level of competitiveness of the country	High level of competitiveness of the country	Global Competitiveness Index
Burden of doing business	Ease of doing business	Ease of doing business
Demographic		
High birth rate	Low birth rate	Population growth rate, population density, demographic load factor
Social		
Low quality of education	High quality of education	Knowledge economy index, Education index, Adjusted savings: expenditure on education (% of GNI)
No health system available	Affordable and quality healthcare system	Health expenditure (% of GDP), health index, mortality rate due to an infectious disease, HIV incidence, tuberculosis, malaria
Lack of opportunities for professional self-realization	Availability of opportunities for professional self-realization	Economic freedom index, Press freedom index
Low level of science	High level of science development	Press freedom index, Global innovation index, High tech export

Continuation of Table 5.6

1	2	3
Cultural		
Religious persecution	Freedom of religion	Index of social discord
Ethnic discrimination	Lack of ethnic discrimination	Global gender inequality index
Racial discrimination	Lack of racial discrimination	Index of social discord
Political		
Lack of democracy	Developed democracy	Democracy index
Political instability	Stability of the political system	Index of political and civil liberty
Corruption of power structures	Lack of corruption	Corruption perception index, Index of economic freedom
Presence of military conflicts	Lack of military conflicts	Defense spending (% of GDP)
High crime rate	Low crime rate	Security index, crime rate, homicide rate, attack rate, theft rate
Ecological (natural)		
Polluted environment	The best environmental situation	The index of environmental efficiency, emissions of pollutants, sources of quality drinking water (% of the population with access)
Poor quality of drinking water and food	Clean drinking water and environmentally friendly food	Lack of nutrition, the incidence of diabetes, sources of quality drinking water (% of the population with access)

Source: built by the author according to [12; 22; 24; 75–77].

The migration policy is designed to balance the national and regional labor market by influencing the direction of movement, the sex and educational composition of migrants. The main goal of the migration policy of any state is to ensure a rational distribution of the population from the point of view of effective economic growth, even development of individual regions and smoothing the socio-economic differentiation of living conditions of citizens.

In order to develop an effective migration policy for countries, it is necessary to consider two models for regulating migration flows: a model for regulating the volume of immigration and a model for regulating the level of migrants' adaptation to the socio-economic conditions in the country.

These models establish the functional dependence of the volume of immigration and the level of adaptation of migrants from those presented

in Table 5.6 indicators allow determining priority directions of migration policy of states and justifying measures and instruments for their implementation.

The most important factors for international labor migrants are the level of gross domestic product, the level of wages, the quality of life in the country, the level of prices, the level of development of science, the quality of education and health care.

Consequently, when making a decision on immigration to any country, economic and social factors are necessarily taken into account, however, it should be noted that the relationship between economic factors and the immigration rate is significant. In particular, there is a large interdependence of the migration indicator with the level of GDP, which confirms the need to further assess the macroeconomic impact of immigration.

For countries with high incomes and incomes above the average, an increase in immigration has a negative effect on GDP, and for countries with low incomes and income levels below average, the impact is positive. Since in each of the groups there are countries with a large difference in the indicators characterizing the main economic, political, social and other factors, it is advisable to analyze the macroeconomic impact of immigration for each country separately.

The need to replace immigration flows can be explained by the imperfect system of adaptation of migrants in the country, the high level of unemployment, the lack of state funds for the maintenance of foreign labor, and the like. The need to increase the number of immigrants in the country is explained by the effective system of adaptation of migrants to the socio-economic conditions of the country, the lack of an adequate number of specialists in certain sectors of the economy, and the like.

For many countries, the human development index is particularly sensitive. It is also determined that with a change in the human development index, the number of international migrants will rapidly increase. In our opinion, this is explained by the fact that today migrants are increasingly focusing not only on the quantitative measurement of wages, but also on the possibility of using it to meet their own needs.

When deciding on migration to another country, people take into account such criteria as: the quality of education, the security level in the country, accessibility and high level of health care, the level of prosperity of the country, the ecology of the area and others.

A study of the regulation of international labor migration [57] in the countries of the world, the identification of problems in this area and the implementation of practical calculations made it possible to formulate a conceptual model for regulating the international movement of labor (Fig. 5.9), which involves the formation of multi-level institutional support with the appropriate application of and instruments at an appropriate level of regulation.

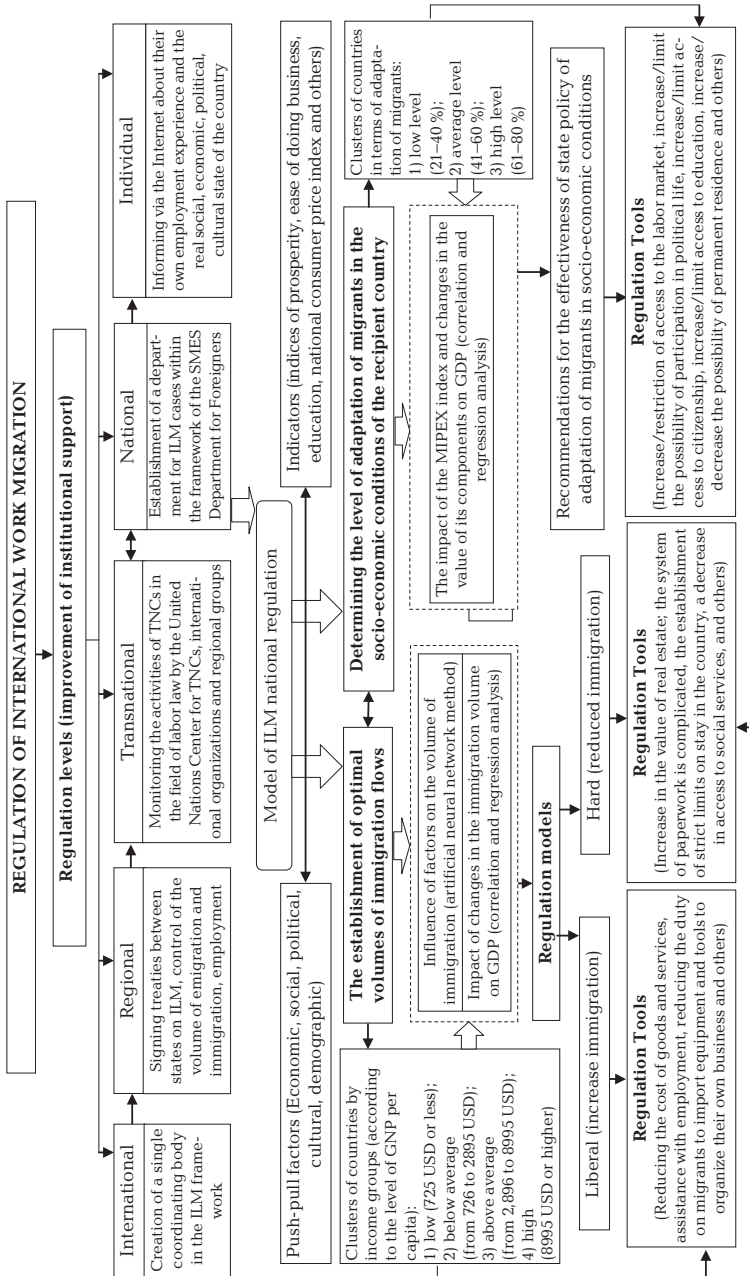


Fig. 5.9 Conceptual model of the international labor movement regulation.
Source: built by the author

This approach is based on a dual model for estimating the volume of immigration and its impact on the host country's GDP with the determination of the level of adaptation of immigrants to the socio-economic policy of the recipient country will be calculated below.

The proposed conceptual approach allows, on the one hand, to determine the quantitative dependence of the immigration volume on the push-pull factors (economic, demographic, social, cultural, political factors, highlighting countries with positive and negative effects from increasing immigration, and on the other hand, the interrelation of these factors with the level of adaptation of migrants in the socio-economic conditions of life in the host country (access to the labor market, education and health, There are seven reunions for her, citizenship, permanent residence, political participation).

The implementation of the proposed model will justify the strategic directions of regulation of the international labor movement in the context of increasing or weakening migration flows and the degree of tolerance of the national migration policy for immigrants with appropriate regulatory policy instruments aimed at obtaining a positive effect from international labor migration. Since the strategy of state migration policy should take into account not only the volume of migrants arriving and departing in the country, but also those immigrants living in the state.

For the effective use of migrants already living in the country, the influence of the MIPEX index has been established, which determines the level of migrants' adaptation to the countries' GDP. For countries with a low level of adaptation, migrants need to reduce access to health care and the possibility of permanent residence, as well as weaken the system of obtaining citizenship and strengthen the role of anti-discrimination in the country. Countries with a medium level of adaptation of migrants need to reduce the access of immigrants to the labor market, increase the access of immigrants to medicine, provide greater opportunities for political participation and ease the conditions for permanent residence. Countries with a high level of adaptation of migrants need to increase access to the labor market and education, impede access to citizenship and family reunification, reduce financial support for anti-discrimination policies.

According to [57], most countries of the world should focus on reducing the number of immigration. This trend is inherent in low-income and lower-middle-income countries. This is due to the unsuitable adaptation policies of immigrants, the inability of low-income countries to retain foreign labor due to lack of funds, high unemployment, and the like. The countries that should be attracted to foreign labor were high-income countries, which can be explained by the well-adjusted adaptive policies of immigrants, the ability of these countries to realize the professional skills of immigrants, and the availability of jobs. For Ukraine, such migration policies are relevant today: a reduction in the volume of immigration into the country and an increase in the level of adaptation of immigrants living in Ukraine.

Based on the above and research [57], the main principles of the improved Concept of State Migration Policy are proposed, the main objectives of which will be:

- ensuring sustainable socio-economic and demographic development;
- meeting the needs of the country's economy in the workforce of adequate quality and in sufficient quantities;
- reduction of losses of the population of the country (region, city, village) as a result of emigration;
- protection of domestic migrants who have gone abroad, their interests and rights, close cooperation with them in matters of the development of the country;
- the return of migrant workers, the creation of attractive conditions for the use of their currency savings in small and medium-sized businesses, agriculture, housing and others;
- rendering assistance in returning home (repatriation) descendants of ethnic Ukrainian and national minorities living in the country;
- limited admission of temporary economic immigrants and the development of a mechanism and criteria that would allow the effective use of the potential of immigrants in the country;
- attraction and effective use of private remittances sent by migrants;
- adaptation of foreign migrants to the socio-economic conditions in Ukraine, prevention of racism and xenophobia.

The formation of the above objectives gives reason to develop a set of areas for regulating international migration.

The first direction aimed at reducing emigration from the country by improving the socio-economic situation of the country. Particular attention in the definition of tools in this area is paid to preventing the emigration of young people, constitutes a significant potential for the country (since it is educated, speaks languages, the latest technologies, etc.) and certain categories of specialists (for example, athletes, doctors), provides for countering «brain drain».

The toolkit to ensure this direction is aimed at improving the welfare of potential migrants and includes:

1. High wages — for migrants of all professions, mainly for young people and highly qualified specialists, taking into account regional characteristics of the labor market. It is worth introducing given the resources of the country and providing social guarantees. Remuneration may increase simultaneously with the increase in labor productivity and reorientation to other areas of activity. The level of wages depends on the needs of the national labor market.

2. Preferential loans — for professionals of high professional level, taking into account regional differences in labor and real estate markets.

3. Special benefits — for all migrants, first of all highlighting young people and highly qualified specialists and paying attention to the standard of living in different areas of the country, these benefits are designed to correct.

They are also an additional incentive to work in Ukraine, because they give the right to reduce taxes on land, rent, tariffs, business activities and the like.

4. Free consultations — for all future emigrants. It is applied in such spheres: banking, legal, security.

5. Low interest rates on loans — for those business entities that are active in the global economy, in different countries, given their business climate.

6. New jobs — will help the development of the economy of individual regions and the country as a whole created taking into account the needs of the national labor market. Encouragement for the introduction of innovations, the expansion of the economy and promising enterprises should be priorities. People who work in public positions should be given the opportunity to move up the career ladder.

7. Operating expenses on departure — their volume is planned to increase for all emigrants; certain occupations may include the requirement to compensate for state spending on education. In parallel with this, the payment for registration of a package of documents for emigration will increase and additional payments for medical insurance of temporary emigrants are introduced.

8. Reducing the differentiation of regions in the level of employment, wages, real estate value, which provides for a corresponding reduction in external flows of migrants, compensating them by providing additional prospects for internal migrants, given the difference in levels of socio-economic development in different areas of the country. Strategic development plans at the state and city level, as well as the improvement of the demographic condition and territorial location of industrial enterprises become decisive in this.

9. Campaigning — for all groups of future emigrants to provide information, would change their opinion about emigration and reduce the desire to move. This tool operates through the media.

10. Increase in the size of pensions — focused on those professional groups that are necessary for the development of the country's economy.

11. Education and retraining — mainly for young people and representatives of certain specialties, worked in public positions, taking into account the dominant trends in regional labor markets and migration patterns within the country.

12. Allocation of funds to fight corruption, improve security and the environment — focused on all groups of migrants to increase the attractiveness of the country for permanent residence.

13. Neutralization of attracting Ukrainian-intellectuals — a special tool that is designed to reduce the volume and intensity of emigration of highly qualified specialists and rare professions. A system of measures is being developed aimed at keeping people from moving by providing them with various grants, benefits, senior positions and the like.

The next direction in the sphere of regulation of emigration flows is aimed at regulating the external employment of citizens of the country.

Employment by profession and short-term stay in a foreign country helps migrants to maintain and increase their potential and realize it at home. To implement an effective state policy in the field of foreign labor activity of migrants, it is necessary first of all to study their educational level, to know whether their place of work abroad meets their qualifications, to provide an opportunity to improve the professional level of migrants and recognition of qualifications by destination countries as Ukrainian. In addition, there is a need for legislative regulation of social and pension security issues for migrants, in particular with regard to contributions to the Pension Fund of Ukraine, and crediting the period of work abroad as insurance experience.

Since today the majority of Ukrainian labor migrants work in the informal sector of destination countries (for example, the household), the process of regulating foreign employment may include the conclusion of agreements on employment of citizens between the State Employment Service of Ukraine and state employment associations and employment agencies that cooperate with subjects of the informal sector destination countries. Such agreements that ensure the social rights of migrants and give them legal status can create favorable conditions for legal temporary emigration [73, p. 189]. Special attention should be paid to the expansion of interstate cooperation in the field of protecting the rights and interests of emigrants on the basis of the norms of international law. To do this, countries (integration groups), which are the centers of attraction for Ukrainian emigrants, must sign the relevant agreements on: employment of migrants, minimum wage, respect for the rights of migrants and under. Coordination over the observance of the rights and interests of migrants is carried out in cooperation with the migration services of the countries of immigration with the participation of diplomatic missions of the country [43, p. 166].

In order to strengthen the protection of the rights and interests of migrant workers abroad, it is necessary: to intensify negotiations with the recipient countries of the workforce to expand the legal channels of employment of workers in their territory, guarantees their rights; to sign intergovernmental agreements on social protection and pension coverage of migrant workers, which would envisage taking into account the aggregate insurance experience acquired in the territory of the country and countries of employment; to provide migrants through diplomatic missions abroad, call centers and websites of state bodies in the country with reliable information about their rights and obligations, to establish a system of legal and social assistance abroad to those migrants who need it; maintain close liaison and interaction with organizations of migrants, assist in the development of cultural life and Ukrainian education and upbringing in communities of migrant workers abroad [68].

A separate direction is necessary to highlight the attraction of private remittances and their implementation in the economy of Ukraine, as well as the use of transnational migrants. The relevance of the chosen direction

is confirmed by the economic and mathematical analysis and research conducted in section 2.3 of this research.

Reducing the negative effects of emigration of Ukrainian labor is possible under the condition that migrants' capital is transferred to investment in two ways:

1) directing private remittances to savings – interest rates on emigrant bank deposits should increase. Those banks that do this should be given additional benefits to expand the possibilities of using these funds;

2) transformation of the capital of emigrants into investments – will help to realize the state programs for the creation of investment funds of all forms of ownership, which will contribute to the improvement of the national economy. For this, the state should provide guarantees for the return of funds and insure these contributions [43, p. 166 – 167].

Measures to attract remittances to migrants and the use of transnational migrants are:

- provision of certain benefits to children of immigrants who will study in higher educational institutions of Ukraine;

- facilitating the participation of domestic scientists, temporarily employed in other countries, in Ukrainian research projects, as well as conferences, symposia and other scientific events;

- official employment of highly qualified specialists in the fields of education, medicine, etc.;

- creation of special banking programs, creation of joint investment funds, issue of bonds for diasporas. In the country, programs for issuing and placing bonds for the diaspora can be introduced under the auspices of the government and the National Bank of Ukraine (NBU). It is advisable to distribute and service these bonds to banks through their branches abroad and in close cooperation with the country's consular missions;

- reduction in the cost of money transfers by migrants to Ukraine (reduction of commission percent)

- raising interest rates on bank deposits, replenished by remittances;

- introduction of special state programs for the creation of investment funds that accumulate cash contributions of emigrants and finance high-yielding projects in the private or public sector; creating favorable conditions for investing remittances into production, providing relevant information to migrants, developing attractive investment programs for immigrants;

- improvement of the system of statistical accounting of remittances (conducting surveys);

- dissemination of information and free advice on the use of Internet banking and mobile banking.

Reducing the cost of transferring funds from abroad is the most important direction of migration policy, because high transfer costs force people

to use unofficial transfer channels. We see a way out in increasing the number of operators and international transfer companies and, thus, increasing competition in the market of payment operators.

Let's offer the use of such additional tools to improve the implementation of remittances to the economy of Ukraine:

- elimination of barriers to the introduction of funds into the country through the electronic payment system PayPal;
- signing or improving agreements with international payment systems and international electronic payment systems (WebMoney, Opal-Transfer, etc.) to reduce the tariffs of their services and expanding the boundaries of their actions regarding remittances to the country;
- creation of own international electronic payment system at favorable rates for transfers to the country;
- signing of agreements with foreign banks to establish a low commission for international transfers between bank accounts [60, p. 153].

Let's consider the directions of state migration policy in the field of immigration regulation. Analyzing the experience of Poland, it should be noted that its migration policy after entering the EU was aimed at actively attracting immigrants, primarily from Ukraine and Belarus.

According to Polish Prime Minister Szydlo, Poland over the past few years has received about a million migrant workers from Ukraine. This made it possible for Poland to «fight off» from the migrants from the countries of the East imposed by the EU. First of all, Poland is interested in seasonal migrants. However, the Polish authorities began to actively attract Ukrainian specialists to official work. There was even an official website for employment for the Ukrainian. This approach has already allowed the Polish government to close the hole in the budget of the pension fund. According to Polish media, Ukrainians have already provided 300,000 Poles with pensions. An effective migration policy provided the Polish authorities to reduce the retirement age to 65 for men and 60 for women [68].

The first direction in the regulation of immigration flows is to attract migrant workers who are ready to invest in the country's economy and foreign students on a fee basis. According to this direction, the following tools are offered:

- reducing the amount of expenses for entry – low cost of services for the processing of migration documents and the state reimbursement of additional services;
- provision of housing temporarily or for a long term through state programs for emigrants and immigrants (for certain groups of migrants of certain professions);
- receipt by immigrants of additional benefits on land, credit, tax, etc., provision of free services to those who are planning to engage in business. The amount of benefits is influenced by the amount of investments and their location;

- ensuring the access of immigrants to education and health care on an equal basis with the citizens of the country. Creation of information programs for training in the country;
- simplified paperwork;
- free consulting services;
- manual on legal registration;
- reduction of import duties on equipment and tools for immigrants in order to organize their own business in Ukraine;
- dissemination of information on priority areas and investment opportunities;
- international agreements on education in Ukrainian universities.

Separately, it is necessary to highlight the problem of unwanted immigrants, as well as the problem of illegal migration. To do this, it is necessary to update the quota system in the country in accordance with current problems in the labor market, as well as to use a strict immigration control system.

The next area is the reduction of immigration (tighter controls). It should be noted that this direction excludes immigrants who are ready to invest in the economy of the country and foreign students on a paid basis (defined in the previous direction).

The next direction concerns the regulation of the activities of immigrants in the country. In our opinion, within the framework of this direction, legalization of illegal immigrants already present is necessary in some cases. This is carried out in the form of immigration amnesties and by general simplification of legalization procedures, which contribute to obtaining official documents and official employment. Legalization can be accompanied by measures for the optimal resettlement of migrants in accordance with changes in the territorial structure of the economic complex and demography [43, p. 170]. Also, special attention should be paid to the protection of the rights and interests of immigrants in Ukraine, which provides for the implementation of international treaties in this area and the implementation of international legal norms. Among other things produced in the framework of cooperation with some states.

During the improvement of the legal policy in the field of migration, it is necessary first of all pay attention to the protection of the rights and interests of migrants in our country and abroad. Innovations should not lead to discrimination or worsen the lives of migrants. The legislation in this area must be stable, and any changes (or their projects) in it are made public.

To achieve this goal, it is necessary to do the following:

- 1) use the experience of EU visa centers;
- 2) become a member of all thematic programs of the EU concerning international migration;
- 3) provide all possible assistance to the EU mission in its fight against illegal migration and to introduce new programs in this field [43, p. 145].

The aforementioned areas and instruments of regulation form a system within the framework of the strategy for regulating international labor migration. This strategy is the basis for the strategic management system, which is developed during the strategic planning of the socio-economic development of the country.

The basic element of the strategy is the goals and objectives aimed at solving tactical and strategic problems of economic development associated with external migration flows. At its core, the migration management strategy is a national program that enshrines the strategic approach to managing the development of migration potential in the context of integration into the global space (systems of global and regional migration flows) [43, p. 149].

The purpose of the strategy is to improve the state migration policy. The proposed regulatory strategy for ILM is based on four stages:

- stage I (implemented within 2 years) – includes analyzing the structure and trends of international migration flows, identifying gaps in legislative support in relation to the sphere of migration relations, assessing the ILM effects;
- stage II (implemented within 2 years) – involves the study of the influence of factors on the ILM, the definition of the components of migration policy, which require improvement, the formation of priority areas of ILM regulation, the determination of the impact of private remittances in the economy;
- stage III (implemented within 5 years) – creating a strategic action plan to increase the positive socio-economic effect of ILM, the distribution of migrants by categories and geographic areas, determining their optimal number, signing new agreements with integration associations, international organizations and individual governments, development of tools to ensure the direction of ILM regulation;
- stage IV (implemented within 5 years) – development of the concept of state migration policy, implementation of certain measures, checking the adequacy and effectiveness of the proposed concept, identifying the shortcomings of the ILM regulation strategy, preparing a new improved strategy.

The last stage of the ILM regulation strategy includes an assessment of the effectiveness of state migration policy, which involves the use of special indicators, such as the marginal propensity of the population to emigrate, the coverage rate of emigration of highly skilled labor resources due to immigration, the intensity factor of migration outflow/inflow of highly skilled labor resources and others.

Modern methods for determining the regulatory impact on the activity of international labor migration processes do not take into account the features characteristic of labor resource movements (uncertainty, risks, and non-linearity of connections). The proposed theoretical and methodical approach of dual modeling of the influence of push-pull factors on migration

volumes and on determining the impact of the MIPEX migratory adaptation index based on the decomposition of indicators of 150 countries according to income levels and effects on the economy from changes in immigration. It allows to establish: the influence of factors on the ILM and the macro-economic effect of immigration; the relationship of factors with the level of adaptation of migrants and determine its impact on GDP. Such an approach allows substantiating the priority directions of regulation by the ILM states and the tools to ensure it, which will enable the countries of the world to form an effective strategy of state migration policy.

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Chapter 6

Transformation of the national system of customs and tariff regulation in conditions of global challenges

6.1 Customs tariff as a regulator of the state's foreign trade policy in the conditions of global challenges

Despite the general trend towards liberalization of foreign trade activity, which is expressed primarily in the countries' reduction in customs tariffs across the entire product mix, customs and tariff regulation remains a key area of foreign trade policy of the states, since it determines the national trade regime and regulates the conditions for foreign products to access domestic markets.

The foreign trade policy regulator and the tool for the objectification of customs and tariff restrictions in the context of liberalization is the customs tariff. The decisive role of the customs tariff in the implementation of the tasks of liberalizing foreign trade both at the national and supranational levels is due to factors such as national authorities, wide range of application, ease of administration and transparency of the duty as a tool for trade restrictions.

The customs tariff, depending on the context and purpose of the study, is understood as [11, 12, 20, 28, 47, 39, 8]:

- special tool of trade policy and state regulation of the domestic market of the country in its interaction with the world market;
- a detailed list of goods subject to import and export duties, indicating the method of calculation, rates of duty, as well as coefficients of allowances and discounts and a list of goods prohibited from being imported or exported in accordance with the commodity list of foreign trade activities;
- specific rate of duty, which is used when importing a particular product or exporting it beyond its borders into the customs territory of the country;
- type of state indirect tax levied on imports and exports of goods, commercial and industrial profits, property, valuables and items

crossing the border at certain points determined by the state under the control of customs services;

– type of customs payment levied on goods and items moved across the customs border of the state.

It is obvious that the range of approaches to the definition of the customs tariff provides for its understanding both in a broad (instrument of trade policy and government regulation) and narrow (specific rate of duty, type of customs payment) sense. Aspects of consideration of the customs tariff represent a certain semantic hierarchy and can be ordered from broad to narrow (Fig. 6.1).

In a broad sense, the interpretation of the customs tariff corresponds to its general understanding as a category of research, that is, one of the generalizing concepts, expresses the essential aspects of specific phenomena and processes. First of all, the customs tariff refers to economic categories that express certain aspects of economic relations and, in aggregate, characterize the economic structure of society as a whole (needs, prices, profits, property, etc.) [66]. Regarding the customs tariff, it as an economic category is the personification of economic relations associated with foreign trade activities of countries.

On the other hand, the political nature of the introduction of duties as a means of economic pressure on the respective states or, conversely, the creation of the most favored regime for political reasons, makes it possible to assign the customs tariff to political categories.

Customs tariff can also be considered as a system category. As an element of the management system of the liberalization of customs and tariff regulation, the customs tariff is a quantitative restriction in foreign trade, which, in the conditions of its liberalization, should be reduced or eliminated. The definition of the customs tariff in accordance with the system approach allows us to develop the concept of the basic, categorical level of its interpretation and treat it as a complex (economic, political and systemic) category of research.

The next after categorical level in the hierarchy of aspects of the interpretation of the customs tariff is its understanding as a means of foreign trade policy. The essence of the customs tariff as an economic category is revealed in the process of implementing the foreign trade policy of the state and determining its attraction to protectionism or free trade. In this sense, the customs tariff is a means of creating tariff barriers by increasing the price of imported goods in the domestic market. Along with tariff barriers, the means of the state's foreign trade policy are also [60]:

- non-tariff barriers as a restriction and/or a ban on imports (quotas, licensing, strict technical and sanitary standards for the quality of goods, voluntary restrictions on the export of certain goods to certain countries);
- export support by providing exporters with tax breaks, subsidies, cheap loans, information and legal assistance, training qualified specialists for foreign trade, assistance in organizing exhibitions abroad, diplomatic support of domestic companies, etc.

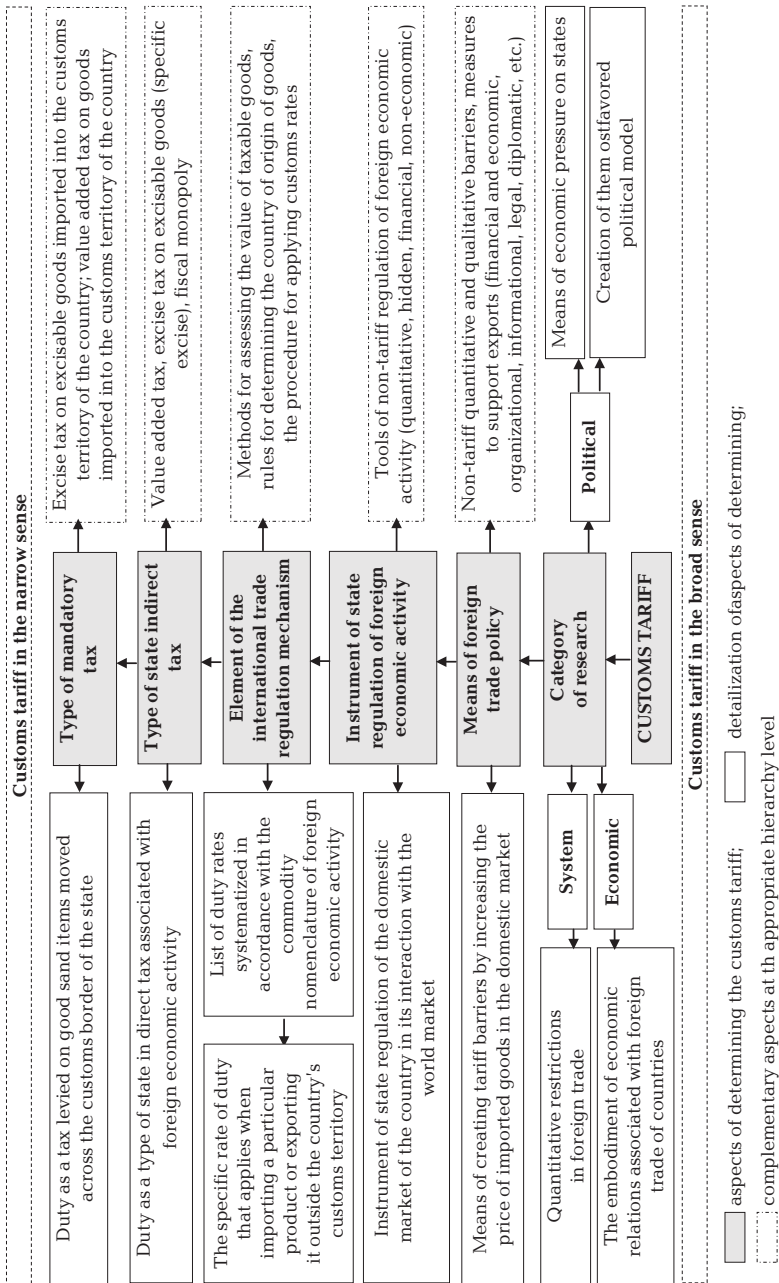


Fig. 6.1 The hierarchy of aspects of the interpretation of the customs tariff (developed by the authors)

Along with other components of economic instruments (indirect taxes in the form of excise tax or value added tax on imports, various types of customs duties), the customs tariff is a tool for state regulation of the domestic market of the country in its interaction with the world market.

As a tool for state regulation of foreign economic activity, the customs tariff regulates the interaction of the domestic market with the world market and is used along with the tools of non-tariff regulation. Instruments of non-tariff regulation are a complex of measures of a restrictive-prohibitive nature that prevent the penetration of foreign goods into the domestic market of the country, and by the nature of their actions are divided into [69]:

- quantitative (quotas, licensing, voluntary restrictions, embargo);
- hidden (government procurement, requirements for the maintenance of components, technical barriers, tax charges, import deposit);
- financial (subsidies, loans, dumping);
- non-economic (trade agreements, legal regimes).

The next level of understanding of the customs tariff is its interpretation as systematized, detailed according to the commodity nomenclature of foreign economic activity, the list of duty rates. In this sense, the customs tariff itself is understood in accordance with the Law of Ukraine «On the Customs Tariff of Ukraine» No. 584-VII dated September 9, 2013, where it is defined as a list of national tax rates — the import duty on goods imported into the customs territory of Ukraine and systematized according to the Ukrainian classification of goods of foreign economic activity (UCGFEA), compiled on the basis of the Harmonized Commodity Description and Coding System [23]. Together with methods for assessing the value of taxable goods, the rules for determining the country of origin of goods, procedures, the application of customs rates, the customs tariff in this sense can be considered as an element of the mechanism for regulating international trade. The rates of duties on specific goods, as components of this list (along with excise tax and value added tax), is a type of customs payment levied on goods and items moved across the customs border of the state.

Also, the duty can be understood as a type of state indirect tax levied on the import and export of goods, commercial and industrial profits, property, valuables and items crossing the border in certain points of the state under the control of customs services [9]. As a type of tax, the customs tariff is interpreted, in particular, in the Customs Code of Ukraine (Section IX, Article 271), where it is stated that the duty is «a national tax established by the Tax Code of Ukraine and this Code, which is charged and paid in accordance with this Code, the laws of Ukraine and international treaties, the consent to which must be granted by the Verkhovna Rada of Ukraine» [33].

Indirect taxes are taxes on goods and services, set as a premium to the price or tariff, paid by buyers when buying goods and receiving services, and are paid to the budget by sellers or less often by producers of

these goods and services [8]. In addition to import (import) duties, indirect taxes include:

- excise tax (specific excise tax), which is established on certain goods (products), defined by law as excisable, and is included in their price [6];
- value added tax, which is subject to the value created on a specific degree of product distribution [62, p. 85];
- fiscal monopoly, which provides for the state to establish a fixed premium to the market price, which provides it with the necessary amount of income, and today (with the exception of certain countries in a very limited form) practically does not apply, including Ukraine [57, p. 43].

In a narrow sense, a duty can be understood as a type of tax levied on goods and items transported across the customs border of a state (together with excise tax on excisable goods imported into the customs territory of the country and value added tax on goods imported into the customs territory of the country).

Thus, in a broad sense, the customs tariff is an economic-political category, and in a narrow sense it coincides with the type of tax levied on goods and objects moved across the customs border of the state. The amount of this tax is determined by the customs tariff in its understanding as a specific duty rate applied when importing a particular product or exporting it outside the country's customs territory, and is determined in accordance with the list of duty rates systematized in accordance with the foreign trade nomenclature. The existing hierarchy of aspects of the interpretation of the customs tariff contributes to the development of the concept of the customs tariff as a complex (economic, political, system) category of research and streamlines aspects of its interpretation on the sequence of acquisition of the defining characteristics of the customs tariff.

The main element of the customs tariff is the duty as an obligatory monetary contribution (tax) that the state collects when the goods cross its customs border. The duty performs a number of important functions in the regulation of foreign economic activity, which include [11, 12, 13, 63, 31, 19, 32, 29]:

- regulatory (regulatory, stabilizing), which consists in supporting a rational structure of exports and imports and the optimal ratio of foreign currency incomes and expenditures of the state, and in conformity concerns export and import duties;
- fiscal, which is associated with the formation of the revenue part of the state budget, and concerns import, export and transit duties;
- protective (protectionist), which is realized through the formation of barriers that prevent the penetration of imported goods into the customs territory of the country, and concerns import duties;
- stimulating (balancing), providing for the creation of prerequisites for an increase in the country's exports and for export duties;

– political (trade and political), which consists in exercising economic influence on other states by creating customs barriers or, on the contrary, granting customs privileges to them, and concerns import duties.

To these functions, the authors can add a control function, which is manifested in the state exercising strict control over the passage of goods across the customs border and is due to the need for clear, balanced work of customs authorities to identify goods, count their quantity and cost for documentary customs clearance [30]. In our opinion, control measures as a prerogative of state bodies are rather a function of customs and tariff regulation than the customs tariff itself, since it is the value of the customs tariff that is the object of monitoring compliance with the correctness of accrual and organizational support for the collection of customs payments.

In our opinion, in modern conditions of liberalization of customs and tariff regulation, it is advisable to more clearly reflect the political and integration aspect of determining the duty rate. In the first case, the level of duty rates can be considered as an indicator of political tensions between trading partners, usually has a bilateral effect and, ultimately, neglects the economic interests of countries in favor of political ambitions. In modern geopolitical conditions, the political component, on the one hand, is an integral part of foreign trade relations between countries and integration formations, and on the other hand, it contradicts the trend towards liberalization of customs and tariff regulation, since it aims at creating artificial barriers in foreign economic activity.

Since the realization of a political function usually has a negative burden and is intended to complicate the foreign trade activities of a particular country, in our opinion, it is expedient to single out such a function of the customs tariff as integration. In contrast to the political, the integration function of the customs tariff is aimed at creating conditions for the effective integration of the country into the world economic space in general and a certain regional integration entity in particular. The key mechanism for its practical implementation is the elimination of customs barriers to the foreign trade activities of partners by reducing or canceling import duties – usually on a bilateral basis. The integration function of the customs tariff, as opposed to the political one, has a positive semantic and instrumental load, and its implementation takes on particular significance in the context of liberalizing customs and tariff regulation.

In addition to the branching of the political and integration functions of the customs tariff, it is advisable to specify its stimulating (balancing) function, which is usually interpreted as creating prerequisites for increasing the country's exports. But, in our opinion, the incentive function of the customs tariff should be considered in two aspects: the promotion of exports by improving the conditions for access of national goods to foreign markets (the incentive component) and the creation of favorable conditions for the activities of domestic producers and progressive changes in the structure of

production and consumption of goods by equalizing competition conditions with imports on the national market (progressive component). After all, stimulating exports and stimulating domestic production is not always the same as a result of reducing import duties: the desired effect may not be to stimulate domestic producers to master a new foreign market, but at least to reduce the share of a certain imported product in the structure of national consumption.

Also, the progressive function of the customs tariff should be manifested in the introduction of mechanisms for different tariff protection depending on the degree of processing of goods, if the imported goods (raw materials, semi-finished products, intermediate products) affect the added value again within the importing country. Optimization of tariff rates of import duties on raw materials and intermediate products to prevent the multiplier effect of the growth of the final cost of the goods. Ultimately, the implementation of the progressive function of the customs tariff should contribute to the development of the industrial complex of the country, the introduction of progressive changes in the structure of national production, support for high-tech innovative industries, the implementation of industrial cooperation agreements, the effective involvement of the country in global value chains.

In accordance with certain functions of the customs tariff, it is possible to set a list of effects that should be provided as a result of the collection of customs duties (Table 6.1):

- state regulation of the balance expenditures through the formation of a rational structure of exports and imports (regulatory effect);
- replenishment of the state budget through the receipt of funds from the collection of duties (fiscal effect);
- protection of domestic producers from foreign competition and leveling the negative effects of changes in market conditions at the global and national levels by creating customs barriers for imported goods (protective effect);
- creation of favorable conditions for the activities of domestic producers and progressive changes in the structure of production and consumption of goods through leveling competition with imports on the national market and the introduction of mechanisms for effective tariff protection (progressive effect);
- improvement of conditions for the access of national goods to foreign markets by creating prerequisites for increasing the country's exports and preventing undesirable exports (stimulating effect);
- creation of conditions conducive to or hindering the foreign trade activities of certain countries on the basis of political considerations (political effect);
- simplification of conditions for access of national goods to foreign markets in order to ensure the effective integration of the country into the world economic space in general and a certain regional integration education in particular (integration effect).

Table 6.1 Functions and effects of charging customs tariff (developed by the author)

Functions of the customs tariff		Essence of the function	The mechanism for implementing the function	The effect of implementing the function
Traditional approach	Author's approach			
Regulatory (regulative, stabilizing)	Regulatory	Regulation of export and import structure	Rationalization of export and import duties	Regulatory
Fiscal	Fiscal	Formation of budget revenues	Import and export duties	Fiscal
Protective (protectionist)	Protective	Protection of domestic producers from foreign competition	Increase import duties	Protective
Stimulating (balancing)	Stimulating	Facilitating the access of national goods to foreign markets	Reduced export duties	Stimulating
	Progressive	Creating favorable conditions for progressive changes in the structure of production and consumption of goods	Rationalization of import duties	Progressive
Political (trade and political)	Restrictive	The exercise of economic pressure on other states	Increase import duties	Political
	Integration	Promotion of the implementation of state integration priorities	Decrease/ elimination of import duties	Integration

The dominant functions of applying the customs tariff are traditionally the replenishment of the state budget and the protection of the national market from foreign competition. Accordingly, the main expected effects of the introduction of imports are fiscal and protective. In the best way to ensure these effects corresponds to the import duty, and low rates contribute to the fiscal effect, and high – protective.

The effectiveness of the implementation of the fiscal function of the customs tariff in Ukraine can be assessed on the basis of the structure of revenues to the State budget during 2004 – 2017 (Table 6.2).

The dynamics of the share of import duties in the general structure of receipts for the corresponding period is presented in Fig. 6.2.

Table 6.2 The structure of revenues to the State Budget of Ukraine during 2004 – 2017 (calculated by the authors according to [68])

Years	Revenues of the state budget, billion UAH										The share of import duties, %		
	Total	Tax revenues						Non-tax revenues	Other revenues	In the total amount of revenues to the state budget	In the amount of tax revenues	In the amount of indirect taxes	
		Total	Including indirect taxes			Import duty	Excise tax						Value added tax
			Total	Value added tax	Excise tax								
2004	67.9	48.6	25.5	14.8	6.7	4.0	17.8	1.5	5.9	8.2	15.7		
2005	103.7	80.3	47.7	33.8	7.9	6.0	22.3	1.2	5.8	7.5	12.6		
2006	131.9	103.9	65.9	50.4	8.5	7.0	26.6	1.4	5.3	6.7	10.6		
2007	161.6	127.8	79.5	59.4	10.5	9.6	30.9	2.8	5.9	7.5	12.1		
2008	224.0	183.7	116.7	92.1	12.7	11.9	37.0	3.3	5.3	6.5	10.2		
2009	217.6	159.6	112.2	84.6	21.3	6.3	55.6	2.3	2.9	3.9	5.6		
2010	233.4	179.5	122.5	86.3	27.6	8.6	52.4	1.9	3.7	4.8	7.0		
2011	311.9	261.6	173.6	130.1	33.0	10.5	49.1	1.2	3.4	4.0	6.0		
2012	344.7	274.7	189.1	138.9	37.2	13.0	68.3	1.7	3.8	4.7	6.9		
2013	337.6	262.8	176.9	128.3	35.3	13.3	72.9	2.0	3.9	5.1	7.5		
2014	355.0	280.2	192.9	136.0	44.5	12.4	68.4	6.4	3.5	4.4	6.4		
2015	531.6	409.4	281.5	178.5	63.1	39.9	120.0	4.2	7.5	9.7	14.2		
2016	612.1	503.9	345.7	235.6	90.1	20.0	103.6	4.6	3.3	4.0	5.8		
2017	828.1	627.1	566.0	434.0	108.2	23.8	128.4	31.7	2.87	3.8	4.2		

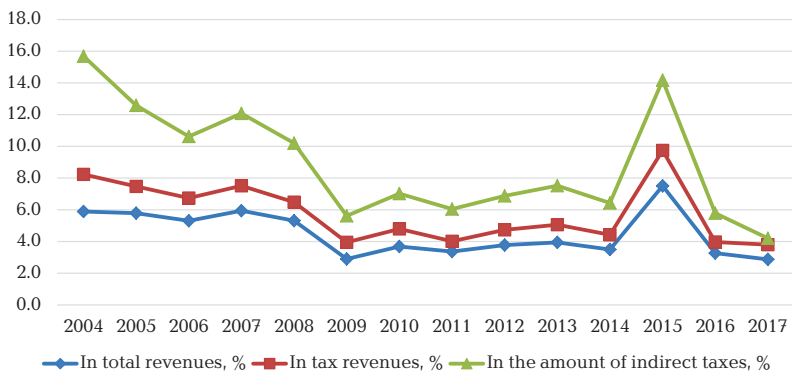


Fig. 6.2 Dynamics of the share of import duties in the structure of revenues to the State Budget of Ukraine during 2004 – 2017.

Source: Compiled by the authors

As can be seen from Fig. 6.2, the fiscal efficiency of customs payments in filling the state budget of Ukraine during 2004 – 2017 reached the minimum value in 2017. Namely, in 2009, the share of customs duties was 4.2 % in the total amount of indirect taxes, 3.8 % in the amount of tax revenues and 2.87 % in the total amount of revenues to the State Budget of Ukraine.

The low level of customs payments is explained by the consequences of the global financial and economic crisis, which affected both the structure and the full amount of the state's foreign trade activities. The maximum share of customs payments in the structure of indirect taxes was in 2004 (15.7 %), and in the structure of tax and general budget revenues – in 2015 (9.7 % and 7.5 %, respectively).

The tangible increase in customs duties in 2015 is mainly due to the introduction of a temporary additional import duty on agricultural products (10 %) and industrial goods (5 %) from February 25, 2015 to January 1, 2016, which was aimed at improving the balance of payments of Ukraine. The effectiveness of the relevant measures in the strategic plan is of doubtful nature, and their introduction contradicts the general trend towards liberalization of customs and tariff regulation. In general, finding the import duty particle in the structure of revenues to the State Budget of Ukraine in the range of 2.87 % (2017) to 7.5 % (2015) indicates that the duty currently does not play a significant role in filling the budget due to indirect taxes. This is due to the development of world trade, the removal of customs barriers, the introduction of preferential customs taxation mechanisms or a duty-free regime in general – in other words, reflects the general trend towards liberalization of customs and tariff regulation and indicates the implementation of the integration function of the customs tariff, which is defined by the author.

The second main function of the customs tariff, from the beginning of the introduction of duties for crossing state borders, is protection of the national market from foreign competition. The implementation of the protective function of the customs tariff in the modern conditions of the liberalization of world trade is subjected to substantial testing. This is especially true for countries with import-dependent and inefficient economies, which unfortunately Ukraine is among. Moreover, in the conditions of liberalization of the customs and tariff regulation, the protective function is increasingly taking on non-tariff restrictions as a method of covertly protecting national markets. Thus, according to UNCTAD estimates, non-tariff measures cover from 18 % to 30 % of world trade and are used by developed countries against 17 % of imports, including up to 50 % of metal products, 25 % of textiles and 44 % of agricultural products [24, p.18]. The low level of efficiency of tariff protection is also evidenced by the dynamics of *the rate of duty collection*, defined as the ratio of the income from imposing import duties and the cost of imported goods, and during 2003–2014. It ranges from 0.3 % (in 2011) to 3.2 % (in 2005) [54].

So, as a result of the liberalization of foreign trade relations, the effectiveness of the implementation of the protective and fiscal functions of the customs tariff gradually decreases, and the role of its integration function increases. It should be additionally noted that the implementation of the protective and fiscal functions have (at least in the short term) the opposite effect to the implementation of the integration function: the fiscal function is directly aimed at replenishing the budget, the protective function provides this effect indirectly through collecting the import duty in such a size that ensures protection of the national market. The implementation of the integration function, on the contrary, provides for a decrease in both budget revenues and the level of protection of national producers. The consolidation of domestic goods in foreign markets and the effective involvement of the state in value chains (as the expected effect of the realization of the integration function) requires time and adequate resource support – especially for developing countries and without appreciable competitive advantages in world markets. Therefore, the justification and finding the sources of ensuring the integration effect of the collection of customs duties is one of the priority scientific and practical tasks in the context of liberalization of customs and tariff regulation.

Since the liberalization of world trade loses the effectiveness of the tariff protection mechanisms of national markets, the proper implementation of the incentive and progressive functions of the customs tariff becomes crucial. Due to the implementation of the incentive function, prerequisites should be created to increase the country's exports and consolidate it in foreign markets, while the progressive function should contribute to progressive changes in the structure of national production and the development of competitive industries. In the case of proper implementation of the

stimulating and progressive functions, a more tangible integration effect can be expected as a result of the country's finding of sources of competitive advantages in the international division of labor and involvement in international industrial cooperation.

So, at this stage of the study it is possible to conclude that in the conditions of liberalization of world trade and customs and tariff regulation, the implementation of the fiscal and protective functions of the customs tariff is hampered and, accordingly, the fiscal and protective effects of customs duties are inevitably reduced. At the same time, the importance of the implementation of the integration function of the customs tariff increases, and the problem of finding the sources of ensuring the integration effect of collecting customs payments is being updated. The basis for obtaining the integration effect is the implementation of the stimulating and progressive functions of the customs tariff, which are aimed at creating conditions for promoting domestic producers to foreign markets (the stimulating effect) and promoting progressive shifts in the structure of national production (progressive effect).

The implementation of the functions of the customs tariff and solving the problems of customs taxation is provided by various (according to the method of collection, the object of taxation, the method of calculation, etc.) fees. Based on the nature of the general functions and tasks of the duty, it can be argued that the collection of each of its types pursues certain priority objectives in accordance with the specifics of accrual and calculation. Priority functions, the implementation of which contributes to the collection of duties, are systematized in Table 6.3.

Thus, the charging of ad valorem (value) duty rates contributes primarily to the implementation of the protective function, since paying the duty as a percentage of the customs value of the goods ensures the same level of protection of the domestic market, regardless of price fluctuations in the goods. Specific duties, which are charged in money per unit of base, contribute to the protection of the national market and national producers only during a period of economic recession and a decrease in import prices; At times, the growth of import prices the protection level of the domestic market with the help of specific rates of duty is reduced, since the charges on the physical unit of the goods do not increase proportionally to the increase in the price of imports.

Combined duties take into account both fluctuations in the world price of goods and the physical volume of imports by charging a percentage of the customs value of a unit of physical measure of the goods, that is, with any changes in market conditions help protect the national producer. In addition to the protective function, the differentiation of duties according to the method of collection should contribute to the implementation of regulatory and progressive functions, since the choice of the method of collecting import duties should meet the objectives of the regulatory policy of the state

and the interests of national producers in the domestic market. Finally, the method of collecting the duty (as, in fact, the differentiation of duty on most other criteria) is chosen in such a way as to ensure receipt of the state budget as part of the implementation of the fiscal function of the customs tariff.

Table 6.3 Priority functions of the customs tariff, the implementation of which contributes to the collection of duties (compiled by the authors)

Classification criterion	Types of duty	Duty functions						
		Regulatory	Fiscal	Protective	Stimulating	Progressive	Restrictive	Integration
By way of collecting	Ad valorem (value)	X	X	X		X		
	Specific	X	X	X		X		
	Combined	X	X	X		X		
By taxation object	Imported	X	X	X		X		X
	Export	X	X		X			
	Transit		X				X	
By the nature of the action	Seasonal	X	X		X			
	Antidumping		X	X		X		
	Compensatory		X	X		X		
By origin	Autonomous		X	X			X	
	Conventional (contractual)		X		X	X		X
	Preferential		X		X	X		X
By type of rates	Permanent		X					
	Variables	X	X	X				
By way of calculation	Nominal		X					
	Effective			X	X	X		

X – priority function, X – important function, X – priority function under certain conditions

Import duties, which are imposed on imported goods when imported into the country, are obviously aimed at protecting domestic producers from foreign competition and stimulating domestic production, that is, they contribute to the protection and progressive functions of the customs tariff. But, in the case of reduction or cancellation within certain integration agreements, the main function of the import duty should be considered integration, while the protective and fiscal functions (at least in the short term) lose their priority: the protection level of the domestic market from imports decreases, budget reduces. Export duties, which are imposed on export goods when they are exported outside the customs territory of the state in case of significant differences between domestic regulated prices and free prices

of the world market, are aimed at reducing exports and replenishing the budget, that is, they are intended primarily for the implementation of regulatory and fiscal functions and, in the case of a reduction in the rate of duty, they ensure the implementation of the incentive function of the customs tariff.

Seasonal duties, which are in effect at a certain time of the year, help regulate the state of the country's balance of payments and ensure the uniformity of funds received in the state budget (regulatory and fiscal functions). Anti-dumping duties are imposed in order to protect the national producer from imports, carried out to the country at the dumping price, that is, they realize primarily a protective function, as well as compensatory duties aimed at protecting national producers of similar goods from imported goods, during the production of which they were directly or indirectly used subsidies. Also, anti-dumping and countervailing duties indirectly contribute to the implementation of the progressive function by creating more favorable conditions for price competition for national producers.

Preferential duties (classification by the criterion of origin) perform primarily an integration function, since they are either fixed in bilateral/multilateral agreements as a practical implementation of the most-favored-nation treatment, or designed to promote the economic development of developing countries. Preferential duties also ensure the implementation of the progressive function of the customs tariff. On the other hand, autonomous duties, which provide for the use of a duty rate on the basis of a unilateral decision in the maximum amount of goods, do not use the most favored nation treatment in this country, have a restrictive nature and indirectly implement a protective function.

Permanent duties, the rates of which are set by state authorities, can't change depending on the circumstances and in the modern system of customs and tariff regulation, they obviously perform a fiscal function. Variable duties, which may be adjusted in certain cases by public authorities (changes in the level of world or domestic prices, state support, competition conditions, etc.), ensure the implementation of the regulatory and protective functions.

Finally, according to the method of calculating, nominal duties perform primarily a fiscal function, while effective duties play a protective, stimulating and progressive role, since they determine the effective level of tariff protection of the domestic market, taking into account the ratio of nominal tariff rates for imported parts and final products. Effective tariff protection provides for a lower nominal rate of tariff for imported parts compared with the rate for finished products, contributes to the domestic production of the final product, rather than its imports.

As can be seen from the Table 6.3, the collection of duties, regardless of the applied classification criterion, is always associated with the implementation of the fiscal function, but in certain cases the replenishment of the state budget is the purpose of applying the customs tariff, and in certain cases the derivative effect of its collection.

Liberalization of customs and tariff regulation as an obvious consequence of the liberalization of world trade in practice is implemented through a system of preferential duties, the collection of which ensures the implementation of the integration function of the customs tariff. But, as already noted, subject to the creation of a favorable customs regime in foreign trade with partner countries (the essence of the integration function), the level of protection of the national market from imports (the essence of the protective function) decreases. Especially tangible negative consequences of the elimination of customs barriers for imports may be for countries with developing economies, in particular for Ukraine. In the context of the liberalization of world trade, the implementation of the customs tariff functions has a balancing character, since it requires consideration of both the national interests of trading partners and all possible economic, political and social consequences in the national environment. Therefore, it is of particular importance to develop mechanisms for the effective protection of the national market from imports in the conditions of liberalization of customs and tariff regulation, that is, in the case when the import duty can no longer fully perform its traditional protective function. The development of such mechanisms requires the identification of priority areas for the liberalization of customs and tariff regulation of Ukraine.

6.2 Liberalization of duty and tariff regulation in the framework of the Association Agreement between Ukraine and the EU

The conclusion of free trade agreements provides for the creation of favorable conditions for the implementation of trade and economic cooperation between individual countries or groups of countries, and therefore is an effective and effective tool to increase the volume of Ukrainian exports for the liberalization of the access of goods and services to foreign markets. The introduction of a free trade regime with promising trade and economic partners allows Ukraine to diversify the geography and nomenclature of national exports in the long term. The introduction of the Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their member states, on the other hand, ratified by the Law, in particular, will help to solve this task No. 1678 (hereinafter the Agreement) [64].

Clarification of issues related to the implementation of the Agreement, certain aspects of the implementation of its economic part, the definition of the consequences for the domestic economy from the implementation of the Agreement, the state of modern economic relations between Ukraine and the EU, is the subject of study of many domestic scientists. Prospects and opportunities for European integration of Ukraine are considered,

in particular, in the works of I. V. Burakovskiy [21], V. A. Filipchuk [67], V. M. Geets [35], V. P. Onyshchenko [41], N. Kaliuzhna [26], and others. It should be noted that the purely practical aspects of the implementation of this process usually remain outside the field of vision of researchers. In particular, very briefly and indirectly, the implementation of the provisions of the Agreement in terms of administering the customs authorities of origin of goods, creating the logistics of the customs authorities necessary to perform the functions of issuing certificates for the transportation of goods EUR.1, the introduction of tariff regulators in the framework of free trade, necessitates further research in this area.

Let's consider certain aspects of the liberalization of customs and tariff regulation under the Agreement in terms of the introduction of tariff regulators and the administration of the origin of goods.

Issues related to the use of tariff regulators are reflected in Section IV «Trade and Trade-Related Issues of the Agreement». In brief, the relevant provisions are as follows: a gradual reduction applied in relation to the base rate of duty, fixed in the Agreement; the impossibility for one of the Parties to increase the current duty or the introduction of new duties on goods comes from the country of the other Party to the Agreement. At the same time, each of the Parties may raise the duty to the level fixed in its obligations, after unilaterally reducing, and also maintain or increase the import duty, if this is permitted by the decision of the WTO Dispute Resolution Body.

Today, the import duty rates are approved by the Law of Ukraine «On the Customs Tariff of Ukraine» dated September 19, 2013, No. 584 [23] with amendments dated October 4, 2016 (further, the Customs Tariff of Ukraine). Specific rates make up 1 % of the total number of rates and are set for alcohol and tobacco, the combined rates for today are not set. Differentiated preferential and full rates in the Customs Tariff of Ukraine – 1357 rates or 13 % of full rates (fish, alcohol, textiles), full rates are applied in case it is impossible to determine the country of origin of goods.

The FTA is based on the agreements reached in the framework of the multilateral negotiation process, as well as the results of bilateral negotiations with the EU on Ukraine's accession to the WTO. Ukraine's accession to the WTO in 2008 [22] led to the liberalization of the Customs Tariff of Ukraine. Detailed information on the current rates of the consolidated Customs Tariff of Ukraine as of September 1, 2017 are given in Table 6.4.

As of September 1, 2017, the arithmetic average rate for the Customs Tariff of Ukraine is 4.9 %, including for agricultural products 1 – 24 of UCGFEA 8.3 % and industrial goods of 25 – 97 of UCGFEA.

Liberalization of the Customs Tariff of Ukraine will be continued under the Agreement. In particular, Ukraine and the EU agreed to create a free trade area (FTA) during the transition period of a maximum of 10 years in accordance with the provisions of Article XXIV of the GATT 1994 [10 p. 303]. According to the agreements, each Party will reduce or abolish the duty on

goods in accordance with established schedules, and for Ukraine the transition period will last up to 10 years, whereas the EU tariff schedule change took place immediately after the Agreement entered into force.

Table 6.4 Import duty (preferential rates) charged on goods imported into the customs territory of Ukraine (compiled on the basis of [22, 23])

Consolidated Customs Tariff of Ukraine									
Duty rates, %	0	0.1–5	5.1–10	10.1–15	15.1–20	20.1–25	More than 25	Specific rates	Total
Number of product subcategories, pcs.	3961	2915	2406	765	296	5	10	105	10463
The share of all commodity subcategories, %	37.86	27.9	23	7.3	2.8	0.05	0.1	1	100
The average rate for tariff corridors, %	–	3.9	8.9	13.2	19.9	25	48	–	–
Maximum level of import duty rate for preferential ad valorem rates: 50 %									
For group names 1–24:			50 % (of which 0.3 % of the commodity subcategories import duty is set above 25 %)						
For group names 25–97:			25 % (only 0.1 % of product subcategories)						
Average rate of customs tariff, %			4.9						

Issues related to the use of tariff regulators are reflected in Section IV «Trade and trade-related issues of the Agreement» [59]. In brief, the relevant provisions are as follows: a gradual reduction applied in relation to the base rate of duty, fixed in the Agreement; neither side can increase the current duty or introduce a new duty on the goods, comes from the country of the other Party to the Agreement; at the same time, each of the Parties may raise the duty to the level fixed in its obligations, after unilaterally reducing, and also maintain or increase the import duty if this is resolved by the WTO Dispute Resolution Authority.

The EU market is significantly higher than the tariff protection, primarily for agro-industrial goods and products (the current arithmetic average rate of import duty in the EU on the Customs tariff is 7.6 %, in Ukraine – 5.0 %, and on products of UCGFEA 01–24 (agriculture) – 19.8 % and 9.2 % respectively. At the same time, the rates of import duty by the EU on individual tariff lines are 1.5–14 times higher than the rates of import duty Ukraine.

Changes in tariff protection of Ukraine and the EU under the Agreement are given in Table 6.5.

Table 6.5 Changes in tariff protection of Ukraine and the EU (based on [59])

The name of the groups on UCGFEA	The arithmetic average rate of import duty, %					
	Active		Since the entry into force of the Agreement (January 1, 2016 p.)		11th year of the Agreement	
	Ukraine	EU	Ukraine	EU	Ukraine	EU
Total Customs Tariff	4.9	7.6	2.4	0.5	0.3	0.05
For goods of groups 1 – 24 of UCGFEA (agriculture)	9.2	19.8	6.7	0.6	1.4	0.2
For goods of groups 25 – 97 of UCGFEA (industrial and processed agricultural products)	3.6	3.9	1.1	0.5	0	0

Ukraine will gradually open its market for goods produced in the EU. Taking into account that in the Customs Tariff of Ukraine, 38 % are zero duty rates, in 2016 the tariff schedule for reducing Ukraine's customs duty rates is 62 % of the customs tariff rates. In particular, compared with other sectors, the largest decrease in import duties occurred in the first year of the Agreement in the food and light industries.

Rates of import duties on goods originating from the EU countries are posted on the website of the Ministry of Economic Development of Trade and Economy of Ukraine [44] and integrated into the software and information complex of the Fiscal Service, used for customs clearance of goods when imported into the customs territory of Ukraine.

For the most sensitive commodity items, it is envisaged either to preserve the import duty, or to introduce such regulators as: tariff quotas at zero rate within the quota and non-zero rate outside the quota; special measures for clothing and other second-hand products. The agreement also provides for the application of tariff quotas for the import into Ukraine of certain types of pork meat, poultry meat and sugar-containing goods according to the principle of «who came first is the first served» («first in – first out»).

Tariff quotas defined in Appendix B of Section IV of the Agreement are administered on the basis of the principle «first come – first served», regardless of the place of import of goods to Ukraine. Legal provisions governing the management of these tariff quotas are contained in Articles 308a, 308b and 308c of EU Regulation No. 2454/93 [43].

In order to ensure the administration of tariff quotas by Order of the Ministry of Finance of Ukraine dated December 11, 2014, No. 1203 approved the Procedure for monitoring the distribution of quotas [37], according to which the distribution of tariff quotas for the application of a zero duty rate is carried out using the Fiscal Service software and information complex the

mode on the basis of the customs declaration submitted by the declarant, which should contain the following information: product code according to UCGFEA; information about the country of origin; tariff preference code.

As of September 1, 2017, the right to use quotas was used by EU importers of poultry meat – by 100 % in the amount of 8.4 thousand tons, pork – 1388 thousand tons or 14 % of the total quota, sugar in the amount of 345 tons, which is 1 % of the quota [15]. Information on current balances of tariff quotas that are managed on the basis of the principle of «first come, first served» is available online.

Let's note that the special conditions of trade that are provided for clothing and other second-hand products (item 6309 of UCGFEA) are defined in Article 29 of the Agreement and Appendix I-B thereto. In particular, Ukraine cancels import duty rates from January 1 of the year following the year of entry into force of this Agreement, and for 5 years will reduce import duties by 1 percentage point annually during the first four years until they are fully abolished in the fifth year.

Along with the annual abolition of import duties, Ukraine will introduce entry prices for used clothing, defined in euros, per kilogram of net weight. The «entry price» will be determined by 30 % of the average for the previous year customs value of all new clothes (24 UCGFEA commodity items) and imported in the specified period in Ukraine. The specific entry price is applied to collect the import duty established by the Agreement during the year.

The calculation of the rate of duty on used clothes during customs clearance will be carried out using the software and information complex automated, based on the input price of the product, which is from January 1, 2017. It is posted on the official web portal of the State Fiscal Service of Ukraine. Let's note that during 2016 this mechanism was not applied, and the rate of import duty on clothes, used, will correspond to the rate of the Customs Tariff.

Let's consider EU tariff concessions to goods of Ukrainian origin.

Today, in parallel with the free trade regime under the Agreement, for two years, the preferential tax treatment of goods of Ukrainian origin within the General System of Preferences, approved by the Commission Regulation of October 25, 2012, will continue to operate for No. 978/2012 [56], which Ukraine has been using for many years when exporting to EU member states. The results of the analysis show that for 547 tariff items of the EU Customs tariff in 2016 it was more profitable to export under the regime of the General System of Preferences, in 2017 there were 424 such positions [45]. At the same time, for export under the free trade regime, it is necessary to obtain a certificate for the transport of goods of form EUR.1, which from January 1, 2016 is issued by the customs authorities of Ukraine, and for export under the General System of Preferences, it is necessary to obtain a certificate of form A, which is issued by the trade and industry Chamber of Ukraine.

The European Commission Regulation under the number 374/2014 [55] introduced unilaterally autonomous tariff preferences for goods originating from Ukraine, which entered into force in 2014, and operated before it entered into force.

In fact, in 2014–2015, the European Union introduced the level of duty rates for goods of Ukrainian origin, established for the first year of the Agreement. So, the available EU duties:

- for industrial goods – 94.7 % of production was canceled; for the remaining several types of goods (some chemical products, etc.) tariffs are reduced;
- for agricultural products – 82.2 % of goods was canceled; for other products (cereals, pork, beef, poultry and a few additional products), partial liberalization is achieved by providing duty-free tariff quotas;
- for food products – 83.4 % of the goods was canceled. The rest are partially liberalized by duty-free tariff quotas.

In addition, Ukrainian exporters received an additional advantage on goods in respect of which the EU offered to establish tariff quotas. In particular, we are talking about pork meat, chicken, sugar and the like. These goods are sensitive to the EU and are usually withdrawn from the liberalization regime when concluding free trade agreements, that is, they fall under the general tax regime for customs clearance. At the same time, as a result of the negotiations, Ukraine was able to import certain volumes of these goods without imposing import duties. In this case, we are not talking about limiting the volume of imports, but only about the fact that imports of these goods over a certain amount fall under the general import regime, that is, they will be taxed according to the same conditions in force for Ukraine today.

These circumstances will contribute to the growth of exports of goods and services (most noticeably, exports of agricultural and food products, in particular confectionery, may increase; noticeably, exports of textile and leather industry, metallurgy and metal processing, chemical production, transport services and services to legal entities). In 2015, exports from Ukraine to the EU countries amounted to 10.3 billion USD [42], which accounts for 30 % of Ukraine's total exports of goods, of which agricultural exports of groups 1 – 24 of UCGFEA amounted to \$ 4 billion, or 39 %, industrial goods 6.3 billion dollars, or 61 %.

Analyzing the impact of the implementation of these provisions of the Agreement, let's note that for Ukrainian producers it will be essential to reduce tariff restrictions from the EU in such areas as: light industry, chemical industry, mechanical engineering, food industry.

It is clear that it is possible to take advantage of tariff preferences in the EU, stipulated by the Agreement, only if there are relevant documents confirming the Ukrainian origin of the goods. Therefore, an important element in supporting the export of goods from Ukraine to the EU countries should

be the introduction of an effective mechanism for issuing SFS certificates for the carriage of the EUR.1 form.

The customs authorities of the EU and Ukraine are entrusted with the functions of issuing certificates for the transport of form EUR.1, Article 17 of Protocol 1 «On the definition of the concept of» Origin of Goods «and methods of administrative cooperation» to the Agreement [52]. In order to regulate this issue, an order of the Ministry of Finance of Ukraine dated November 18, 2014 No. 1142 was issued «On approval of the procedure for filling and issuing a certificate for the carriage of goods EUR.1 by customs in accordance with the Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their member states, on the other hand»[38].

To obtain a certificate, the exporter must submit to customs the following documents (Fig. 6.3):

- a statement containing the exporter's declaration for issuing a certificate in the form specified by the Agreement;
- filled out in accordance with the requirements of the Agreement, the certificate form (original certificate, two paper copies of the certificate and its electronic copy in case of filling the certificate with typing)
- documents confirming the preferential origin of goods in accordance with the requirements of Protocol 1 to the Agreement, if this is the first delivery of such goods to EU countries.

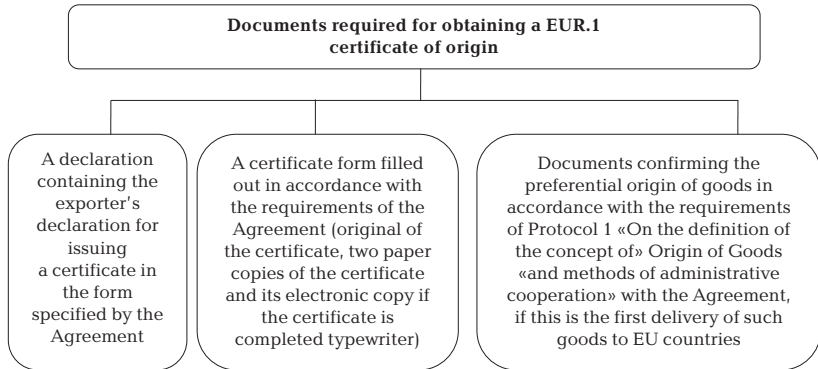


Fig. 6.3 Documents required for obtaining a EUR.1 certificate.

Source: Compiled by the authors

In order to simplify the procedure for obtaining certificates by domestic exporters, a number of organizational and information events have been introduced. In particular, in order to simplify the mechanism for issuing certificates, a software-information complex «Register of Issued Certificates of EUR.1 Form» has been developed. The register contains in electronic

form certificates issued by SFS customs, which will simplify the procedure for verifying certificates at the request of customs administrations of EU countries in accordance with the requirements of Article 33 of Protocol 1 «On the definition of the concept of» Origin of Goods «and methods of administrative cooperation» to the Agreement [52].

Organizational measures were also taken to simplify the procedure for issuing certificates, including the places where certificates were issued – 162 customs posts and departments (sectors) of customs clearance that are as close as possible to potential exporters/manufacturers; 433 customs officials have been authorized to issue certificates [20]. Starting from January 1, 2016 as September 1, 2017, SFS customs issued 87151 certificates to EU countries [16] (Fig. 6.4).

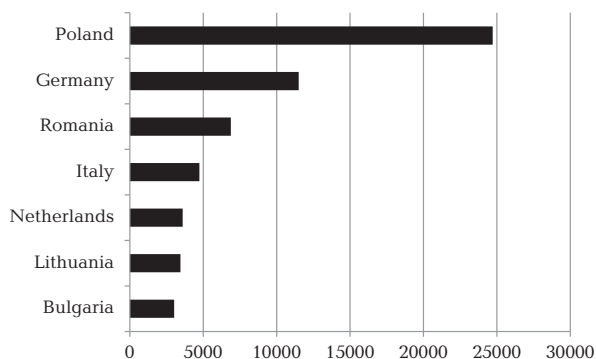


Fig. 6.4 Countries of destination for transportation certificates EUR.1.

Source: Compiled by the authors based on the data [16]

In particular, the largest number of certificates issued to Poland – 24,714 pcs., or 28 % of the total number of certificates issued, Germany – 11,503 pcs., or 13 %, Romania – 6,880 pcs., or 8 %, Italy – 4,737 pcs., or 5 %, the Netherlands – 3,600 pcs., or 4 %, Lithuania – 3,449 pcs., or 4 %, Bulgaria – 3,022 pcs., or 3 % [16].

The next weighty step to simplify and speed up customs clearance for exported from Ukraine under free trade conditions is the introduction in 2015 of the institute of an authorized (approved) exporter in determining the preferential origin of goods, the mechanism of which is given in Article 23 of Protocol 1 «On the definition of the concept of «origin of goods» and Administrative Cooperation Methods to the Agreement [52]. Such a mechanism in Ukraine until today did not exist.

In order to obtain tariff preferences in EU countries, a Ukrainian exporter of goods has the opportunity to independently determine and declare the origin of goods on commercial documents without customs

involvement without issuing a EUR.1 certificate. The validity of the status of authorized (approved) exporter is not limited in time.

In order to ensure the implementation of such an effective mechanism of the Agreement by the order of the Ministry of Finance of Ukraine No. 1013 [36], which entered into force on December 24, 2014, the Procedure for granting and canceling the status of an authorized (approved) exporter by customs was approved. To implement this Procedure, a program-information complex «Register of Approved Exporters» has been developed and implemented, with the help of which the authorization number of an authorized (approved) exporter is formed, which is noted in commercial documents and is the basis for applying tariff preferences to goods of Ukrainian origin in EU countries. As of September 1, 2017, 140 enterprises received the status of authorized (approved) exporters, exporting honey, ketchups and sauces, sunflower oil, baker's yeast, cookies, glass products, furniture and the like from Ukraine to the EU countries.

Separately, it is necessary to dwell on the need to implement measures to inform domestic exporters about the peculiarities of customs and tariff regulation under the Agreement. The relevant activities are carried out, in particular, by the Department of International Trade and Economic Cooperation and European Integration of the Ministry of Economic Development and Trade of Ukraine as part of a project on the functioning of free trade between Ukraine and the EU [3]. Among the key questions to which domestic exporters demand an answer in the context of liberalization of the tariff regime with the EU, let's highlight the following:

1. Conditions and locations for obtaining the EUR.1 certificate as a necessary basis for applying trade preferences to Ukrainian goods. Information on the location of customs units, which from January 1, 2016 issue certificates of origin free of charge, can be obtained on the official web portal of the State Fiscal Service [34].

2. Structure and dynamics of the liberalization of the tariff regime of the parties to the Agreement. The structure of tariff liberalization is determined by the base rate (the rate of import duty from which the reduction/cancellation begins) and the transition period (the number of years during which the import duty rate will decrease/cancel). The dynamics of tariff mode liberalization provides for the determination of the time period during which the import duty rates for a certain product group are reduced/canceled.

3. The current rate of import duties on export products under the Agreement. The current level of import duty rates Ukraine applied to the import of goods originating from the EU in the framework of free trade between Ukraine and the EU, posted on the website of the Ministry of Economic Development. In particular, the import duty rates in 2017 are located by reference [58]. Information on current EU import duty rates for products originating from Ukraine can be obtained online on the European Commission's Internet resource Export Helpdesk in the «My export» section [2].

4. Tariff quotas for goods under the Agreement.

The establishment of EU duty-free tariff quotas is provided for 36 types of goods (beef, pork, lamb, poultry, milk, cream, yoghurts, grains, bran, honey, sugar, starch, mushrooms, garlic, malt, grape and apple juices, butter, cigarettes, ethanol, eggs and albumin, others). Moreover, 4 types of installed additional volumes. In turn, Ukraine set tariff quotas for 3 types of goods (pork meat; poultry meat and poultry meat semi-finished products and sugar) and provided for additional volumes for 2.

The summary list of tariff quotas is set out in the addendum to the Association Agreement. The text of the supplement can be found on the website of the Cabinet of Ministers of Ukraine by reference [18]. The lists of tariff quotas for Ukraine and the EU, as well as import duty rates within quotas and outside the quotas, are posted on the website of the Ministry of Economic Development in the section «Cooperation between Ukraine and the European Union» Free Trade Area between Ukraine and the EU» [46].

5. The presence of unused balance within the tariff quota.

Information on current balances of tariff quotas, which is updated daily, is available online on the official portal of the European Commission on the link [5] and on the website of the State Fiscal Service of Ukraine on the link [61].

Analysis of various aspects of the liberalization of customs and tariff regulation under the Agreement in terms of administration of the origin of goods and tariff regulators allows to systematize the relevant provisions and measures (Fig. 6.5). Summing up, let's note that the Customs Tariff of Ukraine has been liberalized today, taking into account Ukraine's obligations under the WTO, and this process will continue under the Association Agreement between Ukraine and the EU, while the EU market is significantly higher than the tariff protection, primarily in the agricultural goods and products. At the same time, the rates of import duty by the EU on individual tariff lines are 1.5–14 times higher than the rates of import duty of Ukraine). The largest reduction in import duties occurred in the first year of the Agreement in the food and light industries.

Analyzing the impact of the implementation of the provisions of the Agreement in terms of the liberalization of customs and tariff regulation, let's note that for Ukrainian producers it will be essential to reduce tariff restrictions from the EU in such areas as: light industry, chemical industry, mechanical engineering, food industry.

Ukraine ensures the implementation of the provisions of the Agreement in terms of administration of the origin of goods and tariff regulators, in particular, the implementation of the regulatory framework and software and information systems was ensured, the places of issuance of certificates were determined that were as close as possible to potential exporters/manufacturers; determination of the origin of goods, which ensures the use of a simplified instrument for confirming the Ukrainian origin with the supply of goods in to the EU countries.

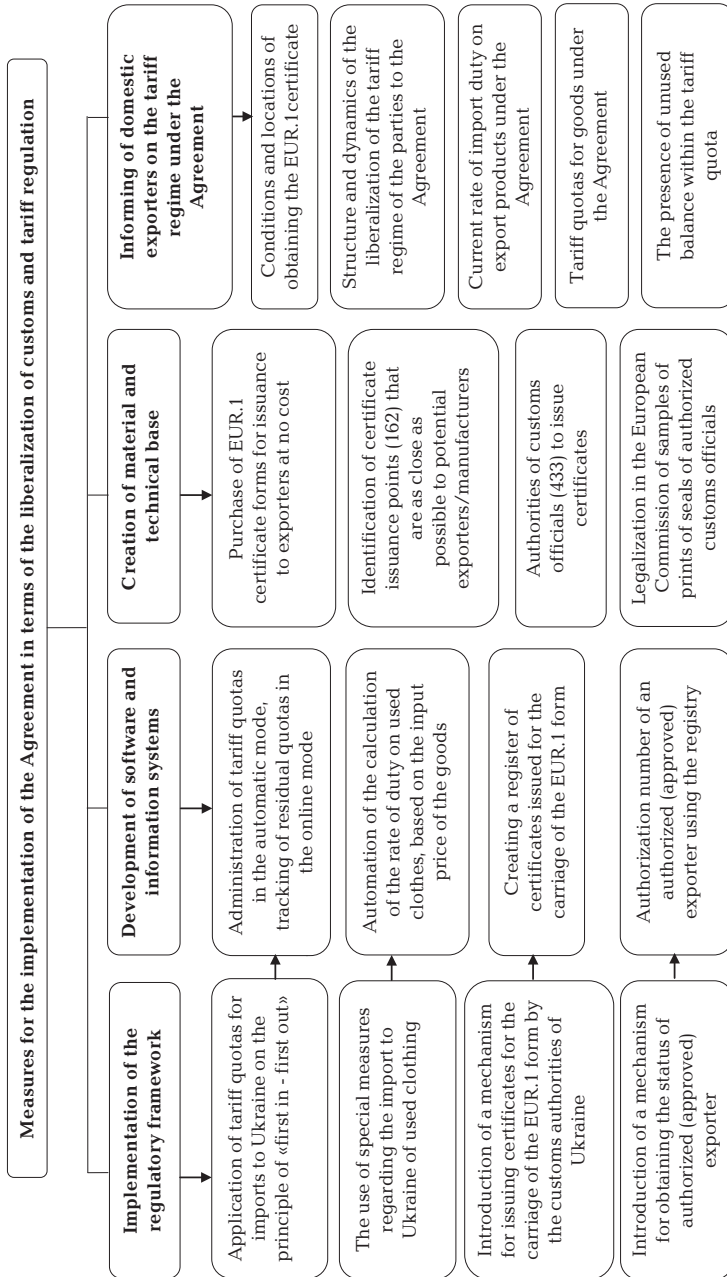


Fig. 6.5 Measures for the implementation of the Association Agreement with the EU in terms of liberalization of customs and tariff regulation.

Source: Compiled by the authors

However, to date, the issue of creating a subcommittee on customs cooperation, as provided for in Article 83 of the Agreement, remains unresolved. The creation of such a Subcommittee will allow to quickly resolve issues of information exchange between the customs administrations of Ukraine and the EU on samples of prints of seals of customs officials authorized to certify certificates for transport of the EUR.1 form, a list of exporters who are authorized (approved) in Ukraine and the EU, to establish close cooperation on verification (verification of authenticity) of documents on origin in accordance with the requirements of Articles 32, 33 of Protocol 1 to the Agreement, as well as on resolving disputes on the interpretation of origin rules during inspections.

The gradual implementation of the provisions of the Agreement in terms of administration of the origin of goods and tariff regulators will further liberalize the customs and tariff regulation of Ukraine and create the prerequisites for the successful implementation of the European integration vector of Ukraine's development. At the same time, additional impetus to the integration of Ukraine into the European space can be created subject to the full use of the potential of both the Association Agreement with the EU and other preferential agreements with the participation of Ukraine. The solution to this problem requires the study of the conditions for the application of preferential rules of origin of goods with a view to further liberalizing customs and tariff regulation of Ukraine.

6.3 Use of preferential rules of origin as a factor of liberalization of the national system of customs and tariff regulation

The reduction and elimination of customs and tariff barriers is an integral element of the comprehensive preferential agreements concluded between countries and integration entities. However, even the complete elimination of tariff barriers in the framework of free trade areas (FTA) does not always mean unhindered access to the market of the foreign trade partner, and may lead to the creation of additional barriers to imports from third countries. In modern conditions of formal liberalization of customs and tariff regulation, traditionally implemented in the form of reducing the rates of import duties, the tool for creating artificial restrictions (or, conversely, favorable conditions for import) becomes the use of the rules of origin of goods (ROG).

The format and structure of the rules for determining the country of origin of goods have a significant impact on trade flows – the more restrictive the rules of origin, the greater the protective effect of foreign trade and the more arbitrary and selective its liberalization can be considered. Complicated and diverse international practice of applying rules of origin can have a negative impact on trade, complicating foreign trade procedures

and increasing the costs of subjects of foreign economic activity. Particularly, the ROG value increases and their influence on foreign trade increases as the requirements for the production process and the extension of value chains become more complex. Producers and exporters of goods from other countries are forced to comply with different schemes of rules of origin of goods with different criteria of origin, differ from each other.

The relevance of the study of the nature and conditions of the ROG use is due to the role that the mechanisms of origin of goods play in harmonizing the system of international and regional trade cumulation. Among Ukrainian researchers, the theoretical and methodological aspects of using the rules of origin are considered in the works of educational and methodical [12, 27] and scientific [7, 40, 48] nature. In particular, in the work of S. Berenda [7] investigated the theoretical foundations of the use of PPT as a tool for chain formation of trade cumulation between member countries of a preferential agreement, identified features, opportunities and threats in building value chains that are created on the basis of the international trade cumulation system. V. Poedynok, exploring the economic and legal aspects of the ROG use, fundamentally notes that the rules for determining the country of origin are «an instrument of influence on the economic interests of subjects of foreign economic activity, which can acquire the character of both an incentive and a barrier to foreign trade» [48, p. 123]. In spite of the obvious advantages that the use of preferential ROGs creates for the integration of Ukraine in the global value chain, it is expedient to intensify research on the prerequisites for their use as a tool of foreign trade policy of the state.

In order to determine the possibility of using the ROG as a tool for liberalizing the customs and tariff regulation of Ukraine, it is necessary first of all to consider the types of rules of origin existing in international practice and the approaches used to assess their impact on foreign trade flows.

There are two types of rules for determining the country of origin of goods – preferential and non-preferential. Non-preferential rules are used primarily to determine the goods to which the most-favored-nation treatment should apply (all WTO member countries), and subsequently to separate domestic imported goods to which other instruments of the state's trade policy can be applied. The Agreement on the Rules for Determining the Non-preferential Origin of Goods of the WTO [65] defines the goals of the origin of goods, in particular, this Agreement is applied when using non-preferential instruments of trade policy, in particular when applying:

- most-favored regime in accordance with Articles I, II, III, XI and XIII of GATT 1994;
- anti-dumping and countervailing duties under Article VI of GATT 1994;
- protective measures under Article XIX of GATT 1994;
- labeling requirements for origin under Article IX of GATT 1994;
- any discriminatory quantitative restrictions or tariff quotas;
- in government procurement and in trade statistics.

Equivalent of origin is also used to determine the origin in the context of «marking of origin» (i.e. labeling «produced in») of goods [53]. In Art. 36 of the Customs Code of Ukraine [33] indicated that the purpose of determining the country of origin of goods is:

- taxation of goods transported across the customs border of Ukraine;
- application to the goods of non-tariff regulation of foreign trade activities, prohibitions and/or restrictions on movement across the customs border of Ukraine;
- ensuring the accounting of these goods in foreign trade statistics.

According to the author's classification of customs tariff functions, it can be concluded that the use of non-preferential origins contributes primarily to the implementation of such functions as:

- protective – protection of national producers by creating additional barriers to products that the country considers sensitive for its industry;
- fiscal – an increase in the revenue part of the budget due to the lack of preferences in the taxation of imported goods;
- regulatory – regulation of the structure of exports and imports by marking the country of origin and statistical accounting of goods.

It should be noted that in Art. 2 of the Agreement on the Rules of Definition of Origin, it is separately noted that the rules of origin themselves should not have a restrictive, distorting or destructive effect on international trade. They should not impose unreasonably stringent requirements or require the fulfillment of a certain condition not related to production or processing as a basis for determining the country of origin [65]. On the other hand, the status of non-preferential origin does not provide goods with any additional advantages in foreign trade, but only regulates their «economic nationality» (see Art. 36 of the Customs Code) – the country in which the goods were «fully received» or the country of the last significant processing/treatment (in case two or more countries are involved in the production of the product).

The Customs Code (CC) of Ukraine 2012 defines both groups of goods that receive the status of fully produced in a given country (Article 38 of the CC, see Appendix B), and the criteria for processing non-preferential origin of goods (Article 40 of the CC), which include:

- criterion for changing the tariff classification – defines, as the country of origin, the one in which the production or technological operations took place, the results of which change the classification code of the goods according to UCGFEA at the level of any of the first four characters;
- ad valorem percentage criterion (changes in the value of goods as a result of processing goods) – determines, as the country of origin, the one in which the value of goods changes as a result of processing, when the percentage share of the cost of used materials or the value added reaches a fixed share in the value of the final goods.

Criterion of operations for production or processing – determines how the country of origin is the one in which production and/or technological operations took place as a result of processing the goods do not lead to a change in its UCGFEA classification code or cost according to the ad valorem share rule, but certain conditions are considered sufficient for the recognition of goods originating from the country where such operations took place. The said principle of determining the country of origin of goods corresponds to the Uruguay Round of the General Agreement on Tariffs and Trade [10] and is applied by the countries participating in the said Agreement.

To implement the Customs Code, the Resolution of the Cabinet of Ministers of Ukraine of December 20, 2006 No. 1765 «On the procedure for establishing and applying the ad valorem share rule and performing production and technological operations» [50] has been issued, which defines:

- procedure for applying the criterion for changing the classification code and the ad valorem share rule in combination with other criteria for sufficient processing of goods;
- differentiation of criteria for sufficient processing of goods of preferential and non-preferential origin;
- list of manufacturing and technological operations that are considered sufficient to recognize a product as originating from the country where such operations took place.

The basis of the List of production and technological operations is assigned to Annexes 10 and 11 to Section IV of the Commission Regulations (EEC) of July 2, 1993. (no valid from May 1, 2016) [43].

The list of documents confirming the country of non-preferential origin of the goods and the conditions for granting non-preferential status when importing goods into the customs territory of Ukraine are defined respectively in Art. 43 and Art. 44 of SS. A feature of the use of non-preferential rules of origin is the use of preferential rates of the Customs Tariff of Ukraine to the countries to which Ukraine is granted the most favored treatment. Preferential rates are applied to WTO countries (164 countries as of December 1, 2017, as well as to countries such as Algeria, Azerbaijan, Afghanistan, Belarus, Bosnia and Herzegovina, Lebanon, Libya, San Marino, Syria, Serbia, Iran, Tajikistan, Turkmenistan, Uzbekistan. Full duty rates are applied to goods of unknown origin, as well as to goods originating from countries with which Ukraine has not entered into regional agreements on granting the most-favored-nation regime (in particular, Bhutan, Vanuatu, Equatorial Guinea, Eritrea, Ethiopia, Zaire, Western Sahara, Western Samoa, Iraq, Yemen, Kiribati, Comoros, Laos, Liberia, Midway Islands, Micronesia, Nauru, Wake Island, Sao Tome and Principe, Seychelles, Somalia, Sudan, East Timor, Tuvalu, Faroe Islands, Falkland Islands).

The main characteristics and features of using the rules of non-preferential origins in Ukraine are systematized in Table 6.6.

Table 6.6 The essence and features of the use of the rules of non-preferential origin in Ukraine (developed by the authors)

«Economic nationality» of the goods/advantages of the customs regime	Priority functions of the customs tariff*			The mechanism for determining the country of origin		Documents confirming the origin of goods	Application features
				The number of countries involved in production	The number of countries of origin		
	Protective	Fiscal	Regulatory	1	2 or more		
Yes/No	Protection of national producers by creating additional barriers for products that the country considers sensitive for its industry	Increase of the budget revenue due to the absence of preferences in the taxation of imported goods	Regulating the structure of exports and imports by marking the country of origin and statistical accounting of goods	The concept of «full receipt» (product, fully produced in this country)	Origin of the country of last significant treatment/processing in accordance with the processing criteria	Certification of Origin. Declaration of Origin. Certified Declaration of Origin. Regional certificate of product name	Full duty rates
				Criterion for changing the tariff classification	Ad valorem percentage criterion for the production or processing		

* The priority functions of the customs tariff are determined according to the author's classification (Table 6.1)

In contrast to non-preferential origins, the status of preferential origin of goods not only determines the «economic nationality», but also provides certain advantages to goods that are the subject of trade between the countries-subjects of a corresponding preferential agreement. Usually, such benefits are meant to reduce or eliminate import duty rates. Accordingly, it can be considered that one of the priority functions of the customs tariff when using preferential origin is the integration function, which provides for facilitating the implementation of the integration priorities of the state by reducing/eliminating import duties. And taking into account the important role played by the preferential status of goods in ensuring the effective functioning of value chains, it is possible to assume that the second priority function of the customs tariff in this case is progressive. According to the author's classification, the implementation of the progressive function of the customs tariff ensures the creation of favorable conditions for progressive changes in the structure of production and consumption of goods by rationalizing import duties.

Preferential rules of origin are prescribed in free trade agreements, which create certain conditions to control possible deviations in trade flows and prevent the possibility of goods from countries not falling under preferences, at lower tariffs through the territory of partner countries in the free trade zone. Preferential rules of origin are an integral feature of almost all regional trade agreements. According to experts, if current trends continue, in a few years more than 70 % of international trade will be regulated under preferential trade agreements.

In particular, in Ukraine, goods originating from such countries are reduced/exempt from paying a duty (Table 6.7):

- CIS countries (Azerbaijan, Kazakhstan, Belarus, Kyrgyzstan, Armenia, Moldova, Turkmenistan, Tajikistan, Uzbekistan; Russian Federation – suspended from January 6, 2017);
- GUAM countries (Georgia, Ukraine, Armenia, Moldova);
- EU countries from 01/01/2016 (29 countries);
- EFTA countries (Switzerland, Norway, Iceland, Liechtenstein);
- Macedonia;
- Georgia;
- Montenegro;
- Canada (since August 1, 2017).

Features of the use of the rules of preferential origin in Ukraine are systematized in Table 6.8.

The status of preferential origin is granted to goods from individual countries in the framework of preferential agreements and arrangements in the event that the goods meet certain criteria. Criteria of preferential origin generally require that goods be subjected to more extensive processing or processing than is required to obtain non-preferential origins [53]. At the same time, fully received goods can also benefit from the status of preferential origin.

Table 6.7 Preferential agreements between Ukraine and its main foreign trade partners (compiled by the authors)

Partners	Preferential agreements
Georgia	Agreement on the creation of a free trade zone of 04.15.1994 p. Agreement between the Government of Ukraine and the Government of the Republic of Georgia on free trade from January 9, 1995. The rules for determining the country of origin of goods from 30.11.2000 g. (Ratified by the Law of Ukraine dated September 20, 2001, No. 2735-III)
Uzbekistan	Protocol on the application of the Treaty on the Free Trade Zone of October 18, 2011 between the Parties and the Republic of Uzbekistan of May 31, 2013. Rules for determining the country of origin of goods from September 24, 1993
EFTA countries	Free Trade Agreement between Ukraine and EFTA States. Agreement on Agriculture between Ukraine and the Kingdom of Norway. Agreement on agriculture between Ukraine and Iceland. Agreement on Agriculture between Ukraine and the Swiss Confederation. The agreements were signed on June 24, 2010, ratified by the Law of Ukraine on December 7, 2011, No. 4091-VI; entered into force on June 1, 2012
EU countries	Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their member states, on the other hand, dated June 27, 2014 (effective from January 1, 2016). Protocol 1 to the Agreement (rules of origin)
Canada	Free Trade Agreement between Ukraine and Canada dated June 11, 2016, ratified by the Law of Ukraine dated March 14, 2017 No. 1917-VIII «On Ratification of the Free Trade Agreement between Ukraine and Canada». Chapter 3 «Rules and Procedures of Origin»
CIS countries (except RF)	Free Trade Zone Agreement of October 18, 2011. Agreement on the Rules for Determining the Country of Origin of Goods in the Commonwealth of Independent States of November 20, 2009

In the preferential rules of origin, three main criteria are used – fully produced goods (wholly obtained), criteria of sufficient transformation (substantial transformation) and cumulation. Separate attention should be paid to the criterion of sufficient processing, which, firstly, consists of two components (a change in tariff classification and a cost component), and secondly, it can include variations or combinations of them (for example, the rule of changing commodity position along with the price rule).

Table 6.8 The essence and features of the use of the rules of preferential origin in Ukraine (developed by the authors)

The essence and features of the use of the rules of preferential origin in Ukraine (developed by the authors)	The essence and features of the use of the rules of preferential origin in Ukraine (developed by the authors)		The mechanism for determining the country of origin		Countries, goods of origin from which acquire preferential origin in Ukraine	
	Integration	Progressive	The number of countries involved in production			
			1	2 or more		
Yes/No	Promoting the implementation of the integration import duties	Creating favorable conditions for progressive changes in the structure of production and consumption of goods due to rationalization of import duties	The concept of «full receipt» (product, fully produced in this country)	Origin of the country of last significant processing/processing in accordance with the processing criteria	Cumulation	– CIS countries (Azerbaijan, Kazakhstan, Belarus, Kyrgyzstan, Armenia, Moldova, Turkmenistan, Tajikistan, Uzbekistan; Russian Federation – suspended from January 6, 2017); – GUAM countries (Georgia, Ukraine, Armenia, Moldova); – EU countries from January 1, 2016 (29 countries); – EFTA countries (Switzerland, Norway, Iceland, Liechtenstein); – Macedonia; – Georgia; – Montenegro; – Canada (since August 1, 2017)
				Criterion for changing the tariff classification		
	Change in product nomenclature (the first 2 characters of HS)	The maximum allowable level of the cost of materials of foreign origin in the ex-factory price of goods	Sub-position change (first 6 characters of HS)	The maximum allowable level of the cost of materials of foreign origin in the ex-factory price of goods	FTA Agreement component	The prospect of attraction to Pan-Euro-Mediterranean

* The priority functions of the customs tariff are determined according to the author's classification (Table 6.1).

The first component, which is a criterion for sufficient processing, is a change in the tariff classification of the final product in comparison with materials originating from third countries used in its production process. According to the criterion for changing the tariff classification, there can be a change in the commodity nomenclature of the commodity item and subposition, which are equivalent to a change at the level of the first 2, 4 and 6 characters of the Harmonized Commodity Description and Coding System, respectively [51].

Under the criterion of the cost component is the content of the cost, which is the maximum allowable level of the cost of materials of foreign origin in the final cost of the goods. The cost component can be understood as the minimum percentage of the cost that must be added in the exporting country, or as the difference between the cost of the final product and the cost of used imported components. In the latter case, the origin is determined by the minimum cost of local components in the total cost.

In all agreements on free trade concluded by Ukraine with the EU, EFTA, CIS, Macedonia, Georgia, Montenegro, the final cost of goods is the price of ex-factory products. The term «price-ex factory» (from Italian Franco – free), which is given in the rules of Incoterms [25], means that the seller is considered to have fulfilled his delivery obligations when it places the goods at the buyer's disposal in its company or in another named place (for example: in a factory, factory, warehouse, etc.).

The seller is not responsible for loading the goods on the vehicle, as well as for customs clearance of goods for export. The rules of origin give a definition of the term «franco-factory price», which means the price paid for a product on franco-factory conditions to a manufacturer in Ukraine, where the last processing or processing was carried out, provided that this price includes the cost of all the materials used, deducting any internal taxes that should or may be refunded when exporting the product being produced [65]. The percentage of imported materials, the use of which does not affect the definition of the country of origin, is governed by the «de minimis» rule. The main criteria for determining the content of imported components in various systems of rules of origin are presented in Table 6.9.

Table 6.9 Criteria for determining the content of imported components in different systems of rules of origin (compiled by the authors)

Criterion	Systems of the rules of origin				
	ASEAN	NAFTA	EFTA	EU	CIS
Cost component	Free price	transaction value	Franco-factory price	Franco-factory price	Franco-factory price
«De minimis» rule	10 % franco onboard with certain exceptions	7 % of the transaction cost	10 % of franco-factory price	10 % of franco-factory price, exclusion of light industry goods	5 % of franco-factory price

The cumulation criterion in preferential rules of origin provides that goods that have acquired preferential origin status in one of the partner countries can be used together with goods originating from another partner country, without prejudice to the preferential status of the final product.

Depending on the number of trading partners and the structure of trade relations between them, the following types of cumulation are distinguished [53]:

- bilateral cumulation, which is applied between two partners and means that the goods produced in one country can be used in the production process in another country as well if they had the origin of another country;
- diagonal cumulation, which is applied between more than two countries, provided that all countries have bilateral preferential agreements with identical rules of origin.

Compliance with the bilateral cumulation criterion is obvious part of the agreement on the creation of free trade zones, which are concluded by Ukraine with foreign trade partners, whereas the possibility of applying the diagonal cumulation criterion for this can be considered as the desired result of Ukraine's accession to the Regional Convention on Pan-Euro-Mediterranean Rules which is ensuring a qualitatively new level of trade between the countries of the Mediterranean region.

Despite the comparative complexity of the Pan-Euro-Mediterranean system, joining the Regional Convention on Pan-Euro-Mediterranean preferential rules of origin creates real prospects for the development of foreign trade for Ukraine. The rapid development of global value chains requires going beyond traditional bilateral preferential agreements. The implementation of regional strategic partnership mechanisms is impossible without involving different countries of the same region in the value creation processes, which means, first, the need to unify the rules of origin of goods (at least at the regional level), and second, to avoid the bilateral cumulation rule, which significantly limits international trade. For Ukraine, these tasks are possible under the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin (hereinafter referred to as the «Convention»). The Convention provides for the possibility of diagonal cumulation, that is, the possibility of using the raw materials of each other countries, and not just national. In particular, diagonal cumulation allows the use in the production of goods raw materials from third countries that are not parties to a preferential transaction (free trade zone) within which trade takes place. For example, according to the Convention, clothing, sewn in Ukraine from the fabric of Turkish production, will be able to import into the EU at a zero rate of import duty. At this stage, the Association Agreement between Ukraine and the EU regulates that textile materials from third countries can be used in the production process of goods of preferential origin only if their value does not exceed 8 % of the cost of clothing.

Thus, the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin ensures the use of identical rules of origin of goods within the framework of free trade agreements by member countries and provides

for the possibility of diagonal cumulation. This creates an opportunity for the use of goods that have received the status of preferential origin in one of the countries, in other countries, without losing their corresponding status. The Pan-Euro-Mediterranean protocol on identical rules of origin is attached to each bilateral free trade agreement between the member states of the Convention. The unification of rules of origin allows the countries parties to the Convention to strengthen economic integration and has a positive effect on the volume of export-import operations due to the presence of preferential duties.

In the context of Ukraine's European integration, the accession to the Pan-Euro-Med Convention will be of strategic importance, since it will help simplify the terms of trade and make better use of the state's export potential. At the end of 2016, the export of Ukraine to the countries parties to the Convention is 53 % of the total export of our country. Of these, more than 40 % went to EU countries, 4.2 % went to Turkey, and 3.1 % went to Egypt [49]. For 6 months of 2017, the share of Ukrainian exports to the Pan-Euro-Mediterranean countries is already more than 50 %, of which 40 % is to the EU countries [49].

Participation in the Convention makes it possible to use in the production of goods the raw materials that make up the components originating from countries that are Parties to the Convention and export them as products of their own production. As of 01.01.2018, 6 parties to the Convention have the Free Trade Agreement with Ukraine – EU, EFTA, Montenegro, Macedonia, Moldova, Georgia. Negotiations on free trade, namely with Turkey and Israel, are continuing with two other States parties to the Convention.

Undoubtedly, joining the Convention is an important step for Ukraine, especially for such industries as light industry and metallurgy. In the case that the Pan-Euro-Mediterranean agreement comes into force, Ukraine will be able to:

- join the new forms of cooperation in foreign trade, including by attracting to the regional value chains;
- more efficient use of the production and scientific-technical potentials of the country;
- promote the development of trade in goods between the parties to the agreement on the creation of free trade zones;
- use unified rules of origin of goods;
- to expand the access of domestic goods to the markets of 50 countries and territories.

Thus, an additional impetus to the further liberalization of customs and tariff regulation of Ukraine can be created, provided that the potential of the preferential agreements with its participation is fully utilized. In particular, the adoption of the Law on the Accession of Ukraine to the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin dated November 8, 2017. It opens up the possibility of Ukraine joining global value chains due to the presence of a diagonal cumulation mechanism. Diagonal cumulation as a criterion of rules of preferential origin allows the use of goods that

have received the status of preferential origin in one of the countries parties to the Convention in other countries without losing their corresponding status. However, diagonal cumulation in the pan-Euro-Mediterranean region can be applied only if the countries participating in the production process and the country of destination have concluded free trade agreements that contain identical rules of origin for all the parties involved in the acquisition of goods of preferential origin. Materials originating from a country that has not entered into an agreement on free trade with participants in the production process and the country of destination will be considered as having no status of preferential origin. This means that the application of diagonal cumulation requires not only the accession of a particular country to the Convention, but also the conclusion of separate agreements on free trade zones with identical rules of origin with those parties to the Convention with whom preferential trade will be carried out and cumulation applied.

As of January 1, 2018, the Parties to the Convention are 24 Contracting Parties, including the EU and EFTA countries, Turkey, Albania, Macedonia, Jordan, Montenegro, Serbia, the Faroe Islands, Morocco, Algeria, Tunisia, Palestine, Bosnia and Herzegovina, Egypt, Israel, Moldova, Georgia (42 countries in total). Ukraine is in the process of joining the Convention. The Convention, concluded in accordance with Council Decision 2013/94/EC of March 26, 2012, establishes provisions on the origin of goods sold under the relevant agreements concluded between the Contracting Parties. The countries parties to the Convention in the framework of free trade agreements use identical preferential rules for the origin of goods based on diagonal cumulation: goods obtained status of origin in one of the countries can be used in production processes in any of the other countries without losing their status of origin. The diagonal cumulation matrix of Pan-Euro-Mediterranean, which records the fact that there are deals with identical preferential rules of origin between the Parties to the Convention, is presented in Table. ten.

In the Pan-Euro-Mediterranean diagonal cumulation table (Table 6.10), the «X» mark indicates the existence of a free trade agreement with identical preferential rules of origin, which allow the use of cumulation based on the Pan-Euro-Mediterranean model of rules of origin of goods. The use of a Pan-Euro-Mediterranean diagonal cumulation with a third partner is possible if the «X» mark is present in all sections of the table between all three partners. For example, diagonal cumulation can be applied to a product that is produced in the EU using materials of Norwegian origin when it is exported to Switzerland, since free-trade agreements with identical rules of origin of Pan-Euro-Mediterranean have been concluded between the participants of the production process and the country of destination. On the other hand, when exporting to Europe a European product produced using materials originating from Algeria, diagonal cumulation can't be applied, since there is no free trade agreement with identical rules of origin of Pan-Euro-Mediterranean between Switzerland and Algeria.

As can be seen from the Table 6.10, as of February 2, 2018 (Date of Ukraine's becoming a member of the Convention) Ukraine, like Georgia, does not have agreements with identical rules of origin with one of the Parties to the Convention. According to the reached agreements, Georgia will become the first country to implement the Pan-Euro-Mediterranean convention with Ukraine into the existing free trade zone [14].

Let's formalize the conditions for the use of diagonal cumulation between the Parties to the Pan-Euro-Mediterranean Convention. Table 6.11 a schematic matrix A of the Pan-Euro-Mediterranean diagonal cumulation is presented, the elements of which record the fact of the presence or absence of an agreement on identical rules of origin between the Parties to the Convention.

Table 6.11 Schematic matrix of the diagonal cumulation of Pan-Euro-Mediterranean (compiled by the authors)

Country	Country								
	A_1	...	A_i	...	A_j	...	A_k	...	A_m
A_1									
...									
A_i					a_{ij}		a_{ik}		
...									
A_j			a_{ij}				a_{jk}		
...									
A_k			a_{ik}		a_{jk}				
...									
A_m									

If the matrix element a_{ij} is a criterion reflecting the presence of diagonal cumulation between the countries $\{i, j\}$, then:

$$a_{ij} = \begin{cases} 1, & \text{if there is a diagonal cumulation} \\ & \text{between the countries } \{i, j\}; \\ 0, & \text{if there is no diagonal cumulation} \\ & \text{between the countries } \{i, j\}. \end{cases} \quad (6.1)$$

The matrix A is a square symmetric matrix, the elements on the main diagonal of which are equal to one:

$$\begin{cases} a_{ij} = a_{ji}; \\ a_{ii} = 1. \end{cases} \quad (6.2)$$

In the simplest case, diagonal cumulation can be applied between the three countries parties to the Convention. Then, when exporting goods

originating from country A_i , produced using materials originating from country A_j to country A_k , diagonal cumulation can be applied only if:

$$a_{ij} = a_{ik} = a_{jk} = 1, \tag{6.3}$$

that is, if all three countries have concluded free trade agreements with identical rules of origin of Pan-Euro-Mediterranean. By extending this formula to any number of countries, it is possible to assume that the product of the values of the criterion for the existence of an appropriate agreement between partners should be equal to one. Otherwise (in the absence of an agreement between any two countries), the product of the values of the criteria is zero.

In order to formalize the conditions for the use of diagonal cumulation between the Parties to the Convention, let's use the concept of the norm of a vector, a functional that is defined on a vector space. Denote by R^n the n -dimensional metric space of real numbers. If for any vector $X \in R^n$ there is a number $\|X\|$ such that:

$$\left\{ \begin{array}{l} \|X\| \geq 0, \text{ where } \|X\| = 0 \Leftrightarrow X = 0; \\ \|\alpha X\| = |\alpha| \cdot \|X\|; \\ \|X + Y\| \leq \|X\| + \|Y\|, \forall X, Y \in R^n, \end{array} \right. \tag{6.4}$$

where $\|X\|$ is called the vector X norm. The norm may be entering in a variety of ways. In our case, it is convenient to use the so-called Euclidean norm, which is defined as:

$$\|X\|_e = \sqrt{\sum_{i=1}^n |x_i|^2}. \tag{6.5}$$

That is, the Euclidean norm of a vector is equal to the square root of the sum of squares of the modules of all its elements.

According to the statement of the problem, the elements of the diagonal cumulation matrix can take the value 1 (availability between the Parties to the Convention deals with identical preferential rules of origin) or 0 (the absence of such an agreement). The use of diagonal cumulation is possible between the Parties to the Convention, if transactions have been concluded between all participants in the process with identical preferential rules of origin. Let's consider the set of countries that are parties to the Convention.

$$Y = \{i, j, k, \dots, n\}, n \leq m, \tag{6.6}$$

where m is the total number of countries parties to the Convention.

For the set Y , the through diagonal cumulation can be applied if all the elements of the matrix A which indices belong to the set Y are equal to

one. The number of such elements is equal to the number of messages of n elements by two, which is calculated by the formula:

$$C_n^2 = \frac{n!}{2!(n-2)!} = \frac{n \cdot (n-1)}{2}.$$

Elements obtained by rearranging indices and elements with identical indices are not taken into account. The diagonal cumulation of Pan-Euro-Mediterranean can be applied between all Parties to the Convention, refer to the set Y , if the norm of the vector Y , composed of elements a_{ij} , is equal to the square root of the number of combinations of n elements by two:

$$\|Y\|_e = \sqrt{\frac{n \cdot (n-1)}{2}}, \quad (6.8)$$

where n – the number of elements of the vector Y .

If transactions with identical preferential rules of origin are not concluded between all countries that form the set Y , the condition for increasing the efficiency of their cooperation in the context of applying diagonal cumulation corresponds to maximizing the number of such transactions:

$$\|Y\|_e \rightarrow \sqrt{\frac{n \cdot (n-1)}{2}}. \quad (6.9)$$

Obviously, the maximum efficiency of the diagonal cumulation of Pan-Euro-Mediterranean is ensured if all Parties to the Convention have agreements with identical preferential rules of origin, that is, if all the elements of the diagonal cumulation matrix A are equal to 1. To formalize this requirement, let's use the concept of the Euclidean norm of a matrix that is numerically equal to the square root of the sum of squares of all elements of the matrix:

$$\|A\|_e = \sqrt{\sum_i \sum_j |a_{ij}|^2}. \quad (6.10)$$

If all elements of the matrix are equal to one (that is, bilateral transactions with identical preferential rules of origin are concluded between all Parties to the Convention), then the Euclidean norm of the Pan-Euro-Mediterranean diagonal cumulation matrix is equal to the number of elements of the matrix, that is, the countries parties to the Convention:

$$\|A\|_e = \sqrt{\sum_i \sum_j |a_{ij}|^2} = m, \quad (6.11)$$

where m is the total number of Parties to the Convention (countries).

Taking into account that as of January 1, 2018, agreements with identical preferential rules of origin are not concluded between all Parties to the Convention, the condition for increasing the effectiveness of their cooperation in the context of the Pan-Euro-Mediterranean diagonal cumulation corresponds to maximizing the strength of such transactions:

$$\|A\|_e \rightarrow m. \tag{6.12}$$

Let's use the obtained results to formalize the conditions for the application of diagonal cumulation between Ukraine and other Parties to the Convention.

As already noted, Ukraine acceded to the Pan-Euro-Mediterranean Convention with the adoption of Law No. 2187-VII «On Ukraine's Accession to the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin» dated November 8, 2017. Ukraine's membership in the Convention of Quality its 25th Party will take place on February 1, 2018. As of the moment of acquiring membership in the Convention, Ukraine has no transaction with identical rules of preferential origin with other Parties to the Convention. The free trade agreements concluded by Ukraine with the countries parties to the Convention (EU, EFTA, Montenegro, Macedonia) do not fully comply with the provisions of the preferential rules for the origin of goods of the Convention, in particular in these transactions:

- there are no provisions for diagonal cumulation and documents about the origin of EUR-MED issued by the customs authorities of the exporting country;
- the list of production and technological operations is based on the rules of origin of the General System of Preferences (Montenegro);
- there is no simplified system for confirming the origin of goods by authorized exporters (Macedonia).

The absence of transactions with identical rules of origin between Ukraine and the Parties to the Convention means that Ukraine can take advantage of the diagonal cumulation only after concluding the relevant agreements. To implement the provisions of the Convention and the application of diagonal cumulation, it is necessary to replace within the framework of existing bilateral free trade agreements of Ukraine with the Parties to the Convention (EU, EFTA, Montenegro, Macedonia, Georgia, Moldova) preferential rules of origin of goods for the rules of origin of the Convention. The provisions of Article 39 of the Protocol I «On the Definition of the Concept of» Origin of Goods «and Methods of Administrative Cooperation» to the Association Agreement between Ukraine and the European Union stipulate that «after Ukraine's accession to the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin, the Subcommittee on Customs Cooperation may also decide to replace

the rules of origin, given in this Protocol, contained in the annex to the Convention «[52, p. 22].

Let's formalize the requirements for the possibility of using diagonal cumulation between Ukraine and other Parties to the Convention. Let's consider a group of countries participating in the production process, which includes Ukraine and other n Parties to the Convention. Let's form the vector Z , which consists of the elements of the matrix of diagonal cumulation A (Table 6.11), corresponding to the relations of Ukraine with other members of the group. Relationships mean the presence or absence of a deal between members of a group with identical rules of origin of Pan-Euro-Mediterranean. In such a vector will be n elements. Since as of February 1, 2018, Ukraine is the last signatory to the Convention (its 25th party), then $n < 25$ (Table 6.10).

The Euclidean norm of the vector Z is equal to:

$$\|Z\|_e = \sqrt{\sum_j |a_{25j}|^2}, \quad (6.13)$$

where j is the set of index values of countries belonging to the group; a_{25j} is an element of the matrix A , which fixes the presence or absence of a transaction with identical rules of origin of Pan-Euro-Mediterranean between Ukraine and the country j .

In case Ukraine will have such agreements with all countries of the group, the Euclidean norm of the vector Z is equal to:

$$\|Z\|_e = \sqrt{\sum_j |a_{25j}|^2} = \sqrt{n}. \quad (6.14)$$

where n is the number of elements of the vector Z .

If transactions with identical preferential rules of origin are concluded by Ukraine not with all countries of the group, the condition for increasing the effectiveness of their cooperation in the context of applying diagonal cumulation corresponds to maximizing the number of such transactions:

$$\|Z\|_e = \sqrt{\sum_j |a_{25j}|^2} \rightarrow \sqrt{n}. \quad (6.15)$$

Thus, the criterion for ensuring the effectiveness of Ukraine's participation in the Pan-Euro-Mediterranean Convention is maximization of the number of transactions with identical preferential rules of origin between Ukraine and other Parties to the Convention. As of February 1, 2018, as already noted, Ukraine does not have any such transaction, but rather their conclusion is provided for by the Road Map of Ukraine's accession to the Convention (Table 6.12).

Table 6.12 Roadmap of Ukraine's accession to the Pan-Euro-Mediterranean Regional Convention (compiled by the authors)

Legal background and/or date of event	Event
Order of the Cabinet of Ministers of Ukraine of May 27, 2016 No. 418-p	Approval of the Government Priority Action Plan for 2016
Order of the President of Ukraine of 01.09.2016 No. 236/2016-rp September 13, 2016	Authority of S. Kubiv to sign a letter of appeal on Ukraine's accession to the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin Signed a corresponding document sent to the depositary of the Convention – the Council of the European Union
May 16, 2017 (Brussels, Belgium), VI meeting of the Joint Committee of the Convention November 8, 2017	Unanimous decision to formally invite Ukraine to join the Convention as a Contracting Party The adoption by the Verkhovna Rada of Ukraine of the Law of Ukraine No. 2187-VII «On the Accession of Ukraine to the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin»
December 13, 2017	Transfer of the instrument on Ukraine's accession to the Regional Convention on Pan-Euro-Mediterranean Preferential Rules of Origin to the General Secretariat of the EU Council
February 1, 2018	Ukraine gaining membership in the Convention
February – May 2018	Preparation of a draft decision of the Sub-Committee on Customs Cooperation on the replacement of Protocol 1 with the rules of the Convention and its coordination with the European side
	Preparation of a draft act of the Cabinet of Ministers on the approval (approval) of the draft decision
June – July 2018	Implementation of Ukraine and the EU domestic procedures necessary for the entry into force of such a decision
	Signing the decision of the Subcommittee on Customs Cooperation and its entry into force
2018	Application of the Committee on Customs Cooperation on the replacement of Protocol 1 by the Rules of Origin of the Pan-Euro-Med Convention on the Matrix Convention
September 12, 2018	The Government of Ukraine has approved the draft Decision No. 642-p of the draft Decision of the Subcommittee Ukraine-EU on customs cooperation on the replacement of Protocol 1
2018 – 2019	Replacing the existing preferential rules of origin of goods in free trade agreements with EFTA countries, Montenegro, Macedonia) with the rules of origin of the Convention and the introduction of diagonal cumulation

In order to deepen economic integration and create a single cumulation zone, the member states of the Convention, within the Pan-Euro-Mediterranean working group, are working on revising the provisions of the preferential rules of origin for goods of the Convention, should come into force approximately in 2019. The main changes in the Convention are as follows:

1) application of the averaging method in calculating the price of franco-works of products and the cost of materials originating from third countries to take into account fluctuations in value and exchange rates;

2) changes in the marginal level of the cost of the rule of «tolerance»: for agricultural products 15 % of the net weight of the finished product, for industrial goods 15 % of the ex-factory price (currently 10 % of the ex-factory price is applied);

3) introduction of full cumulation by all countries in relation to all products, with the exception of light industry goods (at present, full cumulation can be applied only in trade between certain parties to the Convention and under certain conditions specified in Annex II to the Convention);

4) separation of accounting, prior authorization at the discretion of each participating country (the exporter is not obliged to confirm that maintaining separate accounting is costly or causes material difficulties)

5) application of the principle of territoriality to light industry goods (Article 11 of the Convention);

6) exclusion of Article 13 of the Convention on the prohibition of the return of duty or exemption from payment of duty on goods originating from third countries, used in processing, with the exception of finished products of commodity groups 50 – 63 according to UCGFEA;

7) approximately starting from 2020, establishing a single form of a document on the origin of goods for the replacement of existing documents (certificates EUR.1 or EUR-MED) and the use of self-declaration by exporters of the origin of goods in commercial documents registered in the system of registered exporters «REX» (from January 1, 2017. «REX» system is used in the framework of the General System of Preferences);

8) changing the list of operations to which materials should be subjected, originating from third countries, in particular:

a) the abolition of restrictions on sugar in terms of cost and the application of the principle of weight restriction, which greatly simplifies the procedure for determining the origin of goods of commodity items 1704 and 1806 (except for 1806 10 of UCGFEA);

b) change of processing conditions for vegetable oil of commodity items 1507 – 1515 according to UCGFEA: for items 1508, 1511 and 1515 – change of tariff subheading, for soybean oil (heading 1507 according to UCGFEA – change of tariff position, for sunflower oil (position 1512 according to UCGFEA) – all plant materials must be fully developed in a given country;

c) for commodity group 26 according to UCGFEA – a change in commodity position, for group 30 according to UCGFEA – production from materials of any position;

d) an increase in the limit on the cost of materials originating from third countries:

- for group 25 of UCGFEA up to 60 or 70 % of the ex-factory price;
- for groups 27, 41, 42, 47 UCGFEA, partly for commodity item 2905 of UCGFEA, commodity subpositions 2905 43.2905 44, 2905 45 up to 60 % of the franco-factory price;
- for commodity groups 33, 35, 40.44, 48, 49.39, according to UCGFEA, up to 70 % of the franco-factory price of products;
- for stationary equipment and devices of railway and tram tracks of group 86 according to UCGFEA up to 50 % of the franco-factory price, excluding a separate rule of origin for commodity item 8608 of UCGFEA;
- for vehicles of group 87 according to UCGFEA, up to 45 % of the franco-factory price, excluding the rules of origin established for certain goods of commodity items 8709.8710, 8715, 8716 according to UCGFEA.

Activities that are introduced by Ukraine and other Parties to the Pan-Euro-Mediterranean Convention in order to fully utilize the potential of this agreement are systematized in the areas in the Table 6.13.

As can be seen from the table, measures for the full use of the potential of the Pan-Euro-Mediterranean single cumulation zone can be streamlined:

1) behind the subject of implementation – measures that are introduced at the level of a separate Party to the Convention (in the case of Ukraine, namely by the Subcommittee on Customs Cooperation), or measures that are introduced by all Parties to the Convention within the framework of the Pan-Euro-Mediterranean working group;

2) on the implementation mechanism – taking advantage of the diagonal cumulation of Pan-Euro-Mediterranean at the level of an individual Party to the Convention and the deepening of economic integration and the creation of a single cumulation zone at the level of the overall management of the implementation of the Convention;

3) for the implementation goal – measures aimed at fuller use of the potential of already concluded free trade agreements with other Parties to the Convention and measures to maximize the total number of such transactions (at the level of a particular Party to the Convention), as well as measures aimed at minimizing the impact of adverse economic factors and facilitating the accession of countries to value chains within the Pan-Euro-Mediterranean cumulation zone (at the level of the overall management of the implementation of the Convention);

Table 6.13 Activities that are introduced by Ukraine and other Parties to the Pan-Euro-Mediterranean Convention to fully utilize the potential of the single cumulation zone (compiled by the authors)

Level	Mechanism	Aim	Measures	Aspect
Measures introduced by Ukraine	Taking advantage of the diagonal cumulation of Pan-Euro-Med	Improving the potential of existing free trade agreements with Parties to the Convention through Maximizing the number of transactions with identical rules of origin	Amendments to the existing bilateral free trade agreements of Ukraine with the Parties to the Convention on ensuring identical preferential rules of origin of goods Pan-Euro-Med (EU, EFTA, Montenegro, Macedonia, Georgia, Moldova) The conclusion by Ukraine of free trade agreements with identical preferential rules of origin of goods with other Parties to the Convention (first of all, Turkey and Israel)	Organizational
Measures introduced by all Parties to the Convention in the Pan-Euro-Med Working Group	Deepening economic integration and creating a single cumulation zone	Revision of the conditions in the framework of the Pan-Euro-Mediterranean working group parties to the application of preferential rules of origin of goods by countries		Methodical
		Accounting for fluctuations in value and exchange rates	Application of the averaging method in calculating the price of ex-works of products and the cost of materials originating from third countries	
		Facilitating the accession of countries to value chains within the Pan-Euro-Mediterranean cumulation zone	Change the marginal value of the rule of «tolerance» in the direction of increasing The introduction of full cumulation by all countries in relation to all products, except for light industry goods	
			Simplification of accounting procedures, prior authorization at the discretion of each participating country Establishing a single form of document on the origin of goods for the replacement of existing documents The use of self-declaration by exporters of the origin of goods in commercial documents registered in the system of registered exporters «REX» Changing the list of operations to which materials must be subjected, originating from third countries, in particular	Organizational

4) on the aspect of implementation:

a) organizational:

– at the level of an individual Party to the Convention – to amend the existing bilateral free trade agreements or enter into new agreements with identical preferential rules of origin of Pan-Euro-Mediterranean;

– at the level of general management of the implementation of the Convention – reviewing the conditions for the application of preferential rules of origin of goods in the direction of optimizing documentary evidence of the origin of goods and the list of processing operations for goods originating from third countries, as well as simplifying procedures for declaring the origin of goods and their accounting;

b) methodical – revising the conditions for applying preferential rules of origin of goods in the direction of adjusting the methodological basis for the introduction of the Pan-Euro-Mediterranean single cumulation zone (at the level of the overall management of the implementation of the Convention).

Ukraine's accession to the Convention and the full use of the potential of the Pan-Euro-Mediterranean single cumulation zone will provide increased opportunities for preferential export of domestic goods to promising foreign markets and attracting Ukrainian producers to European and trans-regional value chains. As a result of Ukraine concluding bilateral free trade agreements with identical rules of origin of goods with other Parties to the Convention, trade procedures will be simplified, the use of the export potential of the state will increase, and economic integration with the European Union will increase.

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Chapter 7

Determinants of the import dependence of the national economies

7.1 Genesis of import control theories in open economies

The active participation of the country's economic complex in the international division of labor through entry into the world economic space is a necessary condition for the formation, development and rational use of the potential of the national economy. Economic interaction with the outside world in modern conditions is a catalyst for market transformations, creating an impetus for enhancing the development of institutions and mechanisms that were underdeveloped and adapting the national economy to functioning in the context of changing market conditions in global commodity markets.

At the same time, foreign economic factors in the development of the national economy play an ambiguous role. On the one hand, attracting to world economic relations and raising the level of foreign trade quota as an indicator of economic openness contributes to the rationalization of the consumption of all types of resources and the structural optimization of the national economy, increased competitiveness and the transition to new technological levels. However, the excessive and economically unjustified openness of the national economy (above the level corresponding to the national interests of the country), the increasing dependence on both sales opportunities exclusively on foreign markets and on the supply of imported equipment, technology and service by foreign contractors is evidence of the negative impact of foreign economic factors on national economy, which, in the end, leads to a gradual loss of competitiveness advantages from the conjuncture of commodity markets, ignoring national economic interests, stagnation and the return of the country to lower technological order.

Contrary to the efforts of the institutions of the multilateral trading system and regional trade unions, the list of protectionist barriers to the movement of goods, services, capital and people across national borders

is increasing. It contains traditional duties and quotas, technical restrictions on import (for example, by introducing safety standards or standards different from those practiced by exporting countries), as well as fiscal, legislative and administrative barriers. In addition, freedom of movement is restricted through state support, government procurement and state monopolism in certain sectors of the economy.

The growth of protectionism under current conditions is a paradox of the modern consumer society, in which few people buy domestic goods if a cheap and high-quality import analogue is offered. The government is often interested in protectionism, fearing that the uncontrolled flow of import may lead to the bankruptcy of national enterprises, a decrease in employment and tax revenues. Under such conditions, barriers make import more expensive or even unaffordable, which expand the demand for domestic goods, allows them to be sold at higher prices, and then prerequisites are created for the growth of the domestic economy.

In many countries, protectionist barriers are the government's response to changes in the quality of goods and services imported declining public safety and state control, as well as an undesirable prospect of opening up strategic sectors of the economy. The state gains from protectionism in the form of duties and tax levies, as well as state monopolism in a number of sectors, and national enterprises in the form of profits, formed in conditions of limited competition.

The study of views on the place and the need to regulate the import of goods went through a long stage of evolution within the framework of international trade theories, but the lack of a scientific definition of the category «import regulation» actualizes the interpretation of this term. The economic encyclopedia contains definitions of the term «regulation» as a management function ensuring the functioning and development of phenomena and processes within specified quantitative and qualitative parameters.

But regulation of international trade is a set of forms, methods and levers of state and supranational regulation of exports and import of goods and services in order to create favorable conditions for expanding reproduction within the country, primarily for assigning maximum profits to national and transnational companies [1, p. 30].

The regulation of the import of goods should consider the system of actions of the government and supranational institutions aimed at creating favorable prerequisites for expanded reproduction on the basis of legality, non-discrimination, transparency, balancing the interests of the state and society and harmonizing national development priorities to the norms and rules of international regulatory institutions.

The countries that were the first to choose the path of enhancing foreign trade were skeptical about import and their influence on the development of the domestic market, was due to the ideas of the economic school of early capitalism — mercantilism. Its supporters saw import as

a threat to domestic producers, and their views were quite convincing, which contributed to the spread of mercantilist ideas in the scientific world. The main arguments regarding the negative impact of import on the country's economy are:

- 1) production reduction occurs in two directions:
 - a cheaper imported product attracts a buyer, which negatively affects the sales volumes of domestic enterprises;
 - import lead to a redistribution of national incomes in favor of foreign producers;
- 2) import contribute to the outflow of foreign currency from the country. Thus, in the early stages of the development of international trade there was an outflow of gold and silver, which served as world money.

Given these arguments, mercantilists rightly viewed import as a determinant, which hinders the process of economic growth, and then recommended the implementation of measures to limit import flows into the country. In modern conditions, a number of countries to varying degrees regulate the entry of highly competitive import into the national market. For example, the United States, advocating the ideas of liberal international trade, carrying out restrictive measures on the basis of admitting foreign metal sellers to its market, which were initiated by American manufacturers, faced problems in marketing this type of product.

In the classical theory of international trade, the abolition of protectionist barriers is considered a blessing, since by increasing the level of sales, it contributes to increasing wealth. Governments need to maintain a free trade regime, entrepreneurs instead should abandon the organization of production of goods that are more profitable to buy abroad, and instead use the absolute advantages of the national economy (natural or acquired as a result of choosing the best production technology) and focus on what can make the most efficient and best of others.

D. Ricardo's theory of comparative advantage developed the views of Adam Smith, focusing on competitive factors. According to the D. Ricardo's theory, a country can't even get income having an absolute advantage for the production of a product. Enough to offer it to the market, where the production of such goods less competitive, that is, requires a relatively large capital costs and labor. Thus, free trade does not limit the country's absolute advantage, and encourages to seek comparative advantage as a result of increasing income opportunities and increasing the total supply of goods and services.

Liberal economists J. S. Mill and A. Marshall in the early twentieth century argued that the mercantilist views about the nature of the import are one-way, but they have seen in the import of a powerful resource for economic growth, which has a number of key advantages [5, p. 82]:

- 1) strengthening the capacity needs of the country;
- 2) increased competition, leading to the elimination of conservatism in the production;

- 3) improvement of the economic structure by eliminating inefficient structures and the reallocation of resources to more efficient production;
- 4) formation of incentives for domestic producers to increase the quality of products;
- 5) strengthening all sources and resources for the country's transition to a higher level of production efficiency.

Their attitude to free trade in the middle of the twentieth century were expressed by P. Samuelson, W. Stolper, R. Jones, T. Rybczynski, who developed the idea of the classics, identifying positive and negative factors of an open economy and liberalization of international trade.

American scientists D. Dollar and A. Kraay, using data from 92 countries have confirmed that openness promotes economic growth and income levels in developing countries, increases in direct proportion to the growth of the world [15].

A similar opinion is shared by Harvard University professor J. Sachs and A. Warner. After a study developing during 1970 – 1980-ies, they found that the part of the country, which was characterized by a high level of transparency on average grew by 6 times faster than the country, supporters of protectionism [35, p. 18 – 23]. In addition, one of the ministerial conference in London devoted to the problems of developing countries, the former head of the WTO M. Moore said: «Free trade has increased almost 17 times, and despite the high level of the gap in economic development between the rich over the past 50 years and poor countries gain are two sides ... in particular, the standard of living in each of the countries has tripled, life expectancy in developing countries rose from 41 to 62 years of education among the adult population increased from 40 % to 70 %» [28].

According to the representative of neoliberalism, J. Wiener, the mutual displacement of customs barriers to the movement of factors and results of economic activity is due both to the needs of producers in expanding sales markets and the needs of consumers in expanding the supply of goods at low prices. As a result, the concentration of trade flows increases (according to J. Wiener – trade creation), and also resources are more efficiently distributed within the framework of customs or other preferential unions. In addition, as noted by J. Wiener, liberalization can have a negative impact on countries outside of trade unions, which is expressed in the exclusion of their participants from trade with third countries (trade diversion).

However, among scholars and representatives of governmental and non-governmental organizations there is a perception that free trade will not ensure economic growth for all countries, but will only lead to further enrichment of economically developed countries [17]. Such discussions were especially aggravated after large-scale anti-globalization protests in Seattle, Washington, Brussels and Genoa in the early twentieth century. In particular, a professor of international political economics at the J. Kennedy School of Public Administration D. Rodrik believes that as a result

of concentrating efforts on international integration, human and other strategic resources of developing countries are redirected from the priority development areas (education, health, industrial potential and social well-being) to less important ones [34, p. 54 – 63]. In «Trade Policy Reform as an Institutional Reform,» he substantiates the opinion that no country can develop successfully, leveling international trade, but no country can develop solely due to trade liberalization [33]. In 1999 D. Rodrik in collaboration with F. Rodriguez presented the results of joint work on the basis of a review of recent empirical studies on the relationship between the level of openness of the economy and its growth [32] and determined that the liberalization of trade policy can't in itself be a factor of economic growth many elements of public policy. That is, countries with a certain combination of factors in the implementation of a systematic approach to public policy could achieve economic growth while maintaining certain trade restrictions, and vice versa, the liberalization of trade policy alone will not necessarily lead to economic growth.

In recent years, the liberalization policy of the WTO has significantly reduced the barriers to international flows of goods and services, but the organization's efforts to establish a non-discriminatory trade regime in order to ensure equal conditions for all participants on the world market are still not effective enough. The procedure for regulating international trade that has now been established is in the interests of only a narrow circle of countries with a high level of capital intensity of the economy. As a result, the liberalization of the foreign trade regime in countries that do not have competitive advantages in high-tech industries can lead to a significant limitation of economic development opportunities. It is obvious that the preservation of the existing rules of the game in the world market leads to the asynchronous development of national economies and the growth of the gap between the advanced and catching-up economies. Under these conditions, the most effective strategy for economic development in countries that do not have a sufficiently high technological level of national production is to form their own competitive innovation sector.

Professor S. Evenett at the University of St. Gallen (Switzerland), who specializes in international trade and economic development, believes that the G20's violation of content-protection agreements is recorded on average «once every three days», and measures that lead to the deviation of trade from its development on the most optimal scenario (that is, in the absence of artificial barriers), are 80 % of commodity items. At the same time, S. Evenett notes a certain passivity of the WTO in the face of threats of protectionism [17].

The results, contrary to the basic assumption that underlies the GATT/WTO agreements, were found on the basis of the standard gravity model of bilateral trade in goods for 175 countries for 1950 – 1999, in particular:

- trade structure of WTO member countries is not fundamentally different from countries that are not members of the organization [12];

- growth of foreign trade in countries that have acceded to the WTO is happening, but not to the extent that is expected [11];
- there is, but is not significant, evidence that the WTO contributes to reducing instability and increasing the predictability of the development of international trade [13];
- there is no solid confirmation of the fact that WTO member countries have lower tariff and non-tariff barriers than non-member countries [14].

Research results indicate that E. Rose is not the only one who did not find empirical evidence of the positive results of the functioning of GATT/WTO, however, was the first to question the validity of the foundations of this system of multilateral agreements.

The results obtained by D. Irwin [21] are indicative of the correlation degree between the development of international trade, the nature of trade policy and economic growth. In particular, D. Irwin in his work «Long-run trends in world trade and income» [22] investigated the statistical relationship between the development of international trade and world income for three periods: the pre-war – 1870 – 1913, the Interwar – 1920 – 1938 and post-war – 1950 – 2000 and got the following results:

- volume of international trade grew faster than the level of world income during the entire study period (except for the interwar period);
- study confirmed the hypothesis that during 1973 – 1984 was a qualitative change between the volumes of international trade and the level of world income (as compared with 1950 – 1973) and it was characterized by a decrease in the elasticity of world exports relative to income;
- since 1985, the dependence of world exports on the level of world income has noticeably strengthened, but the results of the study do not give an answer, due to what factors this happened.

The modern system of regulation of international trade relations is developing in the direction of reducing the role of individual instruments, such as quotas and duties, with the result that participating countries are increasingly using latent measures to protect national markets from foreign competition, the use of which is difficult to control. In particular, the WTO member countries make extensive use of strict sanitary and phytosanitary measures regarding the import of agricultural products, as well as introducing high technical standards for industrial goods. To change the existing situation, it is necessary to develop new rules governing the use of sanitary and phytosanitary measures, as well as technical standards to ensure a non-discriminatory regime. These issues receive a lot of attention in the WTO, but the active work of the organization's members in this area has not yet brought significant results, adversely affecting countries with low levels of development, which, due to differences in domestic standards, have less opportunity to use sanitary and phytosanitary requirements in foreign trade policy compared with economically developed countries.

The greatest success of the WTO has reached in the implementation of the principle of exceptional tariff protection and reducing the protectionist role of duty. Now, having ensured a significant decrease in customs protection, the WTO is working to eliminate existing tariff peaks and to reduce tariff escalation. Thus, the main obstacle to the liberalization of the agricultural sector remains the persistence of high duties, established as a result of tariffication of non-tariff barriers. In turn, tariff escalation remains a problem for international trade in industrial goods, as a result of which goods with a low degree of processing when imported into the country are subject to low customs tariff rates. The danger of this trend is the formation of less favorable terms of trade for countries specializing in the production of products with low added value.

At the same time, in our opinion, when choosing economic policy is not so significant, openness affects the growth of economic growth, more importantly, does it contribute to sustainable growth to a greater extent than protectionism. A small number of scholars among free-trade advocates argue that openness in itself is sufficient to ensure economic development. Leading scholars and economists who hold liberal views recognize that, in the absence of macroeconomic stability, perceived state policy and reliable adherence to contractual conditions, it is unlikely that the country will be able to sustain significant growth over a long period of time [24].

As a result of a survey of economists from different countries at the end of the twentieth century it was found that 95 % of US scientists and 88 % of Austria, France, Germany and Switzerland share (either completely or with reservations) the assertion that duty and import quotas reduce the overall economic. The research results show that almost one fifth of European economists consider the use of duties and quotas to be beneficial. Moreover, it remains unclear which part of the respondents hold an opinion on the unconditional profitability of trade, and which part only with reservations. How these ideas contrast with the conclusions of the classical theory of international trade is reflected in Table 7.1.

Thus, in economics there have been certain changes in the erosion of the unconditional judgment on the benefits of free trade. Most economists agree that free trade may not be a «technically optimal» policy, but it remains «pragmatically optimal». In other words, in the face of a lack of information and problems inherent in any system of selective protectionism, free trade remains the policy, as a result of which the most likely achievement of the highest possible level of economic efficiency.

In modern conditions it is obvious that no country can do without substantial and diversified import. The needs of a modern economy are so complex and diverse that even the leading industrial countries of the world, having an effective and multilaterally developed economy, are forced to import significant and growing volumes of goods from abroad.

Table 7.1 Key findings of the international trade theory

Theory of classical school	Modern theory
1. Free trade allows each country to get the maximum benefit from the international division of labor (regardless of the policies pursued by its trading partners)	1. The main argument in favor of free trade is that holding it increases the aggregate economic efficiency
2. The mutual benefits of trade (division of labor) will exist even if one country is more efficient than another in the production of goods	2. A country can benefit from free trade even if any production in its territory is less efficient than in other countries
3. It is beneficial for the country to leave more favorable internal production conditions unused and to buy goods that could be manufactured to the bottom, in regions where production conditions are less favorable	3. A domestic manufacturer can lose in international competition, even if it is the most efficient manufacturer in the world
4. In a world organized on the basis of the division of labor principle, any change must, to one degree or another, touch the short-term interests of many groups. It is not related exclusively to international trade (and is not an excuse for protectionist measures)	4. The theory of international trade shows that in the conditions of free trade some parties may incur losses
5. Even if other countries adhere to protectionism, free trade is most appropriate for the interests of any country	5. Unilateral free trade may not be the best policy when other countries create barriers
6. There are no conditions when protectionism can bring any benefits to the country	—
7. Benefits from foreign wholly and entirely related to import, since exports are only a means of paying for import. If it were possible to import without exporting anything, the importing country would enjoy prosperity	—

Source: built by the author according to [2; 9; 14]

There are three categories of import:

1. Import of goods that are not produced in the country, or are not produced in sufficient quantities, which may be due to the lack of certain factors of production (for example, land, natural resources, labor), crisis phenomena and structural problems in the economy, various extraordinary circumstances and other

2. Import of high-quality goods with an order of magnitude higher technical characteristics, as well as advanced equipment and technologies to improve the living standards of the population and enhance national competitiveness.

3. Import of products of similar quality and technical characteristics are an order of magnitude cheaper, and therefore more profitable for consumers, although they pose a potential threat to local production (it is these products that are the main object of protectionist measures).

In world trade practice, substantial and growing import flows are viewed primarily not as a negative phenomenon, but mainly as an alarming process requiring certain corrective measures by the state. Therefore, it is not by chance that in the conditions of the rapid growth of import over exports and the formation of a high liabilities side of the trade balance, in the second half of the 1980s. Leading foreign countries – the United States, Britain, France and a number of others have developed and launched to implement large-scale national programs to improve competitiveness and export development. During this period, there was also a general strengthening of protectionist principles and practices of using various restrictions in international trade.

The effects of import and the determinants, they are determined, are the object of study of many modern economists. So, according to the Korean scientist S. Kim, the impact of import on the economy depends on the type of market environment, and on institutional factors. As evidence, he argues that in conditions of perfect competition, the growth in import of consumer goods leads domestic enterprises (producing similar products) to introduce innovations, modernize and improve technologies to produce products that are competitive compared to foreign analogues. In turn, the import of capital and intermediate goods stimulates enterprises to diversify and specialize, and further increases domestic productivity. However, with imperfect competition, the capacity of the domestic market for import-substituting products decreases with the growth of import against the background of a decrease in investment and productivity [24].

Similar views are shared by the Korean researcher J. Lee, who, after conducting a cross-sectional analysis from 1960 – 1985 in 89 countries of the world, showed a positive relationship between the share of import of capital in the volume of investment and GDP per capita (especially in developing countries). Summing up, J. Lee noted that: «by adding to the present capital the available import volumes, the growth rates of countries can increase significantly compared with other countries that are at the same stage of development» [26, p. 95]. In his work «Import of capital and long-term growth», J. Lee also suggests that the use of imported resources is often more productive and cheaper than the use of domestic means of production.

The specificity of the goods imported can play a key role in substantiating the phenomenon of economic growth. Analyzing the development of 132 countries in the world during 1998 – 2010 Turkish economist I. Iscan came to the conclusion that the type of imported goods (import of capital, consumer goods or intermediate consumption goods) affects the economy of the importing country. His calculations show that the import of capital and intermediate consumption goods has a positive effect on the economy, while the import of consumer goods has a negative effect [23, p. 101 – 105].

Regional aspects of the relationship between economic growth and exports/import are analyzed by American economists R. Lawrence,

D. Weinstein on the example of Japan and South Korea. Scientists, taking 9 years (1964–1973) as the time frame of the study, found that import growth and openness of the national economy gave positive results for the development of the Japanese and partly Korean economies. The researchers also noted that import have a positive effect on economic efficiency mainly due to the effect of competition [25].

However, the American economist of German origin M. Muendler based on the study of the experience of Brazil during the years 1989–1998. He came to the conclusion that competitive effects on the national market are significant due to import and the negative relationship between import of intermediate consumption goods and labor productivity [29].

The positive effects of import are cited in the works of scientists from Singapore M. Thangavel and Indian economist G. Rajaguru (on the example of India, Indonesia, Malaysia, Philippines, Singapore and Taiwan), as well as the American economist J. Damai and Iranian scientist A. Tavakoli (on example 47 Mexican industries). However, the study conducted by M. Blomstrom, R. Lipsey and M. Segen under the auspices of the American National Bureau of Economic Research in 78 moderately developed countries during 1960–1985 gave opposite results.

The important role of the import component in substantiating the processes of economic growth was indicated by the Nigerian economist T. Awokuse on the basis of an analysis of the interrelation of foreign trade and economic growth of Bulgaria (1994–2004), the Czech Republic (1993–2002), Poland (1995–2004) and three Latin American countries (Argentina, Peru and Colombia). In his opinion, the exclusion of import from the research process and focusing only on the role of exports as an engine of economic growth is erroneous and incorrect [14, p. 166–170].

His views are shared by the Iranian economist H. Esfahani, who used a three-stage model (economic growth, exports and import) in the form of a system of equations to reflect the importance of including import in the research process. After analyzing 31 countries of the average level of development, he concluded that the main task of exports is financing the import of intermediate-use goods [16]. This model was subsequently supplemented by an economist from Singapore R. Mahadevan and an Australian scientist S. Suardi, based on inclusion as a variable export-import price. In their study, *Dynamic Analysis of Uncertainty on Import and/or Export-led Growth*, the period 1957–2005 for Japan, 1970–2005 for Korea, 1961–2005 for Taiwan and 1973–2005 for Hong Kong was analyzed. It is concluded that economic growth in Japan was achieved through import, in Hong Kong due to exports and import, in Korea and Taiwan no relationship between foreign trade and growth was recorded [27, p. 160–167]. Ambiguous research results were also obtained by a team of scientists led by V. Mishra, who analyzed the growth strategy of import and export based on data for 1982–2004. For Pacific island countries (Fiji, Papua New Guinea, Solomon Islands, Tonga

and Vanuatu) and scientists under the leadership of F. Islam, who analyzed the development indicators of 40 world economies during 1971 – 2006.

In our opinion, the ambiguity of the results of identifying bilateral causal relationships between import and economic growth requires theory and empirical studies to take into account a number of determinants of influence on the effects of import, in particular, the type of imported products, the level of economic and technological development of the importing country, and institutional factors such as the market environment, etc. It is also obvious that import should be treated as an economic category, it has short-term and long-term effects on the national economy.

There are a number of empirical studies by foreign authors on the phenomenon of import substitution policy as part of an economic growth strategy (late XIX – early XX centuries). The problem of import dependence was first analyzed in the 1950s. The leader of the so-called «structuralist» direction of economic thought was R. Prebisch and subsequently, his British counterpart H. Singer added that he formulated a provision on the existence of a long-term trend of deterioration in the terms of trade for countries exporting raw materials and import manufactured goods. R. Prebisch substantiated the thesis that unbalanced development and hypertrophied export orientation of less developed countries with reference to the economy of developed countries in combination with twisted institutions and domestic economic structures give rise to dependence on the «first world» (developed countries with market systems). In his analysis, G. Preba used terminology corresponding to the «center-periphery» relationship, which was subsequently actively used in the theory of dependence and the theory of world systems [31, p. 255 – 263]. In his opinion, the determinants of the deterioration in the terms of trade should include, in particular, the peculiarities of the international division of labor, the discriminatory trade policies of developed countries and the changes resulting from scientific and technological progress [30]. The main idea of the model of R. Prebisch is that import substitution as a form of selective protectionism can counteract the problem of deterioration in the terms of trade and provide adequate development for an adequate policy. As a result, import-substituting industrialization-based industrialization became the leitmotif of the economic theory of development during the 1950s and 1960s.

The policy of import substitution is a component of the policy of protection of «young industries» – one of the most controversial arguments in favor of protectionism. The arguments in favor of the development of young industries (infant industry protection) were at one time justified by F. Liszt in the work «The National System of Political Economy» and became the basic principles for the development of the economies of most of Latin America and Southeast Asia (new industrial countries) in the middle of the twentieth century began import-substituting industrialization.

The essence of the argument for the protection of young industries is motivation of the imperfections of exclusively market mechanisms;

under the conditions of institutional imperfection, they are not capable of adequately accumulating and directing or relocating resources towards potentially competitive industries. The economy at the same time falls into the circle of dependence on its current state, when an insufficient level of current competitiveness does not allow investing resources in long-term projects, and this, in turn, further worsens the current state of competitiveness. However, it should be borne in mind that the temporary protection of young industries contains the danger that young industries are protected, become «forever young» and require indefinitely long protection from competition and will be deprived of incentives for technological improvement due to guaranteed income [9, p. 94–95].

The policy of protecting young industries, according to L. Shynkaruk [9, p. 96–99], does not justify itself in the absence or insufficiency of such factors as:

- openness, impartiality and protection against corruption in relation to procedures for adopting government decisions on granting preferential regimes;
- high level of qualification and moral qualities of government personnel who are able to correctly identify industries with promising comparative and competitive advantages;
- availability of high-quality market information on the relative costs of production and their dynamics, which allows to make informed decisions about relative competitiveness;
- focus of society on the values of development, self-improvement, rather than material consumption.

In our opinion, the policy of protecting young industries and the policy of import substitution can't be considered as a panacea for long-term and sustainable economic growth. Their effectiveness essentially depends on a wide range of development conditions, including an active policy of institutional and infrastructural development, active formation of human and intellectual capital, balanced macroeconomic policies, the fight against corruption, and the creation of an effective state apparatus.

In the work «Did Import Substitution Promote Growth in the Late Nineteenth Century?» [21] D. Irwin tried to figure out how to explain the empirically proven positive correlation between economic growth and high tariffs among the countries of the world during the study period. As a result of his research on data for 27 countries from 1870 to 1913 the following conclusions can be drawn:

- studies based on the regression model of the dependence of economic growth on the level of the customs tariff rate, one of the regressors in which the initial level of income was, establishes a positive correlation between these two variables, is most characteristic of 1890–1913. In the 1870–1890, economic growth was also positively correlated with the indicator of democratic institutions of government;

- rapid growth at the end of the XIX century occurred in those countries where there was a decrease in the proportion of people employed in agriculture;
- the effect of tariffs on reducing the share of people employed in agriculture depends on the nature of the country's comparative advantages. Thus, some countries slowed down the flow of people employed from agriculture to industry by introducing tariffs on import of agricultural products, while others, on the contrary, accelerated this process by imposing import duties on industrial goods;
- rather, economic growth in Argentina and Canada (both countries were characterized by a high level of import tariffs and GDP growth per capita) was due to the export-oriented production of food, rather than due to industrialization based on import substitution.

Despite the fact that import-replaceable industrialization in Latin America did not yield the expected results, new branches of economic activity emerged in the countries, their own technological base was formed, additional jobs appeared, enterprises were able to compete internationally and enter new markets using their own technologies.

Most economists considered that the main mistake of the policy of import substitution in Latin American countries was the start of this process in light industry and basic industries and, unlike Korea and Taiwan, not using export opportunities, which caused a high autarky level. It should, however, be noted that a wide export of light industry products was not possible until 1960 for the operation of the trade rules established by developed countries (which were the only possible consumers) for this industry. Only export of equipment, raw materials and agricultural products was economically viable. Since equipment and equipment were not produced in Latin America, the course for import substitution until the 1960s. It can be called quite justified. The problem of this region was that the governments of the countries failed to establish intra-regional integration, and after 1960 failed to change the strategy of import substitution for export orientation. Asian tigers began industrialization much later, but immediately adopted a more promising way of industrialization through export-oriented development.

According to many scientists on problems of import dependence, the model of import substitution in the short term creates barriers to the movement of goods and services, reduces the motivation level of business leaders in increasing productivity and reducing production costs, limits the specialization of enterprises, leads to monopolization of the market, and also leads to inefficient use of budgetary funds aimed at the development of import-substituting industries.

However, already since the 1970s the policy of import-substituting industrialization became the subject of sharp criticism, and in the late 1980s – 1990s most countries have developed, abandoned it in favor of restrictive unilateral trade liberalization (Table 7.2).

Table 7.2 Countries that have changed the industrialization strategy on the basis of import substitution for unilateral trade liberalization

Country	Reforms
Argentina	In 1988, tariffs were reduced; import licenses have been abolished, with the exception of article 22; in 1991, a three-tier tariff structure was introduced (0 %, 11 %, 22 %)
Bolivia	In 1985, the trade regime was revised and all quotas were lifted; in April 1990, 2 basic tariff rates were introduced: 5 % for industrial goods and 5 % for other goods
Brazil	Major trade reforms began in March 1990 to replace all quotas with tariffs; average tariff rates were reduced from 37 % to 25 % in 1990 and to 14 % in 1994
Chile	From 1973, all tariffs were reduced and a total tariff of 10 % was introduced for all goods except automobiles; the tariff was increased to 15 % after the economic crisis of the early 1980s
Ghana	Import licensing has become more liberal and a single tariff has been set for most imported goods
Indonesia	Trade reforms began in 1986; by mid-1988, only 20 % of import were subject to special licensing
Jamaica	Quotas were removed and tariffs reduced to 20 and 30 % for most goods
Mexico	By 1988, tariffs were reduced by an average of 11 % at a maximum tariff rate of 20 %
Morocco	A significant weakening of protectionism has occurred since 1983; maximum tariffs were reduced from 400 % to 45 %
Nigeria	Trade liberalization began in 1986; import licensing and tariffs have been significantly reduced
Pakistan	Reforms began in 1986 to replace non-tariff regulation with tariff regulation; maximum tariffs were reduced from 22.5 % to 12.5 %
Peru	Reforms began in 1990; quotas were removed and tariffs were simplified to three rates (15 %, 25 %, 50 %); in 1991, the top rate was reduced to 25 %
Senegal	In 1986 – 1988, most quotas were removed and some tariffs were reduced
Tunisia	By mid-1990, import licensing was canceled for most import items
Turkey	Since 1990, quotas and some non-tariff trade barriers have been significantly reduced
Venezuela	Comprehensive import liberalization began in 1989; most import bans were lifted and tariffs reduced from the maximum level of 80 % to 50 %

Source: built by the author according to [22; 31]

When setting trade barriers, it should be borne in mind that according to WTO rules, unreasonable protectionist measures may lead to the application of sanctions. The affected member country of the WTO may be allowed to take retaliatory measures or demand compensation for the caused harm. At the same time, if the use of tariff methods is transparent and strictly regulated by the WTO, the use of non-tariff methods is difficult to control, and then creates the ground for abuse and pursuit of the interests of the national economies.

The distribution of non-tariff instruments by the level of import restrictions is presented in Table 7.3. In particular, the ban on the import of hazardous waste is not entirely transparent due to the fact that the introduction of this non-tariff tool requires a special examination to establish the presence of a prohibited substance in the imported goods.

Table 7.3 Distribution of non-tariff instruments of regulation of foreign trade at the level of import restrictions

Import restriction level	Free importation with accompanying documents	Restrictions on the importation of goods for a specific feature	Significant restrictions on the importation of goods	Full import ban
Available tools	– labeling requirements	– technical regulation; – overnment regulation of the import of hazardous wastes; – government regulation; – import of ozone-depleting substances; – phytosanitary control; – sanitary and epidemiological findings; – veterinary control	– import licenses; – certification; – import quota	– banning the import of hazardous waste; – embargo on import into the country of goods

Source: systematized by the author according to [26]

Import statistics show that despite the presence of prohibitions on the importation of any substance or commodity, the import volumes of the relevant products are zero. This may be due both to errors in the statistical reporting and to the too complicated and non-transparent procedure for determining the presence of a prohibited substance in the composition of the imported goods.

It should be noted that many of the advantages of protectionist policies are abstract in nature and may be disadvantages under specific circumstances. For example, when applying protectionist measures, the number of jobs in import-substituting industries protected from foreign competition is preserved or even increases, but decreases in export production. That is why in the United States, the American Federation of Labor and the Congress of Industrial Unions, whose members are primarily employees of import-substituting industries – steel and others who feel the most intense competition from import than the economy as a whole.

One of the consequences of the globalization of the world economy, in the process of which the openness of national economies is growing, is the relative leveling of the conditions of competition in the domestic market of the country. The governments of most countries of the world, following the rules of the WTO, provide foreign business on their territory most favored nation or national treatment. As a result, in the markets of individual countries or their groupings, national and foreign firms, international companies are in almost equal conditions of economic activity [1, p. 29–30].

In the conditions of foreign trade openness, a mandatory requirement for economic subjects of the market is to ensure high competitiveness of products. To be competitive in such conditions means to ensure consumer, price and quality characteristics of a product or service that are comparable with the world level, regardless of which market they are provided for: internal or external.

Summarizing the above, it should be noted that the development of the theory of import regulation has passed a long stage of development from the school of early mercantilism to modern economic theories, developing ideas about the determinants and consequences of regulating the import of goods. The development of the world economy over the last decades is characterized by a deepening internationalization of economic relations, manifested in the increasing interconnection and interdependence of national economies, a qualitative change in the nature of trade and economic relations of countries, the emergence of new forms of international trade and its regulation methods, in particular the development of the practice of using non-tariff regulation tools means of protecting the domestic market from foreign competition.

As a result of the implementation of the liberalization policies of the WTO, there is a constant development of the system for regulating the international movement of goods: the variety of trading instruments is growing and the rules for their application are becoming more complex. At the same time, the organization's work is gradually shifting its focus towards the service sector, and more attention is paid to the movement of capital and technology. All these changes primarily meet the interests of developed countries, since they create more favorable conditions for trade in capital-intensive goods. States that do not have a competitive advantage in the field of high technology can't fully realize all the benefits of participation in international trade.

Disputed and controversial questions remain about the effects of import on the development of the national economy, which, the study showed, should be considered in accordance with short-term and medium-term consequences, taking into account such factors as the level of technological and economic development of the importing country, type of market environment, institutional factors and type of products imported (for intermediate and final consumption).

The issue of increasing import dependence and reducing economic security in the context of growing import intervention is increasingly becoming a subject of discussion in the scientific community in many countries. Different views caused the dependence of the real sector of the economy of each country on import, and disagreements relate mainly to the level of this dependence.

According to the SNA methodology [8], intermediate consumption reflects the cost of goods and services used in the production process (excluding consumption of fixed capital). The growth of import of goods for intermediate consumption is due to the processes of production fragmentation, the formation of international production networks and outsourcing.

The active formation of global value chains is an important determinant of economic and structural changes in national economies. Fragmentation of production causes demand for intermediate consumption goods and attracts a wide range of institutional units (institutions, companies, workers, countries) to a more complex and dynamic division of labor. As a result, in countries that are deeply integrated and economically interconnected with other countries, the structure of industry, employment and innovation can change radically.

The first studies of the trade in goods for intermediate consumption were carried out in the 1960s. When in the American economic and legal literature this trade was viewed primarily from the point of view of production relations between parent companies and their foreign affiliates, that is, as an intra-company phenomenon. In Western Europe, where industrial cooperation has acquired much greater development in the form of interaction between different firms, the attention of researchers has focused on national and international interfirm cooperation.

However, for a long time, empirical studies of this phenomenon were limited by the lack of the necessary international statistics that would allow isolating the share of goods for intermediate consumption from total exports and import. In some countries, this allows the statistics of national accounts (SNA) to be made, but often its structure by country differs significantly, making it difficult to compare the volume of international trade flows of products for intermediate consumption. There are limitations in foreign trade statistics since it was introduced in the 1950s. The Standard International Trade Classification (SITC) has not yet separated parts and components into separate product groups even at the 5th level of the product range. After viewing it in 1960, it identified only 800 products, of which 10 were «parts» to be further assembled. The classification revised in 1975 (SITC Rev.2) significantly expanded the list of products identified as parts and components, especially in the section «cars and vehicles», and the SITC Rev.3 version (1985) expanded the list of parts and components even further.

Recent studies [237; 238; 240] convincingly argue that global production networks have become the main driving force behind structural change in many modern economies. Empirical studies show that access to foreign competitively priced intermediate goods is crucial to achieving higher labor

productivity in both industrializing and developing countries (especially in India and China).

For developing countries, the trade, investment, and knowledge flows that underpin global production networks can provide mechanisms for rapid learning, innovation, and industrial upgrading. Global production networks provide greater access to information, open up new markets, and also create opportunities for quick technological knowledge and the acquisition of necessary skills.

According to statistical analysis, the dynamic development of international trade during the last decades, the transnationalization of economies, the internationalization and fragmentation of production and the formation of new production networks have caused a significant increase in the share of goods for intermediate consumption in the total international trade, resulting in the transformation of the traditional trade model in which industrial countries imported raw materials, and exported mostly finished products. In particular, the share of trade in goods for intermediate consumption since 2002 has increased from 38 to 54 %.

Nobel Prize winner Paul Krugman on the transformation of the international trade structure noted: «In 1913, one or another product could be exported only once. Today it can be taken out many times: the goods produced in one country can be formed from components made in other countries, and they, in turn, can be made from a subcomponent made in third countries. As a result, trade in global production of the final product may include several values added at all stages of production» [7, p. 20].

Since the mid-1990s, as a result of the transfer of production abroad, the growth rates of import from developing countries began to grow. The increase in cases of such relocation of production is associated not only with trade liberalization and the revitalization of developing, activities to attract foreign direct investment, but also with changes in corporate strategies of an increasing number of enterprises in developed countries. As a result, enterprises began to react differently to competitive pressure in conditions of high unemployment. Instead of adopting a long-term approach and improving their production technologies and product range through investments in labor productivity and innovation, they began to shift production to developing countries and countries with transitional economies with low wages.

According to the outsourcing hypothesis of R. Finster and A. Hanson, the growth in import of goods for intermediate consumption is due to the formation of large corporations' strategies for locating production in other countries with comparative advantages in the production of specific categories of goods. Companies from industrialized countries transfer the labor-intensive stages of their production processes to countries with an excess of labor and, consequently, low wages. The widespread use of imported resources, in accordance with the outsourcing hypothesis, is associated with the growing foreign direct investment of companies in developed countries.

In the context of increasing globalization processes, the liberalization of international trade and the deepening of imbalances in economic development between the countries of the world, the formation of a model for regulating import will be of particular importance, fully meeting the capabilities and national interests of the state. As a result of the study, it was found that when choosing economic policy, it is advisable to take into account that it promotes openness to sustainable growth to a greater extent than protectionism, because high rates of openness of the economy are not sufficient factors to ensure economic development. A comparative analysis of the approaches of domestic and foreign scientists about the need to regulate import suggests that free trade is a policy that most likely leads to the highest possible level of economic efficiency, but the selective use of tools to protect individual sectors of the economy in practice is aimed at supporting and developing domestic production from foreign competition.

Research into the implementation of conceptual liberal models of globalization has shown that WTO actions often exacerbate contradictions between developed and developing countries. Confrontations arise as a result of the negative effects of liberalization on developing countries, due to lack of investment, new technologies, insufficient institutional development, lack of qualified personnel, agrarian protectionism, tariff «peaks» and tariff escalation in access to markets for non-agricultural products.

The development of the world economy over the last decades is characterized by a deepening internationalization of economic relations, manifested in the increasing interconnection and interdependence of national economies, a qualitative change in the nature of trade and economic relations of countries. In these conditions, the processes of production fragmentation, the formation of new production networks, the deepening of the international division of labor, which led to a significant increase in the share of goods for intermediate consumption in the aggregate volumes of international commodity flows and caused the transformation of the traditional model of trade. With the development and complication of economic relations not only in the sphere of production, but also in the exchange, distribution and use of consumer goods and services, there have been changes in final consumption in the direction of increasing the diversity of consumer goods and services.

Systematization of the effects of import and the determinants that define them testifies to the different views of economists of the implications of import for the development of the national economy, and therefore it is determined that the ambiguity of the results and the identification of bilateral causal connections between import and economic growth require theory and empirical studies to take into account a number of determinants of influence on the effects import (type of products imported level of economic and technological development of the importing country, institutional factors, the type of market environment) in accordance with the time lag detection consequences.

7.2 Assessment of the impact of import on the economy development in Ukraine

Foreign economic activity in Ukraine has always been and remains a priority of state policy, which creates the basis for the development of profitable trade and a favorable investment climate. Foreign trade creates significant opportunities for economic growth, the formation of the country's budget, and the maintenance of the well-being of its citizens. The dynamics and scale of import to Ukraine are determined, on the one hand, by the favorable geographical location of the country, favorable internal socio-economic conditions, developed transport links, and on the other, high competitiveness of foreign products, especially in terms of quality and technical parameters.

Over the past decades, the processes of integration and globalization of the world economy have contributed to the growth of the volume of international trade and economic relations and have necessitated the formation of regulatory systems for the exchange of goods. Under these systems, subject to increased liberalization, the use of certain protectionist tools and methods of regulating international trade is gradually limited, it restricts the state's ability to protect national economic interests in domestic and international commodity markets, and then creates the need for a transformation of their regulatory policies.

According to research, the modern model of Ukraine's interaction with the world market does not correspond to potential development opportunities and long-term economic interests. The key problem of the external sector of the Ukrainian economy remains the disproportionate and inefficient distribution of resources, mainly aimed at short-term income generation, and, as a result, ineffective international specialization, has caused the economy to be dangerous and extremely highly dependent on the situation on world commodity and financial markets, causing a high level of vulnerability for macroeconomic stability [9, p. 345 – 367].

The preservation in the economy of Ukraine for a long period (2005 – 2014) the outpacing rates of growth in import (as compared with exports) has formed a steady trend towards an increase in the negative balance of foreign trade. The critical growth dynamics of import compared to exports indicates the presence of significant imbalances in the structure of foreign trade turnover and in the overall release of goods and services. The negative trend of accelerated growth of import and ahead of them of the dynamics of exports and domestic production was a consequence of the low competitiveness of Ukrainian goods on world markets, caused primarily by the accumulation of significant structural imbalances in the country's economy against the background of a low level of production development and long-term technological backwardness.

At the end of 2016, Ukraine spent on the purchase of imported goods by 180.1 billion UAH more compared to the proceeds from exports (Table 7.4).

The gap between exports and import of all in 2016 grew 5.8 times compared to 2010. The growth of the trade balance is largely due to the energy dependence of Ukraine and the unfavorable situation on the foreign markets for metallurgical and chemical products, in which Ukraine occupies a certain niche, but import volumes are significantly increasing consumer products.

Table 7.4 Dynamics of foreign trade of Ukraine for 2000 – 2016, in basic prices

Indicator	2000	2005	2008	2009	2010	2011	2012	2013	2014	2015	2016
Export of goods and services	106.2	227.3	444.9	423.6	549.4	708.0	691.4	653.2	771.1	1045.9	1175.9
Import of goods and services	97.6	223.6	520.6	438.9	580.9	788.9	806.0	778.1	826.7	1083.4	1356
Balance	8.6	3.7	-75.7	-15.3	-31.6	-80.9	-114.6	-125.0	-55.6	-37.5	-180.1
Import export coverage ratio	1.09	1.02	0.85	0.97	0.95	0.9	0.86	0.84	0.93	0.97	0.87
Export quota, %	62.75	51.52	47.56	46.02	50.41	54.01	50.84	46.19	48.59	52.60	49.30
Import quota, %	57.41	50.74	55.54	47.95	53.69	60.58	59.23	54.73	52.09	54.48	56.85

Source: calculated by the author according to [4]

The consequences of the impact of import on the national economy are the subject of controversial views in world theory and practice. Import contributes to meeting the needs for goods that are not produced in the country, or are produced in insufficient quantities, thereby ensuring active saturation of the domestic market and saving social labor, increasing employment in trade and related fields, raising standards of production and personal consumption by acquiring goods and technology, revenue growth in the state budget. At the same time, at a certain stage of economic development in conditions of low competitiveness of domestic production, import lead to an irrational increase in the share of foreign products in domestic consumption, which is accompanied by a decrease in employment in material production, deterioration in the financial condition of local enterprises and even bankruptcy.

The development of the Ukrainian economy in 2000 – 2013 was characterized by the instability of macroeconomic development and the ultra-high volatility of its trajectory. The annual GDP growth rates in the pre-crisis period (2000 – 2007) fluctuated from 2.7 to 12.1 %, and under the influence

of the crisis, they declined in 2009 up to 14.8 % compared with such a large-scale contraction of the Ukrainian economy, the pace of its recovery in 2010. And 2011 was insignificant and amounted to respectively – 4.1 % and 5.2 %, in 2012 – only 0.2 %, and in 2013 – there was no growth at all. In 2016, according to the national accounts of Ukraine, GDP growth was 2.4 %, and in 2017 – 2.5 %. Taking into account the modern dynamics of development of Ukraine, it can be concluded that it is inertial in nature and lacks essential systemic and structural shifts in production, foreign trade and investment activities oriented towards achieving strategic goals that are essential for sustainable growth. This is what causes the significant vulnerability of the Ukrainian economy in the context of global changes in conjunct world market and the slow recovery dynamics.

The highest bursts of global demand for Ukrainian-made goods were observed in 2000 and 2004. It was a powerful positive «external shock» caused by the acceleration of the global economy 2000 that led to the withdrawal of the Ukrainian economy after a long transformational crisis on the growth trajectory, and a surge in foreign demand in 2004 provided achieving the highest level of GDP growth in the period of its rise. So, with real GDP growth in Ukraine in 2000 at 5.9 %, the export of Ukrainian goods and services potentially provided almost double the growth of the national economy by 11.7 %, and in 2004 its contribution is almost equal to the overall GDP growth rate and amounted to 12.2 %.

But significant reductions in external demand in 2005 – 2006 restrained economic development, and a powerful reduction in its volume in 2009. It was one of the most significant factors that led to a deep fall in GDP in Ukraine. Due to the collapse of export deliveries in 2005, GDP growth compared with the previous year decreased by 7.7 %, and in 2009 – by 10.4 %, which accounted for 70.1 % of the overall decline in the domestic economy. It should be noted that 2009 was the only year in the period under review, when a decrease in import not only fully compensated for losses from export activities, but also reduced the negative impact of a contraction in domestic demand. In 2010 – 2011, external demand had a positive impact on the economic development of Ukraine, but in terms of growth and importance of influence on the macroeconomic dynamics, it lagged behind the development of domestic.

At the same time, the main problems in the development of the domestic economy are not in the ratio between external and domestic demand, but in the unpromising structure of Ukrainian exports, focused mainly on the markets for raw materials and low-technology products, which are not constant either in terms of capacity or prices, and inability of domestic production to meet the growing needs of domestic demand with goods with a high level of competitiveness in price and quality.

The positive impact of expanding domestic demand on general economic dynamics is largely hampered by its propensity to import. So, if to

compare the dynamics of domestic demand, domestic production and import, then it is possible to say that the development of the domestic market is mainly supported by import, and not by our own production. Since 2003, the dynamics of import exceeds (except for 2006) the growth rate of domestic production. The largest gap in these indicators was observed in 2007 and especially in 2008, when the increase in gross output was reduced to 0.5 %, and the growth rate of import against the background of high dynamics of previous years increased by another 17 %.

In 2009, there was a rapid decline in Ukrainian production and even more powerful curtailing import. With the restoration of the positive dynamics of economic development, the outpacing (in comparison with the development of domestic production) dynamics of import of goods and services reappeared.

Direct expansion of domestic demand is significantly hampered by its high propensity to import. Ukrainian demand for industrial products as a whole is deformed in the direction of the import component, which share in the domestic market of Ukraine is constantly growing. This is especially true for the products of those industries whose market elasticity largely depends not on price, but on technological competitiveness, primarily engineering.

Against the background of expanding the consumer component, the contribution of investment demand to the growth of the economy is extremely insufficient. The investment climate (due to ultra-high level of corruption, bureaucratic procedures and lack of an effective investment protection system), low incomes of most enterprises in the real economy, high interest rates and limited credit resources led to stagnation of investment demand are not attractive for external investors.

In 2013, the volume of investment demand was only 55 % of the 2008 level, and this is under conditions when the depreciation of fixed capital has already far exceeded the critical level, and the production base needs a radical modernization and development of modern high-tech industries.

In the structure of merchandise import (Table 7.5), there is a tendency towards an increase in import of food products and agricultural raw materials (by 3.2 pp), products of the chemical industry (by 3.0 pp). The share of cars, vehicles and equipment in 2013 was 25.2 %. With a sufficiently high proportion of machines, problems with technological modernization should not be. However, more than half of imported machinery and equipment are consumer durable goods (automobiles, household electrical appliances and electronics), and significantly less are investment products. This means that the renewal of technological potential was carried out mainly with the help of domestic equipment, which can hardly be called advanced.

In the geographical structure of import, the share of CIS countries decreased from 57.54 % in 2000 up to 23.14 % in 2017. But the share of European countries, in particular the EU, has grown from 29 % in 2000 up to 41.93 % in 2017.

Table 7.5 Commodity structure of import of Ukraine for 2003–2017, %

UCG- FEA code	Commodity group	2003	2007	2008	2009	2010	2013	2014	2015	2016	2017
1–24	Groceries and agricultural raw materials	9.5	6.7	7.8	10.8	9.4	10.6	11.2	9.4	9.9	8.7
25–27	Mineral products	36.8	28.4	29.7	34.5	34.8	29.1	29.5	31.2	21.6	25.2
28–40	Chemical industry products	12.2	14.5	13.2	17.4	16.6	16.9	19.2	20.4	14.3	13.2
41–43	Tanning raw materials, furs and products	0.3	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.4	0.4
44–49	Wood and pulp and paper products	4.1	3.2	2.8	3.6	3.3	3.0	2.9	2.7	2.8	2.4
50–67	Textiles, textile products, shoes	4.1	2.8	3.1	3.7	4	4.2	4.3	4.5	3.9	4
72–83	Metals and products	5.2	8.0	7.7	6.0	6.9	6.5	6.6	5.3	5.9	6.1
84–90	Machines, vehicles and equipment	23.2	32.6	31.3	19.9	21	25.2	20.9	22.6	29.1	30
68–71, 90–99	Other goods	4.6	3.6	4.2	3.9	3.7	3.9	5.0	3.6	12.1	10

Source: calculated by the author according to [4]

Table 7.6 Geographic structure of the import of goods to Ukraine in 2000–2017, %

Year	CIS countries	Other countries	Europe	EU countries (28)	Asia	Africa	America	Australia and Oceania
2000	57.54	42.46	30.89	29.00	6.04	0.98	4.17	0.39
2001	55.92	44.08	31.58	30.14	6.23	1.26	4.70	0.32
2002	52.73	47.27	33.88	32.50	6.99	1.04	5.05	0.30
2003	49.82	50.18	35.47	34.24	8.74	1.08	4.66	0.23
2004	52.38	47.62	34.10	32.99	8.94	0.96	3.33	0.28
2005	47.01	52.99	35.05	33.79	12.97	1.18	3.50	0.29
2006	44.66	55.34	37.31	36.04	13.64	0.92	3.25	0.22
2008	39.02	60.98	35.63	33.82	18.12	1.82	4.90	0.50
2009	43.34	56.66	35.73	33.98	14.39	1.36	4.84	0.33
2010	43.95	56.05	32.93	31.53	16.50	1.44	4.74	0.43
2011	45.05	54.95	32.76	31.24	16.08	1.14	4.74	0.23
2012	40.72	59.28	32.54	30.97	20.23	1.00	5.25	0.23
2013	36.29	63.71	37.11	35.13	19.79	0.97	5.64	0.12
2014	31.74	68.26	41.12	38.71	19.93	1.25	5.55	0.33
2015	27.95	72.05	44.42	40.86	19.29	1.60	6.23	0.45
2016	21.82	78.18	47.06	43.67	22.73	1.41	6.61	0.31
2017	23.14	76.86	46.21	41.93	21.53	1.45	7.29	0.31

Source: calculated by the author according to [4]

In the structure of the use of import in 2003 – 2016, the share of intermediate consumption goods fluctuated on average from 61.3 % to 69.8 %, which indicates a significant level of import dependence of the Ukrainian industry on imported goods, in particular, in fuel and energy products (Table 7.7).

Table 7.7 The structure of the use of import in the economy of Ukraine in 2003 – 2016

Year	Intermediate consumption		Final consumption		Gross capital formation		Total import,
	million UAH	%	million UAH	%	million UAH	%	million UAH
2003	100715	68.3	24303	16.5	22507	15.3	147525
2004	129443	69.8	30218	16.3	25657	13.8	185318
2005	139386	62.3	44705	20.0	39464	17.7	223555
2006	169990	63.1	51695	19.2	47515	17.7	269200
2007	223217	61.3	63153	17.3	78003	21.4	364373
2008	325990	62.6	94578	18.2	100020	19.2	520588
2009	271425	61.9	92365	21.0	75043	17.1	438860
2010	395418	68.1	121662	20.9	63864	11.0	580944
2011	530879	67.3	148306	18.8	109716	13.9	788901
2012	533125	66.2	164735	20.5	108144	13.3	806004
2013	505675	65.0	191463	24.6	81005	10.4	778143
2014	556688	67.3	205774	24.9	64302	7.8	826764
2015	705090	65.1	278120	25.7	64302	9.3	100228
2016	827161	61.7	351391	26.2	162563	12.1	1341115

Source: calculated by the author according to [4]

The share of goods for final consumption, where the lion's share is consumed by the household sector, increased from 16.5 % to 24.6 % over the study period, which is an indicator of the import vector in the consumption structure. On the other hand, the share of import in gross accumulation decreased (from 15.3 % to 12.1 %), which is the basis of innovative development and the determinant of modernization changes in the economy of Ukraine. The low share of import of goods in gross accumulation against the backdrop of the failure of domestic science to produce innovative and technologically new products indicates conservatism in industrial policy and production in morally and technically obsolete equipment that does not meet the requirements of scientific and technological progress.

A detailed analysis of the structure of the use of import by type of economic activity (Table 7.8) shows that most are distributed to intermediate and final consumption in various ratios, depending on the characteristics of the formation of costs and the nature of a particular type of activity. Thus, in 2013, this ratio was 57.67 % and 38.80 %, respectively, in agriculture, forestry and fisheries, in the production of food, beverages and tobacco products – 20.59 % and 79.29 %, in production of textile, clothing, leather and leather goods – 12.00 % and 84.13 %.

Table 7.8 The structure of imports to Ukraine by economic activity in 2016, %

Kind of activity	Inter- mediate con- sump- tion	Final consumption			Gross capital formation	
		House- holds	Non- profit organi- zations	General govern- ment	Gross fixed capital formation	Changes in inven- tories
Agriculture, forestry and fisheries	57.67	38.80			3.53	0.00
Extraction of stone and brown coal	100.00					
Extraction of crude oil and natural gas	84.13	7.50		7.64		0.72
Mining of metal ores, other minerals	99.80					0.20
Food production; beverages and tobacco	20.59	79.29	0.10	0.02		
Production of textile, clothing, leather and other materials	12.00	84.13	0.48	0.64		2.74
Production of wood, paper; printing and reproduction	91.69	7.64		0.01		0.66
Production of coke and coke products	100.00					
Production of chemicals and chemical products	93.58	4.96		0.02		1.45
Production of basic pharmaceutical products	47.10	48.26	0.77	0.09		3.77
Production of rubber and plastic products	91.46	4.32		0.06		4.16
Production of other non-metallic mineral products	86.98	10.79		0.00		2.23
Metallurgical production	99.83	0.01				0.16
Production of finished metal products, except machinery and equipment	83.06	2.15		0.00	14.58	0.21
Production of computers, electronic and optical products	38.75	18.33		0.43	32.48	10.01
Electrical equipment production	26.24	24.39			48.06	1.31
Production of machinery and equipment not classified in other groups	51.16	0.23		0.02	41.57	7.02
Production of motor vehicles, trailers and semi-trailers	35.78	20.67		1.15	41.93	0.46
Vehicle production	3.34	11.08			85.58	
Production of furniture, other products; repair and installation of machinery and equipment	24.59	70.53		0.02	4.34	0.37

Source: calculated by the author according to [4]

Final consumption is formed by the following institutional sectors of the economy as households, non-profit organizations serving the household sector and the general government sector. The volume of gross accumulation is formed as due to the accumulation of fixed capital and changes in inventories.

In the post-crisis years, the dependence of the Ukrainian economy on import has changed significantly. If in the pre-crisis years, consumer goods dominated the import structure, now their importance for the Ukrainian economy has decreased significantly, but there is an increase in production dependence on import: import of intermediate consumption goods have increased significantly, the share of import in enterprises' expenditures for raw materials, materials, components and semi-finished products has increased.

The mechanism for enhancing the production dependence of Ukrainian enterprises on import can be explained by the fact that the process is based on the demand for products for the production of which domestic producers need better quality raw materials, materials and components. Given the possibility of competition with imported counterparts or filling a free niche in the market, the Ukrainian company appeals to suppliers with a demand to improve the characteristics of the supplied products or change its product range. If the technological level of direct suppliers is not high enough or in case of their disagreement, the enterprise is forced to purchase high-quality imported raw materials, materials and components to complete the production cycle.

Consequently, the increase in production dependence on import is due to the fact that at one level of the production chain the manufacturer is not ready to respond to the demand with the help of modernization (investment in fixed assets) due to the lack of entrepreneurial initiative or lack of resources. Of course, during periods of strengthening the national currency for Ukrainian enterprises it may be beneficial to use imported goods for intermediate consumption. However, at the same time, the growth of the production dependence of the Ukrainian economy on import is the result not so much of its involvement in global production chains as of insufficient investment activity, refusal to implement modernization projects and an ineffective response to the increase in domestic demand.

Membership in the WTO led to a decrease in tariff restrictions for the import of imported goods, increased competition in the domestic market, which all domestic enterprises are able to withstand. However, WTO membership does not deprive Ukraine by certain tools to protect the domestic market, including:

- tools of customs-tariff regulation, it is advisable to direct in the direction of liberalization of foreign trade, legalization of «shadow» import and protection of national production by introducing, in particular, selective tariff restrictions for those types of economic activity

that may suffer significant losses as a result of the liberalization of foreign trade relations and most affected by import expansion;

- formation of a tariff regulation model, providing for the use of optimal market relations in certain segments of the domestic market with the provision of priority on the presence of domestic producers on it;
- support of priority types of economic activity, applying the latest technologies, produce goods with a high level of added value and are promising in the global technology market;
- state support of enterprises in the acquisition of foreign licenses and technologies, which will allow in a short time to ensure the modernization of domestic production, which is essential for enterprises to enter international markets and acquire technological advantages.

The world food system formed as a result of the WTO's activities is characterized by the following: the uneven distribution of modern technologies and subsidies to support agriculture, limited access to them by developing countries; increased volatility and volatility of the global food market; weak reaction of global agrarian production as a whole to the ratio of supply and demand for the main types of agricultural products; lack of tools and mechanisms to mitigate price spikes and food shortages in selected lean years; deliberate restriction of agricultural production and the degradation of agricultural coal in developing countries that do not possess technical and economic potential sufficient to conduct intensive farming; irrational configuration of the world food market, the state of which is extremely high dependence on production in several agriculturally developed countries (Australia, Canada, Argentina, Brazil) inertia and inadequate response of domestic prices in the food markets of developing countries to the dynamics of world prices.

The opening of the domestic market to foreign competition led to the fact that the share of imported food products increased from 2005–2016 by 6.1 pp and in 2016 amounted to 15.2 %, and non-food, respectively, by 22.0 pp and 64.4 % (Tables 7.9, 7.10).

In the food products markets, it should be noted a powerful strengthening of the import component in such goods as fish and seafood, which share in the domestic market of Ukraine for 2005–2016 increased by 24.6 pp and in 2016 it reached 44.0 %, pasta (by 11.5 pp and 22.7 % in 2016), vegetables (by 7.2 pp and 16.7 % in 2016), fruits, berries, grapes, nuts, watermelons and melons (by 25.6 pp and 59.0 % in 2016), vodka and alcoholic beverages (by 17.2 pp and 23, 2 % in 2013), wines (by 21.8 pp and 36.0 % in 2016).

So, it can be stated that the domestic food industry as a whole provides the growing demand of the population and the situation on the food market does not cause much concern. However, the situation is completely different in the market of non-food products. In this segment of the consumer market, the tendency for an increase in imported products is observed for

most (not only high-tech) commodity items, but also for virtually all types of light industry products.

Table 7.9 The share of imported food products sold through the trading network of enterprises in 2005 – 2016, %

Commodity group	2005	2010	2011	2012	2013	2014	2015	2016
Total	9.1	11.8	12.8	13.7	14.5	14.4	14.8	15.2
Fresh and frozen meat and poultry	3.1	2.9	3.4	4.9	6.4	4.7	7.4	5.8
Smoked, salted meat and sausages	3.1	3.0	3.8	4.0	7.1	5.5	5.5	5.1
Canned food, finished meat products	21.4	7.6	4.2	4.8	7.1	4.9	5.5	6.7
Fish and seafood food	19.4	29.6	31.2	34.0	38.6	39.6	40.2	44.0
Canned food, finished fish products	20.9	26.2	27.6	26.7	29.3	29.9	32.7	32.0
Milk and dairy products	5.5	5.5	5.8	7.4	9.8	6.4	6.5	5.4
Butter	2.5	2.3	1.7	2.8	2.7	2.6	3.1	2.6
Eggs	1.1	0.6	1.6	1.5	1.5	1.4	1.1	1.3
Vegetable oils	5.7	6.7	6.0	6.9	6.6	6.6	6.3	7.6
Margarine	4.2	4.5	3.0	3.4	4.2	2.3	2.4	2.6
Food fats	5.6	4.5	5.2	4.2	23.0	3.1	2.2	6.1
Sugar	1.0	1.2	1.6	1.8	2.0	2.2	2.6	2.0
Confectionery	10.0	9.8	10.4	12.8	12.8	11.4	10.5	11.0
Flour	1.7	2.4	2.8	3.5	3.9	4.6	3.9	4.1
Bakery products (except confectionery)	1.6	0.9	1.5	2.4	2.4	3.1	2.2	2.3
Cereals	7.0	6.5	8.9	9.4	10.1	8.9	7.8	7.4
Pasta products	11.2	20.2	20.7	24.5	24.4	23.6	21.7	22.7
Potatoes	9.1	5.4	9.8	12.3	9.6	9.7	9.8	10.7
Fresh vegetables	9.5	9.4	13.4	22.3	17.0	15.5	16.1	16.7
Fresh fruits, berries, grapes, nuts	33.4	39.2	42.5	51.2	47.5	52.9	55.0	59.0
Canned vegetables	19.2	18.6	19.9	23.0	22.5	24.3	24.4	24.5
Canned fruits and berries	17.1	35.3	39.9	43.7	44.4	42.3	38.6	39.0
Alcoholic beverages – total	7.9	12.6	13.9	15.7	18.2	18.3	19.5	19.5
Vodka and alcoholic beverage products	6.0	11.4	12.9	16.1	18.7	20.3	22.7	23.2
Low alcohol beverages	3.9	5.2	6.0	7.2	7.3	5.6	5.5	6.3
Wines	14.2	21.3	24.6	28.0	30.2	32.2	35.0	36.0
Cognac	15.3	17.7	17.0	17.1	19.4	20.2	19.6	19.0
Sparkling wines (champagne)	6.8	10.8	11.9	12.7	19.2	17.7	20.3	20.6
Beer	4.3	7.8	9.1	9.7	11.5	10.0	9.9	9.5
Tea	35.7	32.8	30.9	30.9	31.1	31.8	30.0	28.2
Coffee	41.9	50.7	54.3	54.4	55.6	55.3	54.9	55.0
Salt	4.8	2.2	1.8	2.4	3.6	7.1	5.8	4.7
Non-alcoholic beverages	13.5	9.3	5.7	6.3	5.6	6.0	7.0	6.1
Mineral waters	6.9	8.2	7.1	7.6	8.0	10.4	9.8	9.5
Tobacco products	6.5	6.9	6.1	5.1	5.9	5.3	6.1	5.4

Source: calculated by the author according to [4]

Table 7.10 The share of imported non-food items sold through the trading network of enterprises in 2005–2016, %

Commodity group	2005	2010	2011	2012	2013	2014	2015	2016
Total	42.4	50.0	52.8	58.1	61.0	60.5	60.7	64.4
Clothes and linen from fabrics	76.5	89.3	89.2	92.3	93.2	94.1	94.3	94.7
Clothing made of leather, fur and other products from them	18.8	88.0	87.2	90.7	93.6	89.3	96.0	97.2
Headgear (except fur and knitwear)	28.3	64.5	68.5	94.5	95.7	97.5	95.7	96.0
Jersey top and linen	83.1	89.6	92.7	90.7	95.0	96.0	95.9	96.2
Hosiery	41.4	61.7	62.3	62.2	59.9	62.0	59.9	62.7
Footwear	90.7	95.8	96.4	97.2	97.7	97.0	96.9	97.1
Perfumery and cosmetic goods	69.5	74.2	74.0	77.3	79.1	79.5	80.2	81.7
Clock	93.8	96.4	96.2	97.1	98.1	50.3	56.9	74.8
Books, newspapers, magazines	12.9	13.0	12.5	11.0	10.2	10.9	11.1	10.5
Paper products, including school and office	27.8	25.1	25.3	25.1	26.6	46.0	46.3	44.8
Computers, peripherals, software	77.5	93.9	97.0	98.8	99.1	99.4	99.2	99.3
Audio and video equipment, including telecommunications equipment	96.4	95.2	97.5	95.3	96.4	99.7	99.3	99.8
Photographic, optical and accurate equipment	96.3	94.5	96.1	98.8	98.3	99.4	99.5	98.6
Games and toys	60.0	66.3	70.0	76.8	79.5	83.3	83.4	85.2
Other cultural goods	94.8	73.8	72.3	71.2	64.5	60.0	55.4	57.6
Motorcycles	60.0	99.4	99.2	99.8	99.4	94.4	95.1	95.8
Cars and auto products	76.9	81.4	85.4	87.4	89.3	89.5	92.1	94.0
Sports, travel equipment and gear	56.7	75.1	76.3	78.4	79.4	78.2	78.8	77.2
Furniture	26.2	43.3	45.0	45.8	50.1	55.6	57.9	55.2
Carpets, flooring and walls	90.1	52.5	51.9	53.9	54.4	54.4	53.8	54.1
Cookware and Dining Sets	57.4	67.2	69.6	75.4	75.2	67.8	68.8	69.7
Household electrical goods	91.9	88.6	89.0	89.3	88.5	88.1	88.8	87.5
Building materials and iron products	34.9	35.6	33.1	37.9	41.0	44.4	44.8	43.4
Means for washing, cleaning and care	45.4	56.6	58.9	61.5	62.7	63.7	64.3	65.8
Materials and equipment for working at home	41.2	57.5	59.8	60.4	60.4	58.1	55.1	56.0
Pharmaceutical goods	43.5	47.9	49.2	49.2	49.2	49.1	49.6	49.7
Dressing materials	31.6	43.6	47.1	42.8	45.3	55.6	56.0	56.4
Optics	64.9	67.3	67.6	70.9	75.7	74.0	74.4	75.7
Motor gasoline	3.5	16.6	21.0	31.3	36.4	40.9	38.3	40.9

Source: calculated by the author according to [4]

Domestic production is generally not able to produce products that are competitive in quality, and consequently, a situation has arisen where, due to imported products, 94.7 % of domestic demand is satisfied for clothes and underwear from fabrics, 96.0 % for headaddresses, 97.1 % – in shoes.

At the same time, the expansion of public demand for everyday goods is an objective phenomenon and should work to develop our own, and no other countries. The dominant factor of insignificant activation of demand for consumer goods of domestic production during 2009–2010 there was an increase in their price competitiveness under the influence of the devaluation of the national monetary unit, accompanied by a corresponding increase in prices for goods of foreign origin. However, as the results of the study showed, the share of sales of domestically produced goods in subsequent periods declined due to low rates of development of industrial production in the consumer market of Ukraine.

Creating favorable institutional conditions for increasing domestic production in the domestic market as a direction of state policy provides for the solution of such tasks as a fundamental change in the investment climate (among government policy measures to solve this problem, priority should be given to reducing taxes, increasing government guarantees the exportation, if necessary of foreign investment, the cessation of the practice of unlawful viewing in the judicial the order of existing investment agreements between edema are removable and foreign investors, interference of government representatives in business activities with the aim of personal enrichment) improving the quality of domestic products (can be successfully implemented only when consumers are not out of patriotic feelings, but pragmatically give preference to goods, produced in Ukraine).

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Considering the high dollarization level in the Ukrainian economy, the structure and rate of change in the size of the domestic market for goods substantially depend on the dynamics of the hryvnia exchange rate. It affects the state of the domestic market through a change in aggregate demand by redistributing income and assets in favor of exporters, as well as other economic agents, and changes in the purchasing power of foreign exchange assets. The devaluation of the hryvnia frees part of the domestic market from imported goods. However, the ratio between the share of domestically produced goods and imported counterparts is rather volatile and may subsequently be crowded out by importers of national producers.

It should be noted that to increase the presence of domestic producers in the domestic market by increasing the price advantages of domestic products only through the devaluation of the hryvnia is impractical and inefficient. This can be proved by the example of Ukraine, where the hryvnia was devalued twice, which did not lead to an increase in the supply of domestic products in the domestic market. For example, throughout 1998 – 1999, hryvnia exchange rate against the US dollar decreased by almost 274 %. The effect of more than doubled price advantages, received domestic goods, had almost no effect on the structure of commodity production in Ukraine, which was demonstrated by the consumer goods market.

Therefore, in our opinion, Ukraine needs to take advantage of the experience of developed countries and on its basis build an appropriate institutional environment and acquire its own experience in applying emergency measures to protect the domestic market. Combined with an active policy of stimulating domestic producers, protection measures will create conditions for effective import substitution in relevant product markets and for improving the country's trade balance.

It is important that the protection of the internal market is provided for by a number of WTO agreements, which, on the one hand, contain restrictions on their use, on the other hand, provide countries, with the correct understanding of these agreements, with sufficient tools to realize their potential. At the same time, revealing facts of dumping, illegitimate subsidies implies the need to involve in the investigations materials authoritative expert opinions (including on prices in the domestic market of the exporting country, on the basis of which, in fact, the fact of dumping falls) foreign countries on separate codes. At the same time, obtaining this information for most countries is chargeable, so Ukrainian companies that suffer from dumping, subsidized and growing import often complain about the lack of adequate funds.

In accordance with Annex I-A of the Association Agreement between Ukraine and the EU [10], the schedule for the abolition of import duties on the part of Ukraine provides for the establishment of transitional periods for many codes of the commodity nomenclature. In addition, tariff quotas are established for certain codes 02 and 17 of the commodity nomenclature groups, in particular pork, poultry and sugar, that is, they can be imported into Ukraine at a reduced import duty rate under these quotas (Table 7.11).

Changes in the trade regime in accordance with the Association Agreement are expressed in a gradual reduction in import duties for goods produced in the EU (Table 7.12). The largest decrease in import duties will occur in light industry, in particular, in the clothing production, other non-metallic mineral products, the food industry, and the furniture production. At the same time, Ukraine will keep low import duty rates on certain engineering goods.

Table 7.11 Indicative set of tariff quotas for import to Ukraine

Production	Goods classification	Quantity
Pork meat	0203.11. (10 – 90)	10.000 tons/year expressed in net weight +
	0203.12. (11 – 19 – 90)	10.000 tons/year expressed in net weight (for UCGFEA codes 0203.11. (10)
	0203.19. (11 – 13 – 15 – 55 – 59 – 90)	0203.12. (19)
	0203.21. (10 – 90)	0203.19. (11 – 15 – 59)
	0203.22. (11 – 19 – 90)	0203.21. (10)
Poultry and semi-finished poultry products	0203.29. (11 – 13 – 15 – 55 – 59 – 90)	0203.22. (19)
		0203.29. (11 – 15 – 59))
	0207.12. (10 – 90)	8.000 tons/year expressed in net weight with the possibility of a gradual increase over
	0207.14. (10 – 20 – 30 – 40 – 50 – 60 – 70 – 91 – 99)	5 years to 10.000 tons/year expressed in net weight +
	0207.26. (10 – 20 – 30 – 40 – 50 – 60 – 70 – 80 – 99)	10.000 tons/year expressed in net weight (for UCGFEA code 0207.12. (10 – 90))
	0207.27. (10 – 20 – 30 – 40 – 50 – 60 – 70 – 80 – 91 – 99)	
Sugar	0207.35. (11 – 15 – 21 – 23 – 25 – 31 – 41 – 61 – 63 – 71 – 79 – 99)	
	0207.36. (31 – 41 – 61 – 63 – 71 – 79 – 89 – 90)	
	1701.11. (10 – 90) 1	30.000 tons/year expressed in net weight with a gradual increase over 5 years to
	701.12. (10 – 90)	40.000 tons/year expressed in net weight
	1701.91. (00)	
	1701.99. (10 – 90)	

Source: built by the author on the basis of [10]

Table 7.12 Dynamics of weighted rates of import duties in Ukraine for the EU countries for certain types of economic activity, %

Type of activity	2013	2014	2015	2016	2017	2018
Agriculture and related services	6.6	4.6	2.3	0.7	0.2	0.1
Forestry and related services	1.7	0.0	0.0	0.0	0.0	0.0
Fisheries	2.5	1.8	0.9	0.3	0.0	0.0
Food, beverage and tobacco production	9.7	4.9	1.7	0.2	0.0	0.0
Light industry	9.8	1.6	0.3	0.0	0.0	0.0
Chemical and petrochemical industry	3.4	0.8	0.1	0.0	0.0	0.0
Production of other non-metallic mineral products	6.5	4.6	2.3	0.7	0.2	0.1
Metallurgy	2.0	1.4	0.7	0.2	0.1	0.0
Engineering	3.4	2.4	1.2	0.6	0.3	0.2

Source: built by the author on the basis of [6]

Of course, there is a danger of weakening the competitive position of domestic producers, in particular meat and meat products, dairy products, vegetables and fruits as a result of growth in import from the EU. According to the calculations of the Institute of Economics and Forecasting, the total cost of modernizing livestock and vegetable production in accordance with EU standards is estimated at 900 million EUR for 10 years of implementation of the Association Agreement [6, p. 45]. The probability of an increase in the domestic market of competing import, in particular passenger cars, tractors and combine harvesters, increases. However, the Agreement provides for the gradual abolition of tariff regulation measures when importing cars to Ukraine. In particular, Appendix I-A with the agreement «Tariff Schedule of Ukraine» provides for the vast majority of commodity items 8703 the use of a 10 % import duty rate with a transition period of 7 – 10 years. However p. 44 of the Agreement provides for the application of a special additional duty associated with the import, if necessary, within 15 years from the date of entry into force. However, the total rate of import and special duties when importing cars should not exceed 10 % during this period. The possibility of introducing a special duty depends on the share of cars with the EU in the domestic market of Ukraine and subject to significant damage to the national industry producing such goods. Certainly, from the point of view of households, the installation of additional import duties on passenger cars in practice will mean a narrowing of the range and a rise in prices for the period of the specified measures. For the state, instead of setting such a duty at a level equal to the current import duty, it can lead to a reduction in import, which in turn will reduce the potential budget revenues. At the same time, it is necessary to take into account the elasticity of demand for European-made cars as compared to domestic-made cars and cars from other countries of the world. With low elasticity of demand, it is more likely that the existing dynamics of import will be preserved without acceleration, which would be due to trade liberalization [6, p. 49].

The textile industry also requires special attention, because immediately after the EU Agreement entered into force, the import duty on textiles and clothing was reset to zero, and Ukraine is granted a transition period to reduce to 0.1 % when importing textiles and up to 0.2 % of customs value when importing clothing. According to experts, such a transitional period will allow Ukrainian producers to prepare for foreign competition. However, the risk lies in significant volumes of clothing import that were in use («second-hand»), which share in import from the EU is more than 80 %. These risks are planned to be offset by introducing special input prices of euro per kilogram of net weight. The input price will be determined 30 % of the average customs value of clothing for the previous year in accordance with the UCGFEA codes listed in the Agreement. Ukraine pledged to publish the corresponding annual prices. The proposed mechanisms for importing used clothing .They are generally favorable for the development

of domestic producers by protecting the positions of the national light industry and reducing the price competitiveness of used clothing. However, the results of the IEF research show that the most competitors of Ukrainian clothing manufacturers are not importers of used clothing, but companies that import cheap clothing from Asia, as well as smuggling [6, p. 53]. This suggests that government measures to regulate the import of used clothing without on the impact on the development of the domestic production of clothing. But the abolition of duties on shoes most likely will not lead to negative consequences on domestic shoe enterprises, since in recent years up to 90 % of shoes from the EU were imported into Ukraine according to shadow schemes [6, p. 54].

Ukraine and the EU have confirmed the possibility of applying anti-dumping and countervailing measures in mutual trade that will allow Ukrainian producers to initiate appropriate investigations in case of unfair competition from producers from the EU. However, a similar right applies to the EU market on the part of Ukrainian manufacturers.

In the sphere of technical regulation, which is reflected in the part of technical cooperation of the Association Agreement by the parties, it is planned to strengthen interaction in the sphere of regulatory issues, enhance relations with relevant organizations specializing in metrology, standardization, market supervision, accreditation and certification. In accordance with the commitments made by Ukraine, it is necessary to carry out the necessary administrative and institutional reforms in this area, as well as to gradually abolish national standards that are contrary to EU standards. Along with the undoubted advantages of this process in the form of a final transition to international technical regulations, this will create additional costs for businesses to adapt to new conditions. Implementation of a new system of technical regulation predetermines not only increased security, but also to provide better institutional protection of consumer rights. A high level of security means that products that do not meet the requirements will be forced out of the market regardless of where they were manufactured: in Ukraine or in the EU. The above will determine the need for Ukrainian enterprises to improve the quality component of competitiveness in order to resist competition from import.

Thus, a high dependence on import hinders the sustainable development of the economy and makes it dependent on external conditions. This is especially dangerous for the national economy, since domestic exports are primarily of raw materials. The domination of import hinders the development of domestic production, stimulates the flow of resources from production to trade. The economy is characterized by significant volumes of commodity exports, relatively small volumes of domestic production and import of investment and consumer goods. The integral components of this model of the economy are low rates of economic growth, weak innovation activity, relatively high unemployment and low living standards.

Liberalization of trade in services is reflected in: implementation of the principle of symmetrical regulation for the creation of subsidiaries, branches and representative offices of legal entities in the EU member states and Ukraine; simplifying cross-border provision of services; e-commerce collaboration; simplification of trade in computer, postal, courier, telecommunication, financial and transport services. For the domestic economy, such liberalization means the possibility of entering the European markets, but it must be borne in mind that the domestic market of Ukraine will be forced to resist foreign competition.

Section IV «Trade and trade-related issues» is devoted to services in the Association Agreement between Ukraine and the EU [10]. According to the provisions of the Agreement, there should be a gradual liberalization of trade in most services, with the exception of the extraction and processing of nuclear materials, weapons and ammunition, international air travel, and audiovisual services.

In terms of the supply of cross-border services, in accordance with the terms of the Agreement, equal access to national markets will be ensured, which will lead to increased competition between providers of such services, which will benefit households by raising the level of quality and reducing the cost of end-user service.

According to the terms of the Agreement, Ukraine, having assumed obligations to liberalize the markets of computer services, postal and courier and telecommunication services, will be able to create a favorable competitive environment for the operation of enterprises providing such services, as well as to simplify their cross-border movement. Compliance with the provisions of the Agreement will require the public sector to improve regulatory policies in the markets for the above types of services. In exchange, the state will be able to receive a certain financial resource from the sale of radio frequency and numbering resources, as well as receive benefits from the dynamic development of these sectors in the form of employment growth and tax revenues. At the same time, domestic regulators need to establish effective mechanisms and procedures for interaction and exchange of experience with relevant European regulators. The provisions of the Agreement related to the regulation of temporary presence of individuals for commercial purposes, aimed at facilitating market access and simplifying the movement of hired personnel for companies with branches or representative offices in Ukraine or the EU.

The gradual liberalization of the markets for international maritime transport as well as road, rail and inland water transport will create conditions for increasing the level of competition in these markets, all other things being the same, will lead to an increase in the quality of the provision of relevant services and an increase in investment in the development of appropriate infrastructure Ukraine, given the existence of a transport corridor connecting the EU and Asia.

Thus, it can be argued that the opening of the Ukrainian market of services for business will mean increased competition and at the same time simplify entry into the markets of EU member states. Cooperation in the regulation of international trade at the national and international levels is a prerequisite for the stable development of the service sector.

7.3 Directions for reducing the import dependence of the Ukrainian economy

One of the ways to improve the regulatory policy regarding the access of imported goods to Ukraine is increasing the protection of certain sectors of the economy with non-tariff regulation tools. The results of the analysis of import dependence, import intensity and export orientation of the studied economic activities allowed identifying those sectors of the economy that are characterized by the largest volumes of import consumption and most import dependent on goods for intermediate consumption, as well as identify industries with a high proportion of imported components in exports.

State measures in the field of import regulation, taking into account the dependence of industry on foreign goods for intermediate consumption, should, in our opinion, be consistent with the regulatory policy in the field of export and in accordance with the directions of development of the national economy, as well as the needs and demands of world markets. First, it is necessary to strive for greater diversification, developing progressive production and finding new markets. Secondly, it is important to modernize traditional industries on the basis of historical, social, geopolitical, natural and other advantages. When implementing a system of measures within the framework of the integration of the Ukrainian economy into the world economy, it is advisable to combine pragmatic openness with limited protectionism.

In order to increase the competitiveness of Ukrainian commodity producers and protect their economic interests, the Ukrainian economy in the field of customs tariff regulation should be aimed at: strengthening the regulatory function and further improving the Common Customs Tariff while maintaining the fiscal function of customs tariff regulation with economic feasibility; a combination of the development of long-term programs for changing the customs tariff rates with the planning of large-scale economic projects for the implementation of sectoral strategies to improve competitiveness, the development of new industries, the implementation of medium-term action plans for the countries trading partners of Ukraine; creating opportunities for comprehensive protection of national economic interests in foreign trade through the use of non-tariff policy instruments; the development of an effective mechanism to reduce the cost of import (including those associated with the payment of duties and VAT on import, the cost of customs procedures) and/or the operational leasing of specialized

equipment is not carried out in Ukraine, and energy-saving technologies to modernize domestic production; preventing abuses in the implementation of import operations and the need to identify product lines that will fall into the category of «investment import» (it should be borne in mind that, as a result of this policy, Ukraine imported equipment and equipment not of the last generation, but purchased in the secondary market, which will fix the technological gap and will not allow to reach the expected competitiveness level); improvement and provision of an integrated nature of the export support system, first of all, high-tech goods through the use of customs-tariff, financial and organizational-economic tools to promote the export of goods, as well as the search for new forms and methods to stimulate the development of export-oriented industries and the promotion of domestic goods to foreign markets.

According to the commitments made by Ukraine in connection with accession to the WTO, the ability of the state to influence the state of the domestic commodity market is significantly limited. Considering one of the key principles of the internal market functioning – non-discrimination of imported goods regarding domestic production, in the process of forming and implementing measures aimed at protecting the internal market of Ukraine, it is necessary to consider a number of the following factors:

- complexity of the process of countering import expansion in order to protect the domestic market;
- limitations on subsidizing national producers (subsidies for import substitution and targeted subsidies);
- limited possibilities of price regulation in the domestic market (minimum import prices, maximum prices of domestic producers);
- narrow possibilities of tools and support measures for agricultural enterprises.

Maintaining the required level of investment attractiveness of domestic production should be ensured by reducing costs as a result of minimizing customs barriers, burdensome customs and administrative procedures for obtaining international investment commodity loans (optimal for purchasing expensive equipment, components made to order by foreign companies) and direct capital investment (transcontinental or transnational). Attracting foreign capital to high-tech sectors should also be carried out by increasing the degree of escalation of the customs tariff, reducing or zeroing the import duty on components required for the production of competitive finished products in Ukraine.

In particular, from the point of view of business, the main problems faced by entrepreneurs when crossing the border:

- an excessive number of documents and authorization requirements, their inconsistency;
- long queues at state institutions, lengthy checks at the border, problems with coordinating the working hours of the customs of neighboring countries;

- problems of corruption;
- low level of awareness of both civil servants and market operators regarding the current rules and procedures;
- limited laboratory capacity, which causes long delays in product inspection;
- low level of automation of procedures.

The effectiveness of measures to simplify trade procedures in Ukraine (Fig. 7.1) on indicators such as the participation of business communities, appeals procedures, formalities-automation, cooperation of departments at the border needs to be simplified in order to facilitate the passage of goods at the border and improve the place of Ukraine in world rankings of doing business.

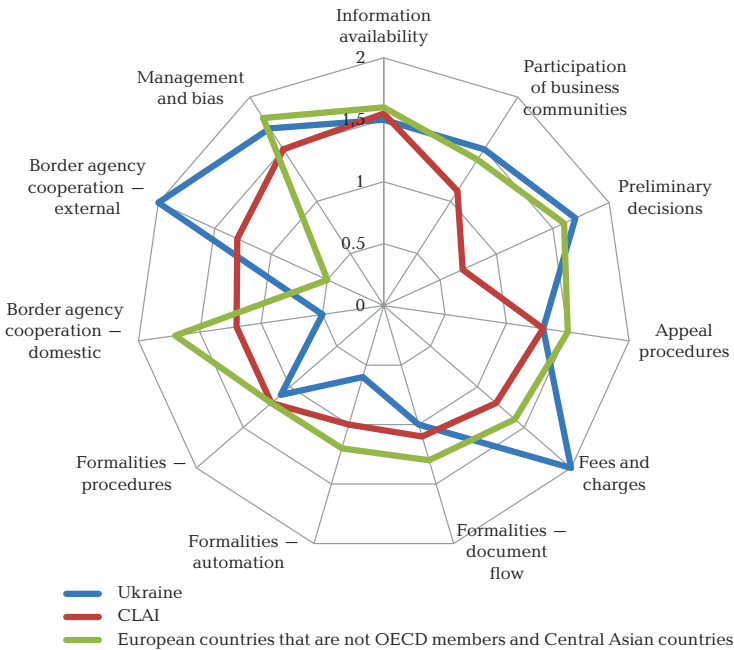


Fig. 7.1 The effectiveness of trade facilitation measures in Ukraine.

Note: 2 – the best practice.

CLAI – countries with lower than average income

Analysis and model calculations demonstrate the importance of pursuing a consistent policy to increase the presence of domestic producers in the domestic market by revising the import control mechanism, whose structure requires optimization in reducing import of non-critical goods and simultaneously stimulating strategic import.

The study proved that unreasonable tax breaks for importers and the absence of a differentiated approach to the establishment of import customs tariffs and tax rates do not ensure the optimal structure of Ukrainian import. Import promotion should be carried out in accordance with the national interests of Ukraine, and the effective organization of import stimulation should be based on the principles of ensuring the growth of domestic production in the country, primarily by encouraging the importation of critical import and means of production; focus on the development of export-oriented industries; economic feasibility when choosing goods to be stimulated (they must be new for the country's market, and those that are not produced at all by domestic enterprises or in insufficient quantities), taking into account the level of market saturation with goods at the expense of national producers.

According to the new conditions and obligations of Ukraine regarding membership in the WTO, current issues are currently improving the national market protection mechanisms. As the experience of highly developed countries shows, an effective system of technical regulation is a priority tool to support the position of domestic producers in an open economy.

At the same time, the lack of awareness and the inability of domestic producers and consumers to use technical regulation as an effective tool in the production, evaluation and selection of products leads to significant risks in the national market, in particular, to slow down the process of promoting the latest technologies; the appearance on the domestic market of dangerous products; the absence or limited information of manufacturers in technical regulations, standards and conformity assessment procedures that are introduced by trading partners, which makes it impossible to timely respond to stringent requirements imposed by importing countries, and is a factor in the low competitiveness of domestic products.

The main tasks in the field of technical regulation in accordance with the Association Agreement are [10]:

- bringing the national basic and sectoral legislation in line with EU legislation and ensuring the implementation of its provisions;
- implementation of necessary administrative and institutional reforms in accordance with the Agreement on Conformity Assessment and Acceptability of Industrial Products (ACAA Agreement);
- implementation of an efficient and transparent administrative system in the field of technical regulation.

In order to consolidate further steps in the national legislative field to reform the technical regulation system, the Ministry of Economic Development has developed a draft Strategy for the development of a technical regulation system for the period up to 2020, aimed at modernizing the Ukrainian economy and ensuring a high level of competitiveness of domestic products by gradually entering the EU domestic market.

The main directions of implementation of the developed strategy should be:

- adaptation of the Ukrainian basic and sectoral legislation in the field of technical regulation with EU legislation;
- ensuring the work of institutions in the field of technical regulation in accordance with European practice and the strengthening of their capacity (central executive authorities, national standards and accreditation bodies);
- the adoption of European standards as national standards of Ukraine with the simultaneous cancellation of the old GOST standards;
- the abolition of mandatory requirements for products and their manufacturing processes established in the regulatory legal acts and mandatory regulatory documents of Ukraine, in case there are no compliance of such requirements in the EU legislation;
- elimination of duplication of functions in the field of state supervision (control) over product compliance with established requirements;
- ensuring full compliance of the construction of the system of technical regulation of Ukraine with the approaches and requirements that exist in the EU;
- capacity building of NAAU and ensuring recognition of accreditation certificates issued to them at European and international levels;
- strengthening the role of subjects of the system of technical regulation of Ukraine in European and international forums and events, including taking measures to ensure and strengthen cooperation with European and international organizations on standardization, metrology, accreditation, conformity assessment and state market supervision;
- ensuring the integration of information exchange systems in the field of state market surveillance with the corresponding EU systems; strengthening the institutional capacity of public authorities, in particular, the Ministry of Economic Development and central executive authorities, which are entrusted with the functions of technical regulation in certain areas of activity and the development of technical regulations;
- implementation of preparatory activities for the signing of the ACAA Agreement; raising awareness of business entities and other stakeholders on the new system of technical regulation of Ukraine.

An example of generalization of the practice of protectionist policies, and its widespread use can be the conduct of the corresponding exchange rate policy. In particular, in 1998, the devaluation partially suspended import and stimulated the development of exports. For this event, the National Bank of Ukraine is usually encouraged by the developers of the state economic policy. But this method, as world experience shows, is the least effective. The impact of the devaluation of the national currency on the

development of the economy of any country is complex and ambiguous, as it is accompanied by inflationary processes and depends on the elasticity of exports, import dependence and competitiveness of national goods in terms of quality indicators.

The findings of many scientific publications assessing the demand for import indicate that a real weakening of the national currency leads to an increase in the value of imported goods, which in turn results in a change in the relative value of imported goods compared to domestic ones and a decrease in the available for consumption of a set of goods. Thus, the production and consumption of domestic goods grows as a result of the depreciation of the national monetary unit, while the import of goods, on the contrary, decreases under the influence of the substitution effect and income effect. The total volume of aggregate production can also grow as a result of the revitalization of the activities of export-oriented industries, which profitability tends to increase. Among the other positive effects of the depreciation of the national currency should also highlight the increase in the value of savings in foreign currency.

In conditions when import substitution occurs mainly in the types of economic activity, the dynamics of production and import of which in the short term practically does not affect the exchange rate and physical volumes of exports, fluctuations of the real exchange rate and competition from imported goods are perceived by such enterprises in the form of pre-determined external conditions. Thus, a combination of the results of the calculation and assessment of the scale of selective import substitution makes it possible to argue that periods of a low real exchange rate of the hryvnia can be used to intensify the growth of production in these industries. In our opinion, any measures to optimize the structure of import should be aimed at increasing the competitiveness of the national economy. At the same time, in order to protect the domestic market from unfair competition and in order to increase the presence of domestic producers in the domestic market, we have proposed the following areas: promotion of technological import, increased investment in the form of new technologies; protection of the domestic market from unfair competition from import; stimulation of domestic production and sales of products; the formation of financial and credit mechanisms to support the development of domestic production; increasing the efficiency of using energy resources.

All this will make it possible to achieve an increase in non-price competitiveness of domestic production with a decrease in energy intensity and an increase in the overall productivity of production, as well as the competitiveness of the economy as a whole for all components, traditionally included in the integral index of competitiveness in the annual reports of the World Economic Forum, and also lead to more effective protection of the domestic market from unfair competition from importers through the introduction of market monitoring into practice.

The government's policy to improve the overall competitiveness of the economy does not require any specific document, since its main components and goals should be implemented in all government program and strategic materials, which, according to the draft law of Ukraine on strategic planning, contain the entire spectrum of short, medium and long-term programs and strategies of both national and regional importance, as well as a system of state targeted programs. The practice of developing and implementing programs shows that a large number of them lead to a decrease in their effectiveness and duplication of program activities, dispersal of funds and, ultimately, implementation problems.

Among the existing problems of state strategic planning and development of system program documents, first of all, programs of economic and social development, as well as state targeted programs are: the weakness of the process of selecting key priorities, the definition of clear objectives for each of them; the establishment of target indicators for their achievement and most importantly – impossibility of establishing a clear system of monitoring and evaluating the achievement of goals. That is, there is no important component in the system for managing the course of preparing and implementing government programs, which makes it possible to assess the degree of solving problems for which strategic (program) goals are being achieved. The existing system of reporting on the implementation of programs is formal and not a single head of central and regional executive bodies is responsible for their failure.

If for the EU countries the stage of selection of priorities and the creation of a system for monitoring and evaluating the degree of achievement of the goals set has become more reasonable and is shaped according to public choice, on a fundamental methodological basis with software and information support, then the research shows that this system does not work in Ukraine. The participation of members of the public in the selection of priorities exists only formally, since drafts of program and strategic documents arrive to them with a delay and, most importantly, final decisions are made regardless of their consent or proposals. So, it is important for Ukraine to harmonize the approaches used to evaluate the implementation of plans, programs, strategies with the EU approaches to introduce European methods of monitoring and evaluation into the economic practice of all executive bodies, which is consistent with the principles of compatibility, reliability, harmonization and alignment adopted in the EU.

In the context of globalization and overcoming the consequences of the global financial and economic crisis, the implementation of selective import substitution policy becomes a necessary, but inevitable step for countries with a small open economy due to the need to level the negative effects of the global financial and economic crisis, reduce the trade deficit and reduce threats economic security of the country. At the same time, import substitution as an end in itself in an open economy is unattainable,

just as the transition to autarky and isolation of the state is impossible. Selective import substitution should be considered as a component of the country's economic policy, the competent implementation of which will not only reduce import, at the same time freeing foreign exchange funds and leveling the most important economic indicators, but also using mechanisms to stimulate the domestic producer to enter foreign markets with competitive products rather than narrowing the right to choose consumer, while maintaining the economic efficiency of import-substituting industries and the feasibility of financing them.

The need to introduce selective import substitution is closely related to the problem of ensuring the economic security of the national economy in the context of the globalization of economic relations. It should be noted that in domestic and foreign studies, the criteria for economic security are quite heterogeneous and differ significantly among themselves.

In our opinion, economic security is a state of the national economy in which a balance of interests of the state is objectively achieved, as a guarantor of stability, interests of economic subjects and individuals, as direct participants in socio-economic interaction and interests of external counterparties.

According to the State Program for the Development of Domestic Production, the main areas of structural modernization of Ukraine's industry are:

- ensuring the development of the economy and the leading role of the industrial sector in it, developing the domestic market by enhancing the supply of products of intermediate and final destination of domestic origin (equipment, advanced technologies, components, raw materials, equipment, products);
- the growth of the export potential of the economy;
- priority in the development of export-oriented enterprises producing goods with high added value, a high degree of processing, as well as producers of import-substituting products;
- carrying out activities for the total modernization of industrial production and enhancing the development of knowledge-intensive industries, formation, preservation and development of the scientific, technical and intellectual potential of Ukraine;
- creation of closed production cycles of a strategically important nature; improving the efficiency and competitiveness of the domestic industry;
- increasing the participation of domestic enterprises and organizations in international cooperation projects;
- creation of new and advanced products in knowledge-intensive industries for the approval of Ukraine's position on the global markets for high-tech goods;
- intensification of the processes of diversification of the activities of the main industries with the simultaneous expansion of the range and range of end products competitive in price and quality;

– formation of program management measures, development intensification of the information sector in order to serve enterprises introduction of monitoring of key markets for consumer and investment goods in the domestic market of Ukraine, as well as development of directions for expanding the supply of goods of Ukrainian production in these markets.

According to V. Sidenko, the strategy of protecting priority sectors of the economy and implementing a policy of selective import substitution should be considered as elements of state policy aimed at ensuring and maintaining economic independence [9, p. 76].

Among the key objectives of the development of domestic import-substituting industries should be noted to meet domestic demand, one of the growth factors of which is associated with an increase in real disposable income of the population. Ensuring the growth of domestic import-substituting industries is possible, provided that demand is met not only by import, even against the background of strengthening the real exchange rate of the national monetary unit. In order to stimulate domestic production, it is necessary to introduce measures to reduce the propensity to buy imported goods, which should be import-replacing enterprises and should be based on improving the quality characteristics of goods, carrying out market analysis, marketing comparison of domestic goods and foreign analogues, conducting regular checks for compliance with domestic and international goods and standards.

The key factors that make it necessary to introduce a strategy of selective import substitution in Ukraine include: the loss of domestic producers in the domestic market; inhibition of scientific and technological progress; a sharp devaluation of the national currency; dependence on world market conditions; decrease in demand for the main positions of Ukrainian exports; decrease in the dynamics of industrial production. The consequences of the implementation of the strategy of selective import substitution should be the modernization of production; growth of the added value created in the territory of Ukraine; reduce the impact of exchange rate fluctuations on the financial performance of the enterprise; the creation of additional jobs and the attraction of enterprises in the domestic and industrial production chains.

In order to effectively implement the import substitution strategy in the food industry, in our opinion, it is necessary to establish price parity between agricultural producers, processing enterprises and trade organizations, to increase import prices of food products that can be produced in Ukraine in sufficient quantities, and to stimulate export of domestic finished products, not raw materials, using price policy. Now the control over the safety and quality of food and food raw materials in Ukraine is exercised by such state executive authorities – the Ministry of Health (State Sanitary and Epidemiological Service), the Ministry of Agrarian Policy and Food (State Committee of Veterinary Medicine, State Plant Quarantine

Service) and the State Inspectorate on consumer protection issues, which leads to the duplication of functions and additional financial and administrative burden on enterprises. Therefore, it is advisable to introduce an integrated food control system with the creation of a single control body, as best international practice provides, while simultaneously abandoning outdated mandatory standards, and harmonizing legislation with WTO requirements.

State regulation of the textile industry should be based on the principles of differentiated state protectionism in the region with a complete production cycle (wool, linen, etc.). The high level of competition from cheap imported goods coming from China is a consequence of the liberalization of foreign economic activity, and therefore, it is reasonable to regulate duties and quotas for finished products. The high level of shadow import and import of clothing, which was in use, significantly threatens the development of the textile industry and requires legislative regulation. On tax privileges, the share of such industries as the textile industry, the production of rubber and plastic products, the production of machinery and equipment also does not exceed 1 % in the gross volume of tax benefits (for comparison, the fuel and energy complex – 28 %, transport – 15 %, agriculture – 12 %), therefore, expanded financing of the industry is a necessary condition for enterprises to recover from the crisis.

When choosing promising areas of import substitution in the chemical industry, one should choose sub-sectors that produce high-tech products, in particular, the production of surface-active substances (surfactants) and detergents. In order to reduce the energy intensity of technology, it is necessary to retool most industries. The chemical industry also requires the development and implementation of a number of legislative initiatives aimed at raising environmental requirements for manufacturers, which are now below European standards in Ukraine, introducing new energy-saving technologies and attracting private investment. The priority development paths should be the creation of an innovative infrastructure and scientific and technological base for development of innovative areas in the pharmaceutical industry, implementation of mandatory GMP standards for domestic manufacturers, creation of conditions for Ukrainian companies to cooperate with international pharmaceutical companies in joint projects.

Import substitution in mechanical engineering requires the strengthening of state support for scientific research and the creation of new types of technology and advanced technologies; formation of a competitive element base and components for household appliances; ensuring the maximum approximation of the warranty obligations of national manufacturers and the quality of service to world standards; amendments to the Tax Code in order to exempt from the profit tax of enterprises of the machine-building complex, which invest in innovative activities, in particular, research and development, proportional to the R&D expenses of the enterprise, setting the maximum limit of such discounts in the amount not exceeding 50 % of profits.

Thus, the analysis and calculations show the need for a consistent policy to increase the presence of domestic producers in the Ukrainian market. This will ensure overall macroeconomic stability and resolve the issue of food, energy and scientific and technical security. The development of domestic production should be oriented towards increasing non-price competitiveness with decreasing energy intensity and increasing the overall productivity of production and competitiveness of the economy, more effectively protecting the domestic market from unfair competition from importers.

An effectiveness of the formation of import substitution lies in the fact that this strategy, if implemented, makes it possible to switch to using national products, getting rid of imported, which is often expensive and unadapted, contributes to the stability of national production, closer to the world level of R&D, creating additional demand for its own equipment, raw materials, energy, labor. At the same time, selective import substitution reduces the risk of non-delivery of products, and therefore reduces the need for reserve funds. As part of this activity, the possibilities of using new technologies, the formation of new industries and industries, the application of new market models, the intensification of the development of scientific research and the improvement of training are increasing. Under such conditions, a stable economic and socio-political situation is formed, the market and competition develops, corruption decreases, budget revenues increase, that is, the economy receives a significant impetus for further effective growth.

At the same time, the effectiveness of the strategy of selective import substitution can be estimated on the basis of a set of socio-economic and environmental indicators, which are formed at the level of micro- and macro-economics. The optimality of import substitution can only be determined differentially by individual products depending on the level and boundaries of their safety. Since import substitution is a substitute for import by new own production, its implementation requires scientific, technical and social conditions, developed scientific and educational spheres, and are rather deeply integrated into the world economy.

The implementation of import substitution policy becomes a necessary measure for countries with a small open economy through the need to level the negative effects of the global financial and economic crisis, reduce the trade deficit, mitigate the lack of openness of the economy (reducing threats to the economic security of the country, extensive use of natural resources), insufficient funds to cover costs on import. It is substantiated that the strategy of import substitution can be effective in conditions of focusing on long-term comparative advantages, creating a system to stimulate the development of production of investment goods, reduce customs taxation of import of innovative goods and technologies for the production and further export orientation of industrial production to the territory of Ukraine.

Given the substantial dependence of the Ukrainian industry on goods for intermediate consumption and in order to effectively implement the

strategy of selective import substitution, it is advisable to establish incentives for strategic import. In our opinion, in the present conditions, the practice of such stimulation is justified and should include appropriate directions. The analysis of the commodity structure of import and the study of trends in the development of industrial production made it possible to classify the goods of strategic import in order to diversify the tools and instruments of its regulation depending on the importance of the role of individual groups of import for the development of the economy (Table 7.13).

Table 7.13 Classification of strategic goods import to Ukraine

Group of strategic goods import	UCGFEA code	Description
Critical import	270900900	Crude oil
	271121000	Natural gas
	251020000	Calcium phosphates are natural and also ground
	271290390	Vaseline, paraffin, mineral wax, lignite or peat wax
	400122000	Natural rubber, technically specialized
	400219000	Styrene butadiene rubber
	400220000	Butadiene rubber
	470321000	Wood, soda or sulphate pulp
	710231000	Non-industrial diamonds
	840140900	Parts of nuclear reactors
Investment import	840510000	Gas generators or steam generators with and without purifiers
	842121900	Equipment for filtering or purifying liquids and gases
	843390000	Spare parts for combine harvesters
	847989800	Machines and mechanical devices for special purposes
	860799900	Spare parts for rolling stock
	841191	Parts of turbomachine or turboprop engines
	841210	Engines and power plants: jet engines, except turbojet
	847150	Computational information processing machines and their blocks
Socially significant import		High-tech products – technology import
	300220000	Vaccines for people
	300239000	Veterinary vaccines
Import to ensure export production		The list of medicines identified by the Cabinet of Ministers of Ukraine
	–	Means of production, which are used for the manufacture of export products
	–	Parts and components for the production of export products

Source: developed by the author

According to this classification feature, the following groups of strategic goods import are highlighted in the work:

- critical import – the most important group of strategic import, which includes goods necessary for the balanced functioning of the economy and the lack of which could lead the country to an economic crisis. For Ukraine, this group includes the absence of raw materials and fuel and raw materials in the domestic market, as well as the resources and means necessary for export production: crude oil, rubber, natural gas;
- investment import includes high-tech goods, some types of machinery, equipment, mechanisms, a number of vehicles and their components;
- socially significant import – vital goods on which the well-being of the population directly depends, for example, certain foods, medicines, medical devices and equipment, vaccines for people and veterinary vaccines, whose production is limited or absent;
- import to ensure export production: goods necessary to increase the export potential of a country that have no analogues in the country or that are manufactured in insufficient quantities.

Such structuring of import will allow defining and justifying the necessary measures of tariff and non-tariff regulation in order to stimulate import-substituting production and rationalize the structure of import to Ukraine.

With an urgent decrease in the import dependence of the Ukrainian economy, the need has arisen to develop a set of scientific and theoretical principles, regulatory methods, specific measures and appropriate tools that will help improve the regulation of merchandise import to Ukraine. The thesis suggests conceptual approaches to regulating the regulation of the import of goods to Ukraine. The proposed mechanism contains the following structural and functional components:

1) effects: economic – reduction of external debt, growth in investment, development of leading industries; foreign trade – leveling the balance of trade for import-substituting groups of goods, improving the conditions of foreign trade, optimizing the structure of using import; social – creation and improvement of new industries, the organization of new jobs, the involvement of qualified scientific and technical personnel;

2) regulation principles – sovereignty, freedom, legal equality, non-discrimination, legality, transparency, acceptability, economy, openness, publicity, scientific justification;

3) importance of import – critical, investment, socially significant for ensuring exports;

4) purpose (intermediate, final consumption, gross accumulation);

5) measures aimed at the development of import-substituting production – implementation of zero rates of import duties on goods for intermediate consumption in import-substituting industries; introduction of zero rates of import duties on innovative products and technologies;

avoid duplication on the results of product quality and safety control; recognition in regional or bilateral agreements of export control results instead of additional import controls; the introduction of a procedure for post-use of imported products, a reduction in the VAT rate depending on the saturation of the domestic market of goods from 0 % to 10 %;

6) measures aimed at the development of export orientation in order to achieve a synergy effect – tax breaks for producers of export products up to 16 %, the formation of a market infrastructure of export support.

In contrast to the insufficiently structured and inconsistent practice of foreign trade, the current new conceptual provisions for import regulation require innovative approaches to the implementation of these measures, which consist in developing a multidimensional program to optimize import, increasing state influence on the formation of new competitive advantages of the post-industrial type. This will help increase the competitiveness of the country, modernize the export structure and develop the domestic market with a predominance of the mass of domestic origin in it, in line with national economic interests.

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Chapter 8

Regulatory aspects of international capital movement

8.1 Prerequisites for the formation of a system for regulating international capital movements and aggressive tax planning

At the present stage, international competition is gradually changing the format of the struggle for investment resources, since in the context of the globalization of the world economy, the improvement of production technologies and systems, other factors of choosing countries for investment begin to play a secondary role. Under current conditions, international corporations have the opportunity to optimize production processes without spending extra resources on labor costs. A significant part of business processes is automated, which completely eliminates the cost of labor as a decision-making factor for locating an enterprise. The use of innovative materials, the transition to new forms of energy consumption also significantly reduces the role of the resource factor. Thus, one of the main reasons for the selection of a country for the placement of group companies is the tax burden. This greatly aggravates the problems of tax planning and requires finding solutions to them both at the level of individual countries and the efforts of the world community.

Legal relations in the field of taxation is one of the most studied spheres of public life, because during the entire period of civilization development, the collection of tax payments by the state was a prerequisite for the development of their economies and a guarantee of the well-being of the population. Tax payments have always been an instrument of financing public needs, and in the context of the intensification of the rate of expansion of interstate relations, their role has increased significantly.

The efficiency of the tax system depends on its ability to satisfy the interests of all stakeholders as much as possible: taxpayers on the one hand, and society, benefits from the redistribution of funds-funds by the state, on the other. At the same time, it becomes extremely difficult to achieve a state of balance in current conditions: taxpayers, demanding new sources of financing for their own development, are trying to minimize payments

that are transferred to the state, against the background of increasing demand for additional resources to finance new and new state needs. The growing imbalance between the interests of the state and taxpayers, as a result, led to the emergence and development of tax planning of international corporations as a global phenomenon.

Tax planning at the national, and then at the international level, arose when a high level of state taxation does not guarantee proper satisfaction of the interests of taxpayers. This process can be associated with the development of large business, in which a limited number of enterprises that were able to achieve volumes of activity that are much higher than average, have to pay impressive taxes so that the state can perform its functions, not only protecting their interests, but and to provide conditions for the development of a less successful business and meeting the needs of the population. In such conditions, the search for opportunities to reduce the amount of taxes paid seems to be logical, which indicates the existence of a threat to further increase the volume of tax planning on a global scale.

It is characteristic that the problem of settling legal relations in the field of taxation is global: both developed countries and developing countries are equally dependent on the problem of the mismatch of tax revenues with real public needs. The situation is greatly deteriorating due to the fact that the openness of the markets inherent in the modern stage of development of international relations allows large corporations that are major taxpayers in the world to minimize the amount of taxes paid through the use of tax planning schemes.

Tax planning is a category that does not have a clear interpretation in the context of legal science. This is explained by the fact that the interest of scientists and practitioners in the legal tax planning regulation arose only in the mid-twentieth century, when the scale of application of various tax planning schemes by both national and international companies began to grow. It is worth noting that it is the trends of transformation of social relations and the nature of economic relations that determine the vector of development of legislation, forming the requirements for its improvement.

In the economic literature, tax planning is understood as the possibility for taxpayers to use all the methods, methods and techniques permitted by current legislation to minimize their tax liabilities [1]. The presented definition accurately reflects the essence of the process being studied, focusing on its final goal. In addition, the definition is considered clearly defines that tax planning is always carried out within the framework of current legislation, significantly complicates its legal regulation, and is also based on the use of various schemes, an exhaustive list of which is impossible to form.

Considering that now the main taxpayers in the world are international corporations, the greatest interest of the world community is caused by the problem of tax planning within the group of enterprises linked by corporate relations.

Tax planning of international corporations, or aggressive tax planning, being by their economic nature a phenomenon similar to the tax planning discussed above, has an important difference from the point of view of legal science: it is based on the use of differences in tax legislation of different states in order to reduce tax payments. Given this, regulating such practices requires coordinating the efforts of various countries, which interests may be opposing.

The differences that exist in the tax systems of different countries can be called the main reason for the emergence of tax planning of international corporations. Each of the countries, developing a system of taxes and fees, focuses on its own interests and needs, the specifics of the economic system, priority spheres of the economy and vectors of further development. Unification of tax systems of all countries of the world is impossible considering the factors cited, which is confirmed by the experience of the European Union (hereinafter referred to as «EU»), which even in the conditions of achieving a high level of integration, could not solve the problem of tax harmonization. Indicative can also be considered the example of the United States of America (hereinafter referred to as «the USA»), where there are differences in the tax system of individual states.

Thus, the focus on achieving different goals and solving specific problems is the main obstacle to the convergence of tax systems of different administrative units, states, countries, and integration associations. This indicates that the economic and political methods of countering the tax planning of international corporations at the international level can't be applied to solving the existing problem, and the way to overcoming the negative consequences and inhibiting the development of the phenomenon under investigation is in the legal plane.

The emergence of tax planning of international corporations is an objective manifestation of globalization processes. When choosing a country to create an enterprise, international corporations today are guided not only by the availability of the necessary resources or the relative cost of production, but also by the tax system. The possibility of reducing the amount of taxes paid by an international corporation by eroding the base in the current economy is becoming one of the key determinants of the choice of locations for the location of branches of international corporations. Considering that Ukraine is today an active participant in the globalization processes, the issues of joining international initiatives in the field of regulating tax planning of international corporations while at the same time forming national instruments to counteract its negative consequences becomes of considerable relevance.

Tax planning for international corporations began to grow rapidly in the mid-twentieth century, while in recent decades it has gained global proportions. Taking into account the possibilities of minimizing the tax burden is the norm for carrying out economic activity, which, in turn, is a logical consequence of changing the format of the business environment and the conditions of the world economy [2].

In our opinion, it is possible to identify several objective prerequisites for the development of tax planning for international corporations. It is they who determine the rapid pace of its development and turn it into a global trend. The main prerequisites include:

- unfair tax competition;
- tax advice as a separate economic activity;
- imperfection of the tax system and the lack of national legislation;
- intragroup policy of the business entity itself;
- regulatory process;
- low cost to create tax planning schemes.

The first and main reason for tax planning of international corporations is unfair tax competition. For a long time, investment resources were the engine of economic development, the basis for its strengthening in the context of limited own financial capabilities, a tool to stimulate economic growth and strengthen the position of national enterprises and industries in the international arena. At the same time, the ability of countries to attract foreign investment is usually associated with investment attractiveness, which was determined, first of all, by the opportunity for the investor to profit from the investment of financial resources.

In the process of historical development, the tax policy of countries was primarily aimed at meeting their own economic and social needs. Due to the absence of significant trade between countries, tax legislation did not require detailed regulation of legal relations with a foreign element. Therefore, the impact of changes in national legislation in one state had very limited consequences for another state. However, due to the globalization of trade and increased investment, the relationship between national tax systems has increased significantly. In-depth cooperation of states in eliminating tariff and non-tariff barriers in the areas of trade and investment, as well as the interconnection of national economies with each other, significantly increased the possible effects of changes in legislation in one state on other states. Reforming the national tax legislation aimed at expanding the tax base, reducing the tax rate, improving the tax climate for investors and adapting legislation to its efficiency and compliance with new changes, and led to unfair tax competition. The consequences of such competition are widely used by international corporations and, as a result, are one of the reasons for the tax planning of international corporations.

Unfair tax competition is «the negative impact of practice in taxation in one state on the base of another state that fully or substantially reduces the tax base from such practices in that state». That is, one state, introducing various tax benefits or creating a variety of favorable tax regimes, such as non-taxation of income, tax holidays, reduced or minimum tax rate, the ability to reduce the taxable base through those or other adjustments, lead to the movement of capital from one state to another. This, in turn, leads to an outflow of tax revenues from the state budget and, as a result, threatens such

fundamental tax principles as the principle of social justice and neutrality of taxation and leads to the inability of the state to fully finance its needs, and in the future makes it impossible development.

In order to avoid capital outflows and preserve the level of investment in national economies, the countries are forced to respond to aggressive changes in the national legislations of the neighboring states, and, in turn, also reduce tax rates or introduce similar tax benefits. As notes this leads to a «race to the bottom», because the state, through the introduction of various initiatives, reduce their tax revenues, in the future will lead to a complete absence of such revenues.

Offshore jurisdictions such as the British Virgin Islands, Bermuda, Belize, Hong Kong and others attract particular attention, because, by encouraging taxpayers to move their technologies, resources and capital to them, due to the absence of income tax, they thereby reduce or even lead to a lack of base in other states. Thus, the size of under-received funds is estimated differently. In particular, the value of assets stored in offshore accounts around the world is estimated at between 17 billion USD and 11.5 billion USD, while the United States estimates its tax losses from the activities of offshore jurisdictions at 100 billion USD annually [1].

Despite the fact that offshore jurisdictions are traditionally considered to be the flagship of unfair tax competition, it is impossible not to recall that in Europe, Asia and America, such as Canada, Colombia, Japan, Luxembourg, Switzerland, Ireland, the Netherlands, Monaco and others there are preferential tax regimes that adversely affect the base in other states.

In particular, Ireland is the most favorable state for the accumulation of payments in the form of royalties within the group of companies: for obtaining royalties other than payments for patents transferred for use. There are no taxes on non-resident income in most agreements on avoidance of double taxation, as well as taxation at the level of Ireland as such. Switzerland has created the most favorable conditions for the placement of the holding companies of the group, because the dividends received by the parent company from subsidiaries are not taxed. The Netherlands is a favorable jurisdiction for offshore holding, financial and leasing operations related to the receipt of interest, dividends and royalties, and Luxembourg for international holding, financial and investment companies (taxes on income of non-residents usually fail, due to the peculiarities of local legislation or availability of double taxation treaties).

Moreover, despite the direction of the EU countries to conduct a uniform tax policy (although officially it has the right to establish its own taxation rules within the country, if they do not contradict the fundamental freedoms of the EU), there are significant differences in tax rates between countries. In particular, Monaco (no tax), Hungary (tax – 9 % for income in the form of wages) and Bulgaria (10 %) can be classified as countries with a low level of taxation of individuals. Various benefits for personal income

tax are also provided by Switzerland, where residents who do not have sources of income in the state pay tax based on a tax agreement with the fiscal administration of a Canton, which does not exceed 100 – 200 thousand Swiss francs per year.

According to the international organization Tax Justice Network, as of the beginning of the second decade of the XXI century, in the territory of the states providing various benefits, it is localized from 21 trillion to 32 trillion USD in the form of assets of the richest people in the world (from one third to one half of the total GDP of all countries of the world). If imagine that such assets generate annual income in the amount of a conditional interest rate of 3 %, and capital gains tax is 30 %, then the losses from tax revenues of countries where such assets outflows range from 190 billion to 280 billion USD [1].

It should be noted that the use of preferences of countries actively participate in unfair tax competition, except for neighboring countries, also has a negative impact on the companies themselves involved in the use of various preferences. For example, Starbucks, in connection with the use of preferential royalties in Ireland to accumulate global profits, lost about 20 million GBP in 2014 in the form of reputational damage through extensive publicity about the company's participation in tax planning using various benefits of national legislation.

Since unilaterally solve the problem of unfair competition as one of the reasons for tax planning of international corporations, it is impossible to eliminate this phenomenon in the 20th century, international organizations and structures have joined, such as the Organization for Economic Cooperation and Development (hereinafter – «OECD») and the competent authorities of the EU. In particular, back in 1998, the main features of unfair tax competition were identified, namely:

- zero or nominal tax rates;
- conditions of strict secrecy and the lack of exchange of information with the tax authorities of other states;
- lack of transparency in the actions of public authorities on the application of legal acts;
- absence of any signs of the company's activity.

The OECD, like any intergovernmental organization, has no independent authority to impose sanctions on states guilty of unfair tax competition. The only method of struggle is the recommendations on countering unfair tax competition. These recommendations are divided into three main types:

- recommendations on changing the national legislation of OECD member countries;
- recommendations on international tax treaties, in particular, on the inclusion in the agreements of provisions on the prevention of the implementation in the national legislation of norms that would promote tax competition, on the exchange of information and interaction of tax

authorities, as well as provisions, excludes the use of preferences with offshore companies, etc.;

– recommendations for the development of international cooperation in this field.

According to many experts, the most effective method of dealing with countries that are involved in unfair tax competition and, consequently, contribute to the tax planning of international corporations «black lists» proposed by the OECD, which create serious reputational risks for the national economy and investment climate of such countries. Now the «black lists» include such countries as Andorra, Liechtenstein, Liberia, Monaco, Marshall Islands, the Republic of Nauru and the Republic of Vanuatu, etc.

Thus, unfair tax competition is one of the prerequisites for the emergence and development of tax planning of international corporations, entailing negative consequences both for the state in the long run and for an individual company in the short run. Today, investment attractiveness ceases to be a key engine for investment: the profitability factor gives way to minimizing the tax burden, and government actions to attract foreign funds are shifting to the plane of reforming the tax system. This has led to the need for the normative consolidation of the term «tax planning» and the formation of a system of its legal regulation.

Considering tax competition as a factor of investment attractiveness from the point of view of the OLI paradigm of J. Dunning [3], it can be argued that the favorable tax system affects all three types of competitive advantages that international corporations orient upon entering new markets.

The ownership advantages, usually associated with the presence of specific knowledge and technology in international corporations, which are protected by intellectual property rights, in the current environment is one of the most common objects of sale and purchase between companies registered in countries with high tax rates and low tax jurisdictions. It can be argued that the existence of tax competition significantly increases the value of a jurisdiction for the placement of its intellectual property.

Competitive advantages of location in turn are a direct manifestation of tax competition: the placement of separate divisions of international companies in countries with favorable taxation can significantly improve the efficiency of the business system as a whole, which is the ultimate goal of company managers.

The competitive internationalization advantages under conditions of tax competition are also greatly enhanced: international corporations have the opportunity to retain control over their own intellectual resources, managing them through separate subdivisions in low-tax territories, instead of transferring them to other companies or companies of the group.

Considering tax competition as a factor in the development of tax planning for international corporations, it is necessary to focus attention on the problematic nature of applying any measures to limit it. The existence of tax

competition is based on the principle of the sovereignty of countries participating in international relations, and, accordingly, the prohibition of forming favorable tax conditions for a business in a certain territory is impossible.

Formation of the system of legal tax planning regulation of international corporations should be formed taking into account the existence of jurisdictions in the world, the tax systems of which are designed to increase the investment attractiveness of territories. In such a situation, it is necessary to form in countries that are parent for a large number of international corporations, legal norms that would make the placement of units in low tax jurisdictions ineffective.

The second important prerequisite for the development of tax planning for international corporations is *the transformation of tax advice into a separate economic activity*. Traditionally, tax consulting was carried out by international auditing companies, but with the intensification of tax competition, it separated and became an independent area of economic activity. In the USA, for example, this profession is in the top 5 for graduates of economic specialties, due to the significant demand for the services of tax consultants from both local business and international companies.

The emergence of a significant number of tax consultants is due to the fact that the tax planning of international corporations is a legal process. For a service provider, this process is a type of management activity that aims to develop an optimal company development plan in terms of the amount of paid tax payments.

At present, the tax consulting industry is only in the formative stage. It has not acquired signs of an independent type of economic activity, and legal norms for entities providing services in this sphere are only beginning to form in economically developed countries. For other countries, and in the volume for Ukraine, this practice is relatively new, but it is precisely the separation of tax advice into an independent element of the services market that is one of the main factors, indicating the need for legal tax planning regulation for international corporations. The development of tax consulting in Ukraine has significant prospects, given the complexity of the tax system and the opacity of government institutions. This leads to the search for a new format of cooperation between tax authorities and taxpayers, which consist in including independent tax consultants in this system, which, in turn, actualizes the issues of forming a system of legal regulation of their activities.

The demand for the services of tax consultants is now quite high, due to the low amount of expenses incurred to attract them. It is characteristic that most tax consultants in economically developed countries specialize in providing services to international corporations, while specialists from less developed regions specialize in providing services to national companies.

The imperfection of the tax system and the lack of comprehensive and detailed national legislation of the state is the third reason for the emergence of tax planning of international corporations.

In particular, gaining independence in 1957, and becoming the first independent state in Africa, Ghana quickly and confidently developed. In 2010, the country was recognized as one of the leaders in achieving the United Nations Development Goals of the Decade. However, like most African countries, Ghana demanded more tax revenues to meet the needs of the state. The twentieth century is also characterized by the fact that in 1933, in one of the regions of Ghana – Accra – the first beer brewery was opened. Now its owner is a multinational company – SABMiller, which, taking advantage of the gaps in national legislation in recent years, does not pay taxes and takes funds offshore. Thereby generating a profit of 2 billion USD annually [4].

Despite the fact that SABMiller representatives point out that: «Compliance with laws is a cornerstone in the Company's operations. We actively cooperate with tax authorities, our business is completely open and transparent. We fully comply with OECD transfer pricing rules. We do not use aggressive tax planning schemes in its activities», it is established that the company uses 4 basic schemes to reduce the tax base.

Thus, all intangible assets of a company located in Ghana are owned by a company in the Netherlands. SABMiller International BV in Rotterdam owns such brands as «Castle», «Stone and Chibuku», using the benefits of Dutch law, does not pay any tax payments from the royalties received. This allowed the company to save tens millions USD. The budget of Ghana, in turn, received 10 million GBP.

The second scheme is the payment of fees for administrative services to a company in Switzerland, where the tax rate is almost zero. Payments for such payments amount to about 47 million GBP. Although the tax authorities of Ghana are aware of such manipulations with administrative service costs, according to the head of the tax authorities of Ghana, «administrative services are widely used by international corporations in tax planning schemes, but due to lobbying interests and the inability to determine the correspondence between quality of service and remuneration we are not able to effectively deal with this scheme». As a result, the state loses about 10 million GBP annually.

The third scheme – production of goods in Accra, the actual owner of which is a company in the offshore zone – the island of Mauritius. This allowed the company to reduce the tax rate from 25 % to 3 %. As a result, the budget of Ghana loses about 670.000 GBP annually. Due to the lack of fine capitalization rules, the fourth scheme is the debt financing of the Accra brewery and the subsequent payment of significant interest, reduce the financial result before tax by 100 thousand GBP annually [5].

Due to the lack of effective tax legislation, the budget of Ghana does not receive significant tax revenues, making the effective development of the state impossible. In order to improve the situation, Ghana and other developing countries need to take a number of measures, such as:

- improve tax legislation and tax administration methods. In particular, the taxation of intellectual property in the country where the

directly incurred costs for the development of such objects. To oppose the creation of holding companies in offshore zones if the main goal of such a structure is to reduce the taxable base;

- increase the semantic content of tax reporting. In particular, make public information about the Report on financial results and beneficial owners of companies. To join the world trends regarding the submission of tax reports in the context of each country of location of the Group's companies;

- focus attention, especially in the context of treaties for the avoidance of double taxation, in principle, taxation at the source of income, thereby taxing interest, dividends, royalties;

- guarantee the full opportunity to get acquainted with the company's income in the context of each activity;

- introduce mandatory reporting of corporate social responsibility for business entities regardless of the amount of income;

- closely cooperate with developed countries in implementing the rules of a «controlled foreign company» in their national legislation and changing the conditions for non-residents' income tax in the Double Tax Treaties;

- to cooperate with the big 20 countries and the EU to implement the rules for countering the creation of offshore zones and to counteract unfair tax competition;

- actively participate in various world organizations, determine world taxation policy, defend their own interests.

That is, the main goal of improving national legislation with a view to further countering the tax planning of international corporations should be a comprehensive package of measures that will not only be focused at the national level, but also within the international community.

Moreover, it is worth noting that the search for resources within a country that is developing quite a lot is important for the implementation of an effective tax policy of the state. According to the Addis Ababa Accord Report, a fundamental aspect of the development of a state is its internal independence and independence from external financing. This can be achieved by strengthening the tax policy of the state, improving the mechanisms of tax collection, effective use of budget revenues and consistent tax policy, which will further contribute to attracting foreign investment.

The absence of effective national legislation as a prerequisite for the emergence of tax planning for international corporations is closely intertwined with the ineffective work of tax authorities in monitoring the activities of international corporations. In particular, according to the British Parliament, due to the presence of significant financial resources, international corporations are able to use the services of the Big Four companies (PwC, EY, KPMG, Deloitte) that they are increasingly offering advice aimed at minimizing the payment of taxes.

Only in tax consultations, the Big Four companies together earn 2 billion GBP annually in the UK and almost 2.5 billion USD all over the world. Despite the fact that a significant amount of such consultations is aimed at meeting the requirements of tax legislation and compliance of the company's activities with international standards of taxation, the vast majority of such consultations are aimed at minimizing taxation of both individuals and legal entities.

Consultants have significant material resources, helping them for a long time to provide effective and qualified legal support for their clients. In addition, the number of tax consultants in the «Big Four» companies is extremely large, which allows them to distribute their employment qualitatively and thereby increase the number of consultations. For example, in the UK, almost 9,000 people work in the Big Four companies, while the resources of the tax authorities are insignificant, which makes it impossible to comprehensively counteract the tax planning of international corporations. For example, about 65 transfer pricing specialists work in the UK tax authorities, while in the «big four» companies about 250 people specialize in such projects.

Due to the significant material resources of the Big Four companies, the experience of tax consultants of these companies and the inability of tax authorities to competently oppose the tax planning of international corporations, Starbucks international corporation, paying interest in favor of an off-shore company, reduced its base by 6.3 million GBP in 2009 and 2 million GBP in 2014. Google, by avoiding the establishment of a permanent establishment in the UK, was also able to significantly reduce the amount of paid taxes [6].

Thus, gaps in national legislation and the lack of experience and an adequate level of competence of tax authorities to counter the tax planning of international corporations are the following prerequisites for the emergence of tax planning as a phenomenon. Addressing these gaps is a top priority for both the developing and the global community as a whole. However, it should be noted that the tax authorities are doing everything to identify tax planning schemes and this is confirmed by loud tax scandals with Google, Starbucks and others.

The next key prerequisite for the emergence and development of tax planning of international corporations is *the intragroup policy of the enterprise itself*. In 2007, researchers at the Oxford Income Tax Center in Oxford conducted a survey of board members of nine large international corporations in the UK on the ratio of intra-group policies of a group of companies and the tax planning of international corporations. Only two of those surveyed noted that corporate social responsibility plays a significant role in the tax planning of their company, while others have noted that «taxes have nothing to do with morality or social responsibility.» The lack of understanding among top management of companies of the possible consequences of tax planning of international corporations and the lack of external detection of such an understanding in the form of mandatory reports and corporate policies leads to tax planning of international corporations [7].

In particular, this manifests itself in the form of reputational risks for the company. In 2004, 97 % of large business representatives polled by PwC claimed that widespread publicity in the press about their tax policy would hurt doing business, and 40 % of those stated that the Group's intragroup policy plays a significant role in determining the amount of taxes paid in the future. According to the Financial Times, «taxpayers are investigating carefully enough, tax authorities may challenge their positions and there will be reputational consequences of such disputes.» These statistics are confirmed by practice, namely, in 2010, protests against such world-famous brands as Vodafone, Boots, Barclays, GE, Google broke out in the UK and the USA due to their active participation in tax planning schemes of international corporations.

Reputational risks lead to financial, because companies are forced to spend significant funds to restore their position in the market. For example, the company Vodafone suffered losses in the amount of 3 billion GBP in connection with the use of tax planning schemes of international corporations. This could have been avoided if the company had developed and adhered to the intra-group tax planning policy of international corporations.

In addition, reputational risks, together with financials, have a negative effect on the position of the company's shareholders, and in the future may lead to a change in the company's directors. As David Zion, CEO of Credit Suisse, notes, «the income tax is Pandora's box ... if shareholders or investors find out that the company carries more risks than before, then they will want to receive dividends in retained earnings, will further affect the cash. Therefore, it's not surprising that shareholders want to take an active part in the financial, especially tax, policy of the company. This, in turn, can be achieved if there is a clear and transparent intra-group policy in the company. A growing public outcry for tax planning schemes of international corporations, the interest of the company's shareholders in this will steadily grow.

Consequently, the lack of transparency on the part of international corporations primarily affects enterprises. However, it should be noted that the state is also experiencing negative influence directly. In particular, in January 2011, an investigation was conducted by the working group of the British Parliament on the number of taxes paid by one of the largest banks in the UK – Barclays. The general director of the bank, at that time Bob Diamond, noted that the bank had paid approximately 2 billion GBP for 2009. As it turned out later, a large part of this amount was a tax on personal income, and the tax on bank profits was only 113 million GBP. The effective tax rate was 1 %. As a result, the bank suffered significant losses, which could have been prevented by maintaining an effective intra-group policy of the bank throughout the world aimed at avoiding participation in tax planning schemes of international corporations [7].

To minimize the negative impact on international corporations and reinforce the importance of intragroup policies, a number of measures need to be taken. First, it is necessary to create a tax policy for a group of companies.

The tax policy should be developed on the basis of cooperation with colleagues responsible for corporate social responsibility, should be public and communicated to both the company's employees and the public in general. In addition, the company's tax policy should be regularly reviewed to meet global trends.

Such tax policy should be aimed at establishing the level of aggressiveness of tax planning of international corporations with reference to the fundamental principles of the company, including not only quantitative but also qualitative indicators. In addition, it should include calculations of taxes paid in each jurisdiction where the Group company operates, display information about specific tax planning schemes of the company, and also contain criteria for negotiating with tax authorities.

In addition to tax policy, international corporations should stop using tax planning schemes. Namely, practices that negatively affect the company when they become famous. For example, such schemes may include:

- concentration of valuable intellectual property items in low tax jurisdictions, except when such facilities were developed in such jurisdictions;
- moving the company's residency in low tax jurisdictions without good economic reasons;
- transfer of the main and valuable areas of the company's activities to low-tax jurisdictions;
- use of other tax planning schemes of international corporations aimed at using the benefits of a regime without good reason.

International corporations should also consider negotiating with tax authorities. This is especially true for developing countries. After all, taking advantage of the choice of jurisdiction, companies are trying to blackmail the government, which can also negatively affect the company's reputation.

The openness of the company is also a fundamental aspect of its intra-group policy, because both investors and the state as a whole can be confident that the company's activities coincide with its desires to conduct business honestly and transparently. This can be achieved by publishing reports on the company's activities, publications on the steps that the international corporation avoids minimizing the taxable base by participating in various tax planning schemes, counting the amount of income that the company plans to distribute during the year, open information about the assets owned by the company, and also provide information on the amount of taxes paid in the context of each state.

So, the intra-group policy of the enterprise itself is a key prerequisite for tax planning of international corporations, because due to the lack of a company's business policy and lack of control by shareholders and the state, international corporations will actively participate in tax planning schemes. This can be counteracted through a set of measures, among which the policy of an international corporation on participation in tax planning schemes is formally defined.

Another prerequisite for the dynamic development of tax planning for international corporations on a global scale is the multi-subject nature of

a regulatory process aimed at reducing its negative consequences. At the national level, the overwhelming number of countries, if there is a relevant initiative, can quickly change the regulatory framework, making it impossible for enterprises to behave, which causes economic losses to the state.

At the international level, where tax planning of international corporations takes place, the process of negotiating and forming the common position of all interested parties can itself take years. In addition, even after developing a common position, there is a time gap between the entry into force and the corresponding changes in each particular country. Considering that the process of negotiations and decision-making is public, the existence of a temporary gap allows business entities to adapt to new realities, which significantly reduces the effectiveness of the regulatory process.

The prerequisite for the development of tax planning for international corporations, has an economic nature, can be called *a low level of initial costs for creating tax planning schemes*. Compared to other areas in which innovations can be used, tax planning of international corporations is cheaper – it does not require the purchase of expensive equipment or significant costs for personnel retraining and product testing. This makes this process attractive for companies aimed at dynamic development, and acts as a factor in its rapid development.

Thus, unfair tax competition between countries of the world, tax consulting as a separate type of economic activity, the state of development of the tax system and national legislation of a country of the world, intra-group policy of the enterprise itself, the regulatory process and the effective work of tax authorities to identify tax schemes planning and implementing effective initiatives for legislative changes are key prerequisites i tax planning i international corporations. The sooner the world community can find a compromise to eliminate these preconditions, the sooner the tax planning of international corporations as a phenomenon and its negative impact on the base will be eliminated.

It should be noted that the use of tax planning of international corporations is an objective process, it follows from the right of each of the entities to take any means to maximize their own benefit, if such measures are not prohibited by law. Despite the fact that some of the actions that may be committed by international corporations may look like illegal, they are fully compliant with the legal requirements of the countries and territories in which the group enterprises are registered and/or function.

Tax planning of international corporations is inherently an innovative management activity, so it can be argued that its active development is based on the constant search by enterprises for opportunities to increase their own profitability. When studying the phenomenon of tax planning of international corporations, it is necessary to take into account that the purpose of this process is precisely to obtain economic benefits. Thus, when forming a regulatory system, it is necessary, first of all, to look for opportunities to minimize the benefits that arise when using a particular scheme, or creating conditions under which these benefits will be less possible for the corporation.

In addition, it is also advisable to take into account that even with the substantial transformation of the legal field, new schemes will appear in the short term, which will be adapted to the new realities and meet current legislation. In fact, the legal tax planning regulation of international corporations, considering its nature, is a cyclical process, the goal of which should not be to eradicate the phenomenon under investigation, but to search for opportunities for the most effective balancing of the interests of all subjects of social relations arising in this regard.

Thus, it is possible to conclude that tax planning of international corporations as a process, even in the face of increasing interest in it from regulatory structures, has significant prospects for dynamic development. This is due to the fact that its emergence and further use is a response to changing business conditions, when traditional methods of improving efficiency are inferior to innovative approaches, mainly in the non-production sphere.

In our opinion, the development of tax planning for international corporations at the present stage can be associated with such processes as digitalization and servitization of the economy: access for traditional factors of production is becoming less and less important for enterprises, since human labor and production resources can be easily replaced with artificial analogues. In such conditions, a very profitable allocation of production capacity is of exceptional importance for corporations, and the factor of tax savings is one of the key factors when choosing a place of incorporation for a group of companies.

An important role in the development of tax planning phenomenon of international corporations is also played by its separation into a separate sphere of economic activity. Appeal to tax consultants ceases to be a single phenomenon, today this process is systemic, which makes both the improvement of the format of the provision of relevant services and, importantly, stimulates the development of related industries – a system of training of tax consultants arises, and tax marketing stands out in a single direction. All of this leads to a further increase in interest in the process under consideration and, accordingly, increases the demand for it.

The development of tax planning for international corporations at the international level has been actively promoted by the fact that this process is very difficult to regulate. The efforts of individual countries are not enough to minimize its negative consequences, and the actions of the world community require a high level of coordination and coordination of the interests of all participants, making finding a consensus extremely difficult. In such circumstances, the tax planning of international corporations can be actively developed, ensuring the improvement of schemes that can be used to minimize the tax burden. Thus, a characteristic feature of the tax planning of international corporations, which makes it difficult to legalize it, is precisely the flexibility – the schemes according to which the subjects reduce the amount of paid taxes, which are constantly changing, adapting to the norms of current legislation.

When forming the system of tax planning regulation of international corporations, it is necessary to take into account that this process is not illegal — it is a consequence of the objective right of business entities to choose the best conditions for their own development. Thus, as a tax planning phenomenon, international corporations can't be prohibited. Separate schemes that are used by international corporations may be deemed illegal, provided that there is a place for a corresponding change in the law, but the process itself remains so consistent with legal regulations and is legitimate. Thus, the main goal of legal tax planning regulation for international corporations should be to find ways to balance the interests of all stakeholders, which, in turn, means minimizing the tax planning of international corporations as a phenomenon.

In the process of regulating the tax planning of international corporations, it is necessary to understand that the introduction of regulations prohibiting certain actions of business entities will not minimize the tax planning schemes of international corporations, but will only limit the number of existing schemes and lead to the creation of new ones. Considering the fact that, by its legal nature, the tax domination of international corporations is based on the current legislation, legal regulation of this phenomenon can be carried out on the basis of limiting the receipt of tax fabrications for entities that take part in such planning. This restriction, of course, should be carried out only on the basis of predetermined criteria, should be determined taking into account the practice of tax planning of international corporations, the most common in the country, as well as on the goals that each country sets in the process of regulating this phenomenon.

Returning to the reasons that motivate international corporations to tax planning, it is worth emphasizing once again that the need to take measures to reduce the amount of taxes paid arises when there is a significant gap between the effects that will be obtained with and without its application. Although tax planning for international corporations is a legitimate practice, as noted above, reputational risks from its use can be very significant. Thus, in order to reduce the level of use of the investigated funds, states should create conditions for effective business development, in which the risks associated with tax planning of international corporations will be greater than the profits obtained as a result of its use.

8.2 Tax planning of international corporations as an object of legal regulation

Considering the tax planning of international corporations, it is necessary to take into account the nature of their operation. Each structural unit of an international corporation is a subject capable of using legal tax planning in the country where it is located, while the corporation as a whole, based on differences in tax systems of different countries, can use tax

planning scheme, which on a global scale is name of aggressive tax planning. As part of our work, taking into account the use in the study, including the approaches of domestic scientists and practitioners to designate the actions of international corporations to use differences in tax legislation of different countries for tax purposes, use the concept of «tax planning of international corporations», equating it to the concept of «aggressive planning», which has become widespread in foreign practice.

In general, it is the tax planning of international corporations that creates significant threats to the world economy as a system, which causes considerable interest in its research and the search for means for legal regulation both at the national and international levels.

The first mention of the tax planning concept of international corporations («aggressive tax planning») is found in the OECD Seoul Declaration [8], but this document did not provide a precise definition of this term. The meaning of this concept is first presented in the OECD Intermediaries Report as: «Planning a taxation that is legal, but has unexpected consequences for tax revenue. (...) Adopting a taxation that is beneficial to taxpayers without disclosing inaccuracies or any contradictions regarding the legality of tax refunds» [9]. The same document notes that the OECD is concerned with the schemes and measures that allow international corporations to achieve results unexpected by lawmakers. In our opinion this document can be considered the first fundamental for the process of legal tax planning regulation of international corporations.

The disadvantage of this definition, however, is that it is impossible to distinguish between the tax planning of international corporations and legal tax planning for the above approach, since it focuses on the implications of tax planning, rather than on its compliance with existing legislation.

The focus on targeting the use of various schemes to minimize the amount of taxes paid was also made in determining the tax planning of international corporations proposed in 2012 by the European Commission (hereinafter referred to as the «**Commission**»). Thus, the tax planning of international corporations was interpreted as a process that «includes the use of artificial operations or structures, as well as the exploitation of differences between tax systems with the effect of the explosion of the tax rules of member states and the increasing loss of tax revenues» [10]. In this case it is necessary to define that such a definition of the essence of tax planning of international corporations does not coincide with the position of the European Court of Justice and its doctrine of «abuse of law» [11]. According to this doctrine, the taxpayer can participate in various operations and structures in order to benefit from a more favorable tax regime and reduce its tax liabilities.

Now the OECD working papers on tax planning of international corporations (aggressive tax planning) consider a set of measures to transfer profits to countries with lower tax rates, based on the use of differences between

tax systems of different jurisdictions, as well as the existence of preferential taxation of certain types of activities (OECD Economics Department Working Papers No. 1355) [12].

The OECD recommendation defines tax planning for international corporations as a process of taking advantage of the technical aspects of the tax system or disagreements between two or more tax systems for the purpose of reducing tax liabilities (Recommendations of December 6, 2012) [13].

Thus, the term «tax planning of international corporations» does not have an exact legal meaning, compared to tax evasion, which can be found in various legal systems, for example, in English or in Ukrainian legislation (Article 212 of the Criminal Code of Ukraine) and etc. [14].

Along with the approaches presented by international organizations and intergovernmental organizations, in recent years, tax planning of international corporations has also been caused to domestic and foreign scientists. It should be emphasized that in the absence of an approach that was formalized or although it was of a recommendatory nature, the interpretations suggested in the scientific literature differ significantly.

Thus, S. Brekhov, K. Proskura, and A. Sushkova, under the term «tax planning of international corporations», mean a special type of tax planning, with the goal of obtaining various tax advantages through the use of gaps and drawbacks of one or several tax systems. [15].

V. Korotun defines the tax planning of international corporations (using the term «aggressive tax planning») as a special type of tax planning, implemented by the taxpayer by making tax decisions that can lead to consequences that are different from those fixed by tax legislation due to its uncertainty or multiple interpretation [16].

A. Dubko defines tax planning for international corporations as a payer's activity on using properties of individual tax systems (in particular, on a cross-border scale) for their own tax benefit, which should be unreasonable [17]. In another article, the author can also find a broader definition of this concept: aggressive tax planning — the process of organizing a corporate tax policy should be aimed at conducting financial and economic activities that would make it possible to reduce the amount of your own tax in a legal way with a favorable financial result of own tax liabilities.

Quite interesting in the context of the study of tax planning of international corporations is the definition proposed by A. Poponova. Despite the fact that the author in her study focused on tax planning as a whole, separating the tax planning of international corporations into a separate legal category, in our opinion, its approach is most appropriate for interpreting the tax planning of international corporations. In her opinion, tax planning is the planning of commercial and *investment* activities in order to minimize tax payments. A. Poponova focused on investing as a key means of minimizing the amount of paid taxes, which is legitimate and takes on particular importance in the study of the activities of international corporations [18].

Thus, tax planning of international corporations is a concept that combines various tax minimization schemes, built with regard to tax policy disputes, which is the basis for the global community policy, which implements international coordination efforts to counter inconsistencies and gaps in national tax systems.

Summarizing the considered approaches, it is possible to identify a number of criteria that will allow to classify the actions of international corporations as tax planning:

- legality – compliance with the current legislation of all countries and administrative territories involved in the process of aggressive tax planning;
- use of differences and discrepancies in the tax laws of different countries and territories;
- target nature – provides for the adoption of deliberate measures to achieve the goals of tax optimization.

Paying attention to the considered criteria, it should be noted that they will be fair both for tax planning of international corporations and for legal tax planning. The only difference will be in reading the second criterion: in tax planning of international corporations, this process will be based on differences in the taxation system of different countries, and in legal tax planning it will be the use of roughness of specific national legislation by separate structural units.

In our opinion, the selection of these characteristics allows to fully understand the essence of the *tax planning* process of international corporations. Summarizing the existing approaches, we propose to consider tax planning of international corporations as a process of purposeful implementation of an international corporation through at least two separate divisions located in different countries, prohibited by law, and aimed at achieving the goals of tax minimization through the use of differences in tax systems of different countries.

An important issue in the study of tax planning of international corporations as an object of legal regulation is determination of the subjects of legal relations, as well as the object in relation to which they arise.

The subjects of legal relations arising in the course of planning are international corporations (represented by one or several separate divisions depending on what type of tax planning takes place) on the one hand, and tax authorities of one or several countries on the other. These entities have mutual rights and obligations that are closely related. While the international corporation as a taxpayer is obliged to pay all taxes defined by law, while having the right to use all legal means to reduce the volume of such payments, tax authorities are obliged to refrain from any actions that will prevent taxpayers from using their right to conduct business activities prohibited by law ways to achieve the goal.

The object of legal relations in the field of tax planning of international corporations are specific actions to achieve the goals of tax planning, and the subject is the means that are used to carry out such actions [17]. At the

same time, an important feature of tax planning is that neither the objects nor the subjects of legal relations are prohibited by law. When using at least one means, or committing any action that is recognized by the regulatory legal acts of the state in which territory they are used, as illegal, legal relations can be classified as tax evasion.

The main difference between tax planning of international corporations and legal tax planning is that the first process covers behavior that can be legal, but it threatens the existence of a tax system in a certain state and undermines the fundamental principle of the fairness of the tax system in the world. While legal tax planning is the decision of the taxpayer to use the best way in accordance with normal business practice, which is not considered as illegal.

Tax planning of international corporations in the scientific literature is often regarded as an activity like tax evasion. In our opinion, this approach is erroneous, despite the fact that a characteristic feature of tax planning is its legality.

The actions of international corporations as taxpayers can be classified as tax planning only if they do not contradict the current legislation, whereas tax evasion is illegal behavior of the taxpayer, leading to criminal liability [1]. When committing acts that are classified as tax evasion, the subject of taxation violates the law, leading to the emergence of negative criminal sanctions. Another term — «tax fraud», often used as a synonym for tax evasion, fully reflects the essence of this concept, focusing on the illegality of such activities.

Unambiguous interpretation of the tax evasion process makes it possible to develop effective means of national and international regulation, whereas with regard to tax planning of international corporations or even legal tax planning, creating an effective regulatory system is extremely difficult, since the taxpayer, irrespective of subordination, completely legally organizes their tax affairs in such a way as to reduce the amount of taxation.

After analyzing a sufficient amount of material, it can be concluded that the differences between tax prevention, legal tax planning and tax planning of international corporations are certainly there. These differences are supported by the form and content of the particular transaction, the legal expectations of the authorized persons, the specific intention of the taxpayer and the economic soundness of the particular transaction or its absence.

The essence of the concept of tax planning of international corporations, respectively, concerns the legitimacy of the standards in which it is implemented. In one jurisdiction, these standards may be perceived as legitimate; in another, the scheme will be treated as tax evasion.

Today, the legality of existing schemes is the business of every state, although the international community seeks to create a single basis for reflection in this regard. It should be noted that the concept of tax planning of international corporations has a right to exist, especially in the context

of countering inconsistencies between tax systems or income problems of stateless persons or double taxation, but further clarification of concepts and the development of common approaches to counteracting at the international level are necessary. The difference between the concept of tax evasion, tax planning of international corporations and legal tax planning is presented in Fig. 8.1.

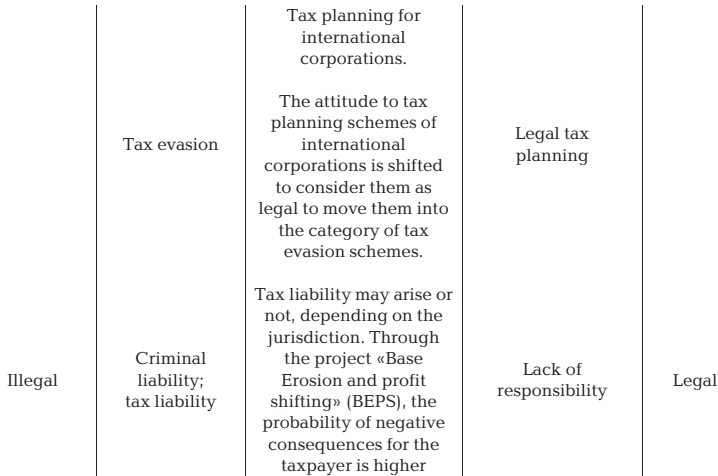


Fig. 8.1 The legal essence of the concepts of tax evasion, tax planning of international corporations and legal tax planning

It can be stated that in the current conditions for the use of tax planning schemes (both national enterprises and international corporations) is a fairly common area of activity of business entities. The use of schemes that would allow to reduce tax liabilities, and which at the same time do not contradict the current legislation, leads to significant financial losses, especially in economically developed countries with high tax rates. This, in turn, became the reason for considering the problem of tax planning of international corporations as one of the key ones in the context of ensuring the sustainable development of national economies.

In recent years, tax planning as a phenomenon has evolved into a global phenomenon, the consequences of which are becoming more tangible in the context of the active involvement of international corporations in this process.

Thus, one of the problems with applying tax planning schemes for international corporations is that it is usually associated with illegal schemes and violation of the law. However, this process is different in nature from the concept of tax evasion and has the purpose of using methods prohibited by law to minimize the tax burden of international corporations.

One of the key characteristics of tax planning for international corporations is its flexibility. In world practice, there are currently over 400 different schemes that have been used to reduce the amount of taxes paid by international corporations. At the same time, this number is constantly growing, because in the face of countering such schemes at the regulatory level, business entities are forced to look for new and new opportunities that will minimize the taxable base and meet the requirements of the legislation.

It can be predicted that in the future there will be an increasing number of schemes that will be of a more complex nature, and the rate of their appearance will also increase. This assumption is based on increasing the pace of development of international corporations and takes into account the dynamics of the development of tax consulting as one of the independent areas of economic activity.

It should be noted that today international organizations and EU institutions are exploring the existing tax planning schemes of international corporations with the aim of identifying common features typical for most of them, the legal regulation of which will allow their legal use to be excluded. At the same time, it is possible to note that the analytical work in the field of tax planning of international corporations is exclusively stating: scientists and practitioners are able to explore only existing schemes used by corporations, while the formation of new tax base minimization schemes remains the prerogative of international corporations and tax consultants.

Analysis of the practice of tax planning of international corporations revealed the main schemes that are now used in the practice of international corporations. These include:

- Selection of the place of registration of structural units of an international corporation;
- Prevention of the permanent establishment (hereinafter referred to as the «PE»);
- Manipulations with the beneficial owner (hereinafter – «BO»);
- Payments for the use of intellectual property.

One of the simplest tax planning schemes for international corporations is to choose the place of registration of separate structural units, taking into account the characteristics of alternative tax jurisdictions.

Practice shows that the main criteria for choosing jurisdiction include income taxation, the availability of preferential or special regimes for trading, transfer pricing rules, taxation of payments in favor of the parent company, in particular dividends and interest, VAT rules, accession to automated exchange of tax information, the use of the concept of «sufficient presence», the implementation of the BEPS plan, the ease of doing business, the obligation of an annual audit, money restrictions, requirements for the mandatory opening of a bank account, the estimated cost of creating a company, the minimum share capital, the estimated cost of maintaining the company, and the like. To analyze these criteria in practice, we had

a relatively tax regime of three countries – Estonia, Bulgaria and the United Arab Emirates (hereinafter – the «UAE»).

On taxation of income and the availability of preferential or special regimes for such taxation, it should be noted that in the process of comparing taxation of profits in the context of the choice of jurisdiction for registration of a separate division of an international corporation, not only the tax rate is taken into account, but also at what stage such a tax is charged (receipt or distribution of profits).

In particular, in Estonia the profit from trading activities is not taxable at the stage of its receipt, because the country has a tax on capital withdrawal. Tax on capital withdrawn at a rate of 20 % is applied only at the moment of profit distribution. From 2018, the tax rate will be reduced to 14 %, but the reduced rate will be applied in stages. Only companies that distribute profits for the last 3 years in a row will have the right to apply the rate of 14 %. In 2018, retained earnings will still be taxed with a tax on capital withdrawn at a rate of 20 %. Starting from 2019 and for the next 3 years, 14 % will be applied up to 1/3 of the distributed profits. The reduced rate of 14 % can be applied to the entire amount of distributed profits no earlier than 2021. Under the distribution of profits refers to the payment of dividends, income from the repurchase of shares, income arising from the reduction of capital, adjustments associated with transfer pricing, and other income, not associated with economic activity. At the same time, issuing a loan is not equal to the distribution of profits and, therefore, is not taxed in Estonia. In Bulgaria, the company's profits will be taxed at the standard rate of 10 %. There is no income tax in the UAE, with the exception of the right to tax individual profits in the UAE, such as banking and oil and oil products trading.

Thus, Estonia, as a country that has unified the tax on capital, can be elected taxpayers for the purposes of tax structuring in the case of active trading activities, because the income from such activities will not be taxed. On the other hand, for holding companies of international corporations that are actively involved in the distribution of profits, Estonia is not the most profitable place to create a separate division. But the holding company will be more interested in Bulgaria or the UAE.

Another criterion for choosing the place of registration of separate structural units of an international corporation is a comparison of jurisdiction on the criterion of the availability of preferential taxation regimes, if any. Requirements for obtaining a license for a certain type of economic activity, as well as special conditions for the registration of enterprises, if any, are also taken into account. There are no such regimes in Estonia and Bulgaria, but in the UAE there is a regulatory and legal framework that allows to create enterprises whose ownership structure does not include UAE residents only in special free trade zones.

Of particular importance when choosing a jurisdiction for the registration of a separate division of an international corporation is the application in

this territory of transfer pricing regulations (hereinafter referred to as «TP»). In terms of content, transfer pricing is the use of prices in transactions between structural divisions of international corporations that differ from market prices in order to achieve tax goals. The use of transfer pricing by international corporations is one of the main challenges to the balanced development of the world economy, which has led to the intensification of the efforts of the world community to counter this phenomenon. As a result, the OECD has developed «OECD transfer pricing guidelines for transnational companies and tax services» (hereinafter referred to as «TP Recommendations») [19], which is now a key methodically advisory document to counteract the use of transfer pricing when conducting transactions within corporations.

With regard to the Estonian TP legislation, it should be noted that Estonia is a member of the OECD, and therefore adheres to the TP Recommendations. According to Estonian law, a company must adjust its tax liabilities, if she performs any operations with the related persons and the «arm's length» principle is respected. Such adjustments are recognized by the distribution of profits and are taxed at a rate of 20 %. Requirements for mandatory preparation of documentation for TP is distributed only if at least one of the following conditions is fulfilled: the volume of sales of the company's volumes exceeds 50 million EUR per year; company revenue exceeds 43 million euros per year; the company has more than 250 employees; are operations with the related parties in low tax jurisdictions (the list of such jurisdictions includes more than 20 countries and consists mainly of countries with a low tax rate and, in particular, includes such countries as BVI and Belize). March 15, 2017 Estonia joined the system of collecting and exchanging reports by country (Country-by-Country Reporting). International groups with a total turnover of at least 750 million euros should submit such a report for the 2016 fiscal year no later than December 31, 2017.

Bulgaria, in turn, is not a member of the OECD, but also adheres to the TP Recommendations. In Bulgaria, there are no special requirements for the preparation of TP documentation for a specific date. However, the tax authorities of Bulgaria are actively conducting inspections of taxpayers on the TP issues. In case of any questions to taxpayers, the tax authorities may request the TC documentation, which usually must be provided within 30 days. Since August 4, 2017, Bulgaria has joined the system of collecting and exchanging reports by country (Country-by-Country Reporting).

In the UAE there are no rules for TP. However, it should be noted that the choice of jurisdiction is important when the country of a separate division of an international corporation complies with OECD recommendations, since other countries in which an international corporation operates may be considered in which countries the international corporation operates.

An important criterion for choosing a jurisdiction for registering a separate division is also taxation of payments in favor of the parent company. In this case, it is taken into account whether there is a difference between

the taxation of payments in favor of residents and non-residents, especially those that are located in low-tax jurisdictions.

In assessing potential host countries by the value added tax criterion, not only its rate, alleys in the collection conditions, the presence of a differentiated scale for different types of goods and services, the possibility of reimbursement and the like are taken into account.

It is very important when choosing a jurisdiction to locate a separate division is the application on its territory of the concept of sufficient presence, which is designed to distinguish companies that carry out real business transactions from companies created solely for the purpose of obtaining tax benefits.

The problem of the tax laws of most countries is the lack of criteria for «sufficient presence». At the same time, in the world practice a list of main indicators of sufficient presence has been formed, to which the following criteria can be attributed, but not exclusively:

- belong to the place of making management decisions – such decisions must be made at the company's office and the mother must be legally fixed;
- requirements for management personnel (director or board of directors) – the director must be a qualified person, have the necessary education and the necessary experience in the relevant;
- availability of office space – there must be an object (own or rented premises) where the staff could perform the assigned tasks;
- functional profile – compliance of functions, risks and assets of the company with its profile and income level;
- personnel – the number and qualification of personnel must meet the goals and objectives for which the company was created and should be directed to generate income;
- sources of income – should be taken into account the level of diversification of income and compliance with the income received, the profile of the company.

Provided that the country uses the requirements for sufficient presence, its level of attractiveness for international corporations in the context of its use in tax planning schemes is low.

In addition to the criteria characterizing the favorableness of the country's legislation to minimize the tax burden, the choice of jurisdiction also takes into account the economic and institutional environment. Thus, the subject of analysis are international ratings, which allow to evaluate the efficiency of taxation, ease of registration of enterprises, the presence of obstacles to international transactions and the like. In addition, considerable attention in the analysis process is paid to currency restrictions, which determine the conditions for paying dividends to foreign investors.

Another important criterion for the choice of jurisdiction is the amount of expenses for registration and maintenance of a company. At this stage, not only is a comparison of costs in different countries, but also a comparison of them

with the potential benefits of locating a separate unit in a certain area. Depending on what goals the international corporation should, on the basis of the criteria considered, the host country is selected. For example, the cost of creating a company in Estonia is about 2–3 million EUR, in Bulgaria is about 8–9 million EUR, in the United Arab Emirates is about 17–25 million USD [20].

Thus, the choice of place of registration of separate divisions of an international corporation is quite an important step for tax purposes. It should take into account the nature of the activities of such a separate unit, the further method of its financing and the purpose for which it is created. In addition, it is worth noting that the choice of the place of registration of separate divisions of an international corporation can be viewed as an independent tax planning scheme, and as a preparatory stage for the implementation of more complex and complex measures to reduce taxes paid by international corporations.

The next scheme used by international corporations in the tax planning process is artificially avoiding the PE status for tax purposes. The possibility of using such a scheme is explained by the existence of bilateral agreements on the avoidance of double taxation between the countries, mainly stipulate that the profit received by a resident of a country from business activities in another contractual country is subject to taxation in the jurisdiction of the tax residence of such a person except for operations carried out through the PE. Such an approach to the taxation of business income derived from conducting business abroad is explained by the fact that most of the double tax treaties are based on the OECD model tax convention on income and capital (Model Tax Convention on Income and on Capital) [21], which is a set of standard clauses for agreements on avoidance of double taxation of articles, which set out issues of fair distribution of taxation in transactions in which two contracting countries and their tax residents are involved [20].

In order to avoid the PE under the condition of the existence of an agreement on avoidance of double taxation between countries, it allows the parent company registered in low-tax jurisdictions to pay taxes at the place of its tax residence, actually operating in the countries with a less favorable tax environment.

The legislation of most countries in the world is currently being formed in view of the high risks that international corporations use of PE care scheme, providing a fairly wide list of criteria for classifying operations as operations carried out through PE situations. In particular, according to the OECD model convention, there are several tests to determine the PE. It should be noted that the PE definition, provided by the TCU is quite close to the definition proposed by the OECD and for the purposes of further analysis we use it.

Thus, in particular, according to the Tax Code of Ukraine (hereinafter referred to as «TCU»), PE is defined as a permanent place of business through which non-resident business activities in Ukraine are carried out in whole or in part, in particular: place of management, branch, office, factory, etc. d. (test permanent place of activity) [22].

TCU also notes that, for tax purposes, the term «permanent establishment» includes a construction site, a construction, assembly or installation facility, or associated supervisory activities, if the duration of work associated with such a site, facility or activity exceeds six months (specific test object).

PE also includes the provision of services by a non-resident (other than the provision of personnel services), including consulting services, through employees or other personnel hired by him for such purposes, but if such activities are carried out (as part of a project or a project associated with it) in Ukraine during a period or periods whose total duration is more than six months, in any one-month period (service test).

PE will also arise if there are residents who have the authority: to act on behalf of only such a non-resident (to negotiate essential conditions and/or conclude contracts on behalf of this non-resident), which gives rise to civil rights and obligations of «non-resident» etc. (dependent agent test).

There are also rules according to which PE will be absent. In particular, PE is not the use of buildings or structures solely for the purpose of storage, display or delivery of goods or products belonging to a non-resident; storage of stocks of goods or products belonging to a non-resident solely for the purpose of storage, display; storing stocks of goods or products belonging to a non-resident solely for the purpose of processing by another enterprise; the maintenance of a fixed place of business solely for the purpose of purchasing goods or products or for collecting information for a non-resident; the use of individuals in the framework of the implementation of agreements on services for the provision of personnel; the maintenance of a fixed place of business solely for the purpose of carrying on for a non-resident any other activity of a preparatory or auxiliary character (test of preparatory or auxiliary activity).

International corporations use gaps in national legislation and treaties for the avoidance of double taxation in PE terms for the absence of prerequisites for its occurrence. So, in particular, under the agreement of the commission, one party (commission agent) of the obligations; communicates on behalf of the other party (committent) for a fee to make one or more transactions on its own behalf, but at the expense of the committent. With such a scheme, an international corporation can sell its products in the state without actually creating a PE in terms of a dependent agent test. As a result, the sale of goods through such a broker will not be considered a PE and the state will not be able to provide income tax. Since the commissioner who carries out such a sale does not possess the goods it sells, it will not incur income from the sale of such a product and, as a result, he will also not be subject to income tax. The commissioner can pay only taxes on income that it received in the form of wages/commission for the provision of such services. Due to the fact that now the definition of the PE state, like in many treaties for the avoidance of double taxation, does not regulate this issue in national legislation, the states are losing huge profits from non-taxation of such activities.

Another scheme aimed at the lack of PE creation in the part of the test of a dependent agent concerns situations when contracts that formally agree in one state are not formally concluded in it, since they are signed abroad. This leads to situations where international corporations are doing everything to actually negotiate the essential terms of contracts in one state, but in fact sign a contract in another state. As a result, states are losing enormous revenues from non-taxation of such activities, although there are still no sufficiently effective means of countering such schemes.

It is impossible not to recall situations where a person, usually a contract, is a nominal «independent agent», which actually leads to the PE absence but in fact it is closely connected with the international corporation on whose behalf it acts.

In addition, there are situations when company's abuse test preparatory or ancillary activities. Depending on the circumstances, an activity that was previously considered preparatory or subsidiary in nature may today relate to the core business of a company. And as a result, an activity that was previously considered ancillary or preparatory may now be the main one for the company.

Another way to avoid PE is «fragmentation of activities» in order to fail to meet the deadlines provided for by national legislation, with the onset of which a state of emergency arises in a particular country. Despite the ease with which international corporations can change their structures for tax breaks, it is very important to create a practice that avoids avoiding PE creation by «fragmentation» of existing business activities into small operations, in order to assert that each piece of such activity is preparatory or auxiliary to the main activity.

In the legislation of most countries of the world, there is also a problem in determining the PE profits directly, because in fact such PE is part of an international corporation and it is quite problematic to isolate PE profits from an economic point of view. International corporations take into account such limitations in the determination of PE profits as a criterion for carrying out activities in such jurisdiction.

Moreover, in the conditions of digitalization, taxpayers can carry out their activities anywhere in the world without actually being in that state. As a result, the state will not be able to tax the profits of such a taxpayer, because in fact there will be no PE on its territory.

The next scheme used by international corporations for the purpose of tax minimization is the use of manipulations with the beneficial owner.

The essence of such a scheme is that, in accordance with a number of international agreements, it is assumed that if the recipient of payments (royalties, dividends) is a non-resident who is also an actual BO of economic activity, a preferential tax rate or exemption may be applied.

In 2011, the OECD documents were proposed to make changes relating to the recognition by the beneficial owner of only those persons who have the full right to use and dispose of dividends. It also clarifies that,

provided that the recipient of the dividends is not obliged to pay them to another person (although he cannot use these funds, taking into account, for example, the need to use them to pay off accounts payable), it is still recognized as the beneficiary owner.

In general, the tax planning scheme of international corporations on the basis of frauds with BO can be represented as follows: in order to receive tax benefits in the territory of the country with which the parent state has concluded a tax agreement providing for preferential taxation of income from non-residents, an international corporation can a legal entity has been created, will receive BO status and, accordingly, the right to preferential taxation of payments.

To prevent the use of such a scheme, in the legislation of most countries, including Ukraine, restrictions are being introduced on who exactly can act as a BO. Thus, according to the Ukrainian legislation, a BO can't act as an agent, intermediary or fake holding company (conduit companies) [22]. In addition, according to the current judicial practice in Ukraine, when deciding on preferential taxation of non-resident BOs, the risks incurred in the process of earning income and the actual involvement in the process of obtaining it should be taken into account. In addition, it also takes into account that BO is only a recipient of income, which has the right to distribute it as a result and receive economic benefits from its use.

Considering the world practice, it is possible to note that now it is possible to find a large amount of materials by definition of the beneficial owner. Thus, in the consideration of the Royal Dutch case, it was recognized that the beneficial owner may be a person who is not the owner of the shares for which these dividends are paid. By the decision of the Swiss Federal Court of 2006, it was also determined that the beneficial owner could be recognized as a company that pays the widow to an unknown person in a third country. It is also indicative of the case of a Canadian court decision in the *Prevost Car* case, according to which a company registered in the Netherlands was recognized as the beneficial owner, despite the obligation to pay dividends to shareholders in Sweden and the UK [23].

In this case, there are also cases of excessive abuse of the right: for example, the Supreme Administrative Court of France in the case of the *Scotland Bank* did not recognize the Bank as the beneficial owner under the contract, made payments for the acquisition of rights to receive future benefits [LT].

The analysis of judicial practice indicates that the criteria for recognizing a person as a beneficial owner require further clarification, unification and legislative strengthening in order to increase the level of objectivity of judicial practice and the impossibility of using this scheme for tax purposes.

International corporations often use trusts in their practice to hide BO.

According to the current legislation, a trust is a non-resident legal entity operating on the basis of a trust property, where the attorney acts at the expense and in the interests of the principal, as well as the obligations for

a fee to perform certain legal actions [23]. The use of trusts allows trustees to reduce the taxable base due to the transfer of taxable assets to the trust fund, because as a result of creating a trust, the owner of the property effectively loses legal ownership of it.

In world practice, the most widespread are two types of trusts: discretionary and fixed. At the same time, in the tax planning scheme, it is optimal to use a discretionary trust, in accordance with the conditions of operation of which the trust manager can independently decide on the payment of income or capital of the trust in favor of the persons indicated in the trust instrument, as well as the sequence of payments. This flexibility makes discretionary trust an effective means of preventing the disclosure of information about a BO.

Another scheme used by international corporations in the tax planning process is the use of royalties of intellectual property.

The ability to use payments for the use of intellectual property is associated with the existence of special tax regimes, called the IP BOX (Intellectual Property box). The purpose of such a tax regime is innovation stimulation, which is now the trend of the economic policies of many countries around the world.

When international corporations use schemes based on the existence in the particular country of a favorable tax regime for enterprises engaged in innovative activities, an international corporation in such jurisdiction creates a wholly owned subsidiary, to which, as a contribution to the authorized capital, all existing intellectual property rights are transferred, as well as Rights to all future research and development.

This company licenses intellectual property rights to another company located abroad, and, accordingly, receives royalties, due to the existence of the IP BOX regime are subject to preferential taxation. In this case, the parent company receives dividends.

For example, in 2013 in the UK, the «IP box» regime was legally secured. According to this regime, under observance of qualifying conditions, the «IP box» regime provides an effective tax rate on profits of 10 %, which is associated with certain patents and other specific intellectual property rights. This in turn may reduce the effective tax rate for the international corporation as a whole. The IP boxing regime applies to patents granted by the UK Intellectual Property Office in accordance with the European Patent Convention and EU Member States. The company may also use the «IP box» regime if it has an exclusive license for such use of such rights. Privileges from patent boxing begin to arise already when the application for registration of the patent is submitted. Thus, income prior to patent registration will be taxed at a preferential rate.

This regime caused serious criticism among the EU countries, especially Germany, because a significant number of companies previously registered in one country or another, in connection with the preferential tax rate, moved to the UK. In 2014, Britain was forced to change the «IP box» regime.

Thus, according to the new rules, for existing companies, the use of a preferential tax rate will be allowed only when substantial expenses incurred for the development of an object of intellectual property have been incurred in the UK. In the case when related parties incur costs for outsourcing or acquisition (they will not be qualifying expenses for calculating the share of qualifying income), taxpayers should be allowed to maximize their qualifying expenses by 30 %, subject to limiting total expenses. Starting from 2021, the «IP box» regime will be canceled [24].

The explored scheme of using tax planning of international corporations is extremely important due to the fact that innovation activity is today one of the key business development trends. At the same time, a large number of developing countries have favorable taxation for companies working in the field of IT and produce innovations, which make their economies vulnerable to applying the studied approach to tax planning. Let's note that the digitalization of the economy is one of the key factors for the development of tax planning, and in the context of additional preferences for companies engaged in research and development work (hereinafter – R & D), the scale of tax planning implementation by international innovation companies will be grow.

Another scheme that can be used in the context of tax planning for international corporations is the creation of companies in offshore jurisdictions. It should be noted that the registration of a separate subdivision on the territory of countries with favorable tax laws and allow registration of companies whose activities are not connected with the country is not a tax planning scheme, but can only create the basis for the use of above approaches for tax planning.

The advantages of offshore taxation are used, in particular, by international corporations, which have in their structure the main holding company and its subsidiaries, representative offices and branches, located outside the jurisdiction of the parent company. At the same time, the key means of corporate international planning are: redistribution (diversification) of profits by concentrating the global profits of transnational companies in countries with a predominantly low tax level; understatement of profits by allocating part of the costs, payments, interest, dividends, royalties on the financial results of offshore divisions; the creation of profits – the actual removal of all operations in offshore jurisdictions.

Common schemes for the use of offshore territories in the process of tax planning include: creation of an offshore clearing center, which function is carrying out settlements based on a specially developed system; international leasing; creation of an offshore insurance company; export-import operations through controlled offshore companies.

The considered schemes were the most widely used in the practice of international corporations over the past decades, but in recent years, the laws of the countries involved in the transnationalization of international business have introduced legal regulations that limit their use. At the same

time, it should be noted that in the future, taxation entities may return to the implementation of operations under similar schemes, using new schemes instead of prohibited ones. For example, now the sphere of financial services is developing quite actively, there are new financial instruments, the use of which is unresolved, and, accordingly, there is the possibility of using them to minimize the taxable base.

Legal relations in the field of taxation is one of the key branches of law for each of the countries, since it is the adequacy of financial resources received by the state budget in the form of taxes that largely determines the country's ability to perform its functions of protecting public interests and meeting social needs. At the same time, the interests of subjects of legal relations in the field of taxation are usually opposite: while taxpayers are interested in paying a smaller amount of taxes to get maximum benefits from the state, tax authorities are interested in collecting as many taxes as possible to redistribute to priority areas, often different from those from which the largest amounts of tax payments. This imbalance caused the emergence of the phenomenon of tax planning, in conditions of globalization of international economic relations transformed into a global phenomenon.

Now it is possible to find such key prerequisites for the dynamic development of tax planning within the framework of the world economy: unfair tax competition; development of tax advice in a separate type of economic activity; imperfection of the tax system and the lack of national legislation; intragroup policy of a business entity; regulatory process; low cost for creating tax planning schemes.

The key prerequisite for the emergence of this process is tax competition, it is a process of competing countries for investment resources through deliberate liberalization of tax systems, it increases the gap between the taxation levels in different regions and causes the gradual spread of the practice of using tax planning in the world.

Another reason that stimulates the tax planning development is the transformation of tax advice into a separate economic activity that popularizes and makes tax optimization schemes available to international corporations. Under the conditions of underdeveloped regulatory funds at the national and international levels, the emergence of qualified specialists who are able to form an optimal scheme for a given enterprise significantly increases the likelihood of tax planning by international corporations.

Another factor influencing the tax planning development is the intragroup policy of an international corporation. In modern conditions, the ethical norms of doing business change significantly, it contributes to the use by international corporations of those schemes that were previously unacceptable. Thus, if the corporation is focused on minimizing tax payments, it has the ability to achieve this goal with the most appropriate methods for it.

The absence of a single regulatory center and differences in legislation of different countries also contribute to the development of tax planning,

since it is on the existing differences that most of the schemes that are used by international corporations are based. In addition, the active involvement of international corporations of least developed countries in the tax planning process, the bottom of whose territory the costs of registering separate divisions will be insignificant, also contributes to an increase in tax planning, since the initial costs of corporations are insignificant compared to the benefits resulting from.

It can be predicted that in the coming years, none of the above-mentioned prerequisites will cease to exist, and therefore there is an objective need to move to regulate the process of tax planning by legal means.

Due to the fact that international corporations are active participants in the development of international relations, it is their use of tax planning schemes that creates more risks for national economies and the world economy. It should be noted that within the framework of this study, the term «international corporations» was used to unite enterprises located in different countries with delegation of certain powers of centralized regulation of activities to governing bodies of an international corporation. Given that tax planning schemes that are used by transnational, international, multinational, and global corporations are similar, and the definition presented is correlated with the statutory interpretation of the concept of «corporation», let's consider this approach legitimate.

8.3 Legal means of limiting the influence of the tax factor on the development of international investment

The study of the essence of tax planning of international corporations and the reasons for its occurrence and development suggests that this process already requires the formation of an effective system of legal regulation, and in the future, in its absence, can become one of the main challenges to the system of international economic relations. At the same time, the emphasis should be placed on the systemic nature of the legal tax planning regulation of international corporations, since international corporations, whose actions are aimed at minimizing the tax base, are the most threatening for national economies, use in their schemes the differences in taxation of different states, and, accordingly, separate steps of individual states will not be able to create quality conditions for regulating the process under study.

Regulating the tax planning of international corporations is quite a challenge due to the inclusion of several countries in the process. Considerable attention was given to this issue only in recent decades, when the world community faced the problem of increasing the volume of losses due to the use of schemes aimed at minimizing the tax base by international corporations. At the regional and national levels, means to counteract such practices have begun to be created, however, given the flexibility and

dynamism of the tax planning process of international corporations, the current state of development of regulatory institutions can be called rudimentary, since the means to quickly respond to new tax minimization countries have not yet been developed.

Legal tax planning regulation of international companies should be carried out simultaneously on several levels, and include actions not only of national economies or international organizations, but complex measures, simultaneously implemented to achieve high results. In our opinion, three levels can be distinguished in the system of legal tax planning regulation of international corporations, each of which is of utmost importance to limit the practice of using differences in tax systems of countries to minimize the amount of taxes paid by international corporations.

Despite the international nature of tax planning, international corporations will not be able to effectively regulate this process without coordination of the global community. It is at the international level that the vectors of the regulatory process should be determined, analytical measures and applied research should be carried out, which will form the basis of regulation at the regional and national levels.

The interaction of the world community will allow to consider the problem of regulating the tax planning of international corporations as a whole. The problem of individual countries is that most of them do not have the opportunity to assess the impact of the tax planning of international corporations on the world economy, concentrating only on its consequences for the national economy. In addition, having limited information on the activities of international corporations, the tax authorities of one country cannot understand the logic of the tax planning process of international corporations and, accordingly, form an effective regulatory framework. Thus, the international level can be considered fundamental in the process of regulating the tax planning of international corporations, since it is here that the vector of the regulatory process should be determined.

A difficult problem for all participants in the process of legal tax planning regulation of international corporations is currently the lack of a unified information base that will allow tax authorities of various countries not to take action blindly. In practice, there is a time gap between the actual transaction made in order to minimize the payment of taxes, and the authorities of the countries concerned receive information about such a transaction. Thus, states lose the opportunity to prevent the use of certain schemes by international corporations and to minimize their negative consequences in the short term.

At the current stage, the key international organization implementing activities in the field of regulating the tax planning of international corporations is the OECD. The interest of the OECD in this process is explained by the fact that its members are economically developed countries, which, acting as parent countries for international corporations, suffer the most from the negative consequences of tax planning of international corporations.

One of the important initiatives of the OECD, which contributes to the formation of the system of tax planning regulation of international corporations, is the exchange of financial data for tax purposes. This initiative was launched in 2014 by the creation of Common Reporting Standard, also known as the Standard for the automatic exchange of information on financial accounts. Joining this initiative requires states to collect information from their financial institutions for the purpose of automatically or upon request exchanging it with other jurisdictions on an annual basis. The contract provides information on financial accounts, information about which is to be exchanged, criteria for determining financial institutions, on whose activities information must be provided, as well as general procedures for ensuring due diligence that financial institutions must follow.

The standard consists of the following four key parts: Model agreement on competent authorities, providing an international legal framework for the automatic exchange of information, joint reporting standard, comments on previous documents and the CRS XML Schema user guide, which is used to unify the format in which information is submitted. Today, more than 100 countries of the world have undertaken to fulfill the requirements of the Common Reporting Standard and their number is growing annually, which indicates the effectiveness of the considered tool for regulating the tax planning of international corporations.

It should be noted that the agreement on the automatic exchange of information is not in itself a regulatory tool, but rather acts as the basis for the formation of a tax planning regulation system for international corporations. At the same time, the BEPS (Base Erosion and Profit Shifting) action plan, the main value of which is to identify areas of joint action of all participants in global economic processes in the area of countering tax planning of international corporations, can be called an international act in the field of tax planning of international corporations.

BEPS is not a universal means of regulating the tax planning of international corporations; on the contrary, it requires the implementation of a number of legislative changes in each of the countries participating in the initiative in order to achieve its own goals. At the same time, the document fully defines what measures the country can implement to counteract the use of tax planning of international corporations in the conditions of digitalization of the economy, when using hybrid financial instruments or manipulating with the TP. The strength of BEPS is that these documents are a reflection of the modern realities of international business development: it takes into account the latest trends of the globalized system of world economic relations, focusing not only on the existing threats, but also on potential challenges that arise from the innovative stage of social development. At the same time, the documents also define measures that should be implemented in countries that are just beginning to consider tax planning of international corporations as an object of legal regulation (such as Ukraine) –

in this case, priority is given to measures that contribute to increasing the transparency of international corporations, in particular, joining to the automatic exchange of financial information, the improvement of tax rules for controlled foreign companies, the introduction of an additional report transfer pricing, improving the rules for limiting expenditures on financial transactions with related parties, preventing abuse in connection with the use of double taxation treaties, etc. [25].

In our opinion, the international level should really be key to solving the problem of tax planning for international corporations, since only the orientation of all countries towards uniform norms and rules, adherence to well-defined principles and the exchange of adequate information about the actions of international corporations in different countries can provide the basis for gradual control over the application of tax planning schemes of international corporations.

Along with the international level, the legal tax planning regulation for international corporations should be carried out at the regional level. This is due to the development of regional integration processes and the need to reduce the likelihood of using tax planning schemes for international corporations within integration associations.

Regional integration in the current environment is one of the most trends in the development of the world economy, largely due to the activities of international corporations and their need for access to new sales markets. At the same time, international corporations actively use the inconsistencies that exist in the legislation of the countries participating in the integration process to achieve the goals of tax planning of international corporations.

Considering this, the harmonization of the tax legislation of the participants of integration associations is an important task both in the context of achieving their integration goals, and in order to level the negative impact of the tax planning of international corporations on the world economy as a whole. Reaching a consensus with the participation of a limited number of countries, usually close in terms of economic development and linked by common interests, is usually easier than coordinating the positions of an independent participant in the cooperation process, thus regulating the tax planning process of international corporations can be considered an intermediate link which existence helps facilitate on the international level.

In modern conditions, the EU takes an active role in regulating tax planning of international corporations, which main executive body, the Commission, is creating a regulatory framework to reduce the possibilities for international corporations to use tax planning schemes of international corporations. Working documents of the Commission determine the main schemes that were used by European companies to erode the base, as well as ways to counter their use.

The EU is currently actively regulating the tax planning of international corporations, for a number of reasons.

Firstly, the differences existing in the tax laws of member countries create prerequisites for the use of tax planning schemes of international corporations in the territory of an integration association.

Secondly, the EU countries are maternal for a significant number of international corporations, which makes them extremely vulnerable to threats related to the further improvement of tax planning schemes of international corporations.

Thirdly, the countries-leaders of the community have stable developed economies, for which the use of hybrid financial instruments and innovative technologies is the norm, and not a prospect: given that these funds are widely used in tax planning schemes, international corporations indicated the need to form in the EU high-quality and effective regulatory tools for their use in the context of erosion of the base.

It should be noted that between the national and regional level of tax planning regulation of international corporations can also be distinguished sub-level associated with the existence of bilateral agreements between individual countries. Such contracts can be directly related to the problems of tax planning of international corporations (for example, the Agreement between the Government of Ukraine and the Government of the United States of America to improve the implementation of tax rules and the application of the provisions of the US Foreign Account Tax Compliance Act (FATCA) and be broader and cover certain aspects that may affect the process of regulating the tax planning of international corporations (in particular, of the agreement on free trade between countries or the Association Agreement signed by the EU with individual countries).

Despite the exceptional role of international and regional levels, effective regulation of the tax planning of international corporations cannot be implemented without taking measures in this area at the national level. Today, each country is to some extent integrated into the international business system, which means it can become a participant in the existing tax planning schemes of international corporations. Even those states which tax system does not create additional benefits for international corporations can be used to concentrate corporate losses, it is not in the strategic interests of any country. Thus, the means of countering the tax planning of international corporations should be developed at the national level, although the direction of the regulatory system should correspond to the vector of international organizations.

The national level is extremely important in view of the fact that measures identified as necessary at the international level must be implemented in national legislation. Monitoring compliance with these standards should also be carried out at the level of individual states. In fact, it can be argued that the national level is executive in the process of legal tax planning regulation of international corporations, which makes it important and causes the greatest interest in the context of legal tax planning regulation of international corporations in Ukraine.

In the previous section, we noted that in order to minimize the tax base, international corporations can use both tax evasion schemes (if they are used by a separate structural element of a corporation within one country), and tax planning schemes of international corporations (if process involved structural units located in different countries with excellent tax legislation). In this context, it should be noted that the national level is of paramount importance in regulating the processes of legal tax planning of international corporations, since in this case all the actions of the taxpayer are based on the inconsistency of the national tax system. At the same time, operations that can be classified as tax planning of international corporations at the national level can't be fully regulated and require coordination of efforts at all three levels of the system.

At the national level, the tax planning regulation of international corporations has, in the first place, the definitions of all phenomena and means associated with this process. Even in the case of development of a common terminological apparatus at the international level, it is necessary to fix the definition of all terms in the relevant legal acts.

Considering the existence of difficulties in the translation of certain concepts, due to which there is a probability of their incorrect interpretation (for example, in Ukrainian legislation a corporation is a business association, while in UK legislation a corporation is an organizational form of an enterprise, on grounds of similar public joint-stock company in Ukraine), a clear legislative interpretation is needed of the essence of all concepts related to the tax planning process of international corporations.

National tax legislation should also be formulated in such a way as to ensure that international corporations (as, indeed, national companies) can't use tax planning schemes of international corporations.

The main difficulty at the current stage lies in the fact that when countries are involved in the process of legal tax planning regulation of international corporations, changes in their tax systems will necessarily occur, which conflicts with the goal of each state to ensure the stability of the tax system. Thus, all measures that should be implemented by the country to regulate the tax planning of international corporations should be implemented with the least possible impact on the state of the taxation system.

It is important to note that the tax planning regulatory system of international corporations should include not only laws, but also regulatory documents of key state institutions that regulate certain areas of economic activity. At the same time, the key law, in which the goals, objectives, principles and means of the process being studied should contain references to other regulatory documents in order to achieve maximum efficiency of the system: the existence of ambiguous interpretations of terms and concepts for the existence of rules clearly defined in legislation will significantly decrease.

It should be noted that the legal tax planning regulation of international corporations should also be carried out at the level of business entities

themselves. First of all, it is about introducing the practice of supervising the use of tax planning schemes of international corporations by industry-specific international organizations. Characteristic of the modern world economy is that the system of sectoral institutions is quite common, which makes them quite tangible subject of regulation of international economic relations. Today, the practice of attracting international organizations to the process of solving the problems of countering the tax planning of international corporations is not widespread, but the possibility of influencing the use of tax planning schemes of international corporations at the level of individual industries can be tangible. In particular, it is about those areas for which this problem is most acute — financial services and IT. These industries are among the most sensitive to the use of tax planning schemes of international corporations, making the use of industry restrictions an effective means of preventing the further use of tax planning schemes of international corporations.

Along with international organizations, international corporations themselves may act as subjects for the tax planning regulation of international corporations, since the majority of corporations are extremely sensitive today to the impact of the social factor on them, and, accordingly, for the existence of a prejudiced attitude to the activities of international corporations by consumers, self-regulators in the tax sphere. Planning for international corporations can become corporate social responsibility.

World practice shows that corporate social responsibility is an effective means of countering the use of tax planning methods, international corporations, especially when companies are focused on meeting the needs of the consumer market. The use of tax planning schemes of international corporations has a negative impact on the reputation of the enterprise and leads to a decrease in customer confidence in it. Such a reaction makes it impossible to apply tax planning schemes for international corporations, since the decrease in revenues as a result of the loss of consumers can't usually be compensated by savings in taxes [26].

It should be noted that at the national level, mechanisms should be created that will regulate the process of disclosing information by international corporations on the actions that they have committed in the field of tax planning for international corporations. Corporate social responsibility can become a factor in the non-use of tax planning funds of international corporations only if the population reacts negatively to this model of enterprise behavior. In the absence of consumer access to information about the activities of corporations in the field of reducing tax payments, a reaction that could suspend this process will not occur, thus the self-regulating mechanism will not work. However, subject to a combination of measures at the national level and at the level of the enterprise itself, the use of tax planning schemes for international corporations can be reduced.

Thus, the system of tax planning regulation of international corporations is global. Counteracting the use of schemes for base erosion should be carried out at all levels and be coordinated and focused. The study shows that the tax planning regulation of international corporations at the same level would be virtually impossible, since the regulator would then be unable to comprehensively assess the situation (if it's about neglecting the international level) or use special tools that are effective in countering specific tax planning schemes corporations (assuming the situation when the regulatory process will be exclusively supranational character). Thus, the vector of legal regulation should be determined at the international level, while specific measures should be introduced at the level of individual states parties to international economic relations.

The scale of tax planning of international corporations as a universal means of reducing the volume of tax payments in recent years is becoming more and more. At the same time, the schemes that are used to reduce the tax base are becoming more and more developed and diversified: now it is not so much the use of inconsistencies in the legislation, but also the development and implementation of innovative financial instruments, the use of advanced technologies; the growth in the number of transactions in the services sector or on the transfer between subjects of intangible assets, the value of which is rather difficult to be objectively estimated; an increase in the number of «tax havens» and their active use by business entities at various levels; use of transfer pricing and the like.

Now an increasing number of countries are losing significant resources through the payment by enterprises of taxes in countries where the level of taxation is substantially lower, which becomes possible due to the imperfection of national and international legislation. Given this, an increasing number of countries are using specific means of countering tax planning, which makes them interested in exploring their progressive experience.

At present, funds that can be used by countries to counter the tax planning of international corporations, can be divided into 4 groups:

- means of monitoring tax planning schemes;
- funds to improve the integrity of subjects of tax planning objects;
- means to identify tax planning schemes for international corporations and increase responsibility for it;
- means of resolving disputes related to tax planning.

Thus, international practice demonstrates the inexpediency of completely eliminating the tax planning of international corporations, since for individual countries of involvement in schemes that are used by international corporations for tax purposes, is one of the main sources of economic development. At the same time, the main threats are formed under the condition that corporations use tax planning schemes of international corporations, the consequences of which are usually experienced by several countries at once.

When activating measures to counter the tax planning of international corporations, their use should be comprehensive. For example, international corporations involved in tax planning schemes should compensate for losses incurred as a result of such activities (by paying fines or additional taxes or fees), the schemes that were applied should be studied in detail, and tax consultants who participated in the development of the project brought to justice. The need to use the presented tools is systematically due to the fact that practice shows that the level of content of enterprises and consultants using the tax planning schemes of international corporations depends on the amount and effectiveness of the means used to counteract such planning.

One of the ways to combat the tax planning of international corporations in developed countries is improving the tax system so that the use of tax planning schemes of international corporations is unprofitable for business entities. This tool belongs to the third group, since it implies the emergence of financial responsibility for participation in tax planning schemes of international corporations. So, in this case, the attractiveness of applying tax planning schemes of international corporations can be reduced in the country, for example, by introducing additional taxes or fees. Thus, in the UK, since 2015, the Diverted Profits Tax has been redirected, the rate of which is 6 % higher than the corporate tax paid by all corporations in the country. (The corporate tax rate is 19 %, the tax on redistributed profits is 25 %) [1]. Thus, it is more profitable for British companies to pay tax for the normal tax regime than to use tax minimization schemes, since profits transferred to other jurisdictions will be taxed at higher tax rates [1].

One of the reasons for the widespread use of tax planning schemes in the world is the expansion of the activities of consultants engaged in targeted studies of tax systems in various countries in order to identify schemes for reducing the tax base. Today, activities in developed countries are aimed precisely at regulating their activities, introducing ethical standards and imposing fines for providing advice that contribute to the loss of significant financial resources by states.

The most effective areas of work with tax intermediaries are now the implementation of the following activities:

- mandatory registration and licensing of this type of activity;
- introduction of responsibility for non-disclosure of information on transactions, the legality of which may be questioned;
- introduction of liability for non-compliance with legislation (including criminal law);
- creation of trade unions that develop standards of conduct and ethical standards for tax consultants.

So, in the UK, there is the practice of creating professional communities of tax advisers, one of the tasks of which is the formation of standards and behavior and ethics. Similar structures also exist in the countries of Asia

and Africa (Japan, China, South Africa): these associations are responsible for registering professional tax consultants, and each specialist who carries out this type of activity is assigned an identification number, which is indicated in the declarations of consulted enterprises.

The tax authorities of the countries, borrowing the experience of each other and coordinating their efforts, are doing everything necessary both at the regulatory level and at the level of direct execution to combat the activities of business entities for tax purposes. In particular, proposed and even implemented in many countries (UK, USA, Germany, Russia, etc.), CFC rules, transfer pricing rules, requirements for beneficial owners of tax information exchange conventions, and the like. All this allows to counteract many schemes to minimize the taxable base. However, despite the ingenuity of business entities, for even greater struggle with the mechanisms of tax planning in many countries of the world, general anti-avoidance rules were developed to combat tax evasion (hereinafter referred to as «GAAR»).

It is believed that GAAR is a fairly effective way to combat tax planning schemes, because they provide ample opportunities for tax authorities to prevent the use of preferences that have arisen as a result of pre-established schemes to minimize the tax base of business entities.

Due to the lack of legal regulations related to the GAAR rules in Ukraine, let's suggest contacting UK law for a more thorough understanding of these rules.

In 2013, the Financial Act implemented GAAR rules in UK legislation. A working group led by Graham Aarson, a well-known British lawyer, advisor to former British Prime Minister David Cameron, laid the foundation for these rules on the principle of equitable tax collection, on the basis of which these rules were later developed. It is on the principle of effective taxation that the state is able to carry out its functions, thereby meeting the needs of citizens of the state in the field of medicine, science, and the like. It should be noted that the approach used by judges of the UK in many court cases, is mandatory, despite the fact that the UK is a country with a case law system that allowed taxpayers to reduce the taxable base by any legal means, was completely refuted [27].

The main purpose of the GAAR rules is creating legal regulation that would make it impossible for taxpayers to operate, aimed at abusing the tax law, or is such that contributes to the spread of existing practices aimed at abusing the tax law. A key element of the GAAR rules is countering only actions aimed at abusing the tax law. It is this abuse that is unlawful activity of the taxpayer, in general, leads to a distortion of the spirit of tax legislation.

It should be noted that the implementation of GAAR rules does not mean that taxpayers should act not in the interests of their own interests, given the significant number of tax initiatives, but only aimed at combating activities that go beyond the main goal of legislation. For example, if the

taxpayer decides to create a business, it can do it, like registering a limited liability company or working as a private entrepreneur. These two regimes are completely different in nature and lead to different tax consequences. However, the GAAR rules do not apply in this case, because the legislator gave a choice to taxpayers on the methods of doing business, and this choice is fully consistent with the desire of legislators. On the other hand, if the taxpayer uses tax gaps in the legislation, for example, using privileges that he should not use from an economic point of view, because it does not bear significant economic risks to receive such benefits, there are reasonable grounds for applying the GAAR rules.

GAAR rules also apply to interstate relations. So, if taxpayers participate in tax planning schemes in several states using Double Tax Treaties, and their activities are aimed at creating conditions conducive to obtaining tax benefits without any economic justification, there is reason to analyze such transactions from the point of view of the GAAR rules [27].

UK law provides that the GAAR rules apply only in cases where the taxpayer's activity affects the tax liability for personal income tax, income tax, capital gains tax and other specific energy taxes.

In order to reduce the administrative costs of complying with the GAAR rules, a number of guarantees are provided that must be fulfilled by the tax authorities when applying the GAAR rules, namely:

- obligation to prove that the activities of the taxpayer is aimed at the abuse of tax legislation, including in the tax authorities;
- application of the test of «double understanding», which is discussed ahead;
- ability of the judiciary to use any evidence to understand the taxpayer is involved in activities aimed at abusing tax legislation.

The final decision on the recognition of a particular activity as such, aimed at abusing the tax legislation, is made by a special commission under the tax authorities.

If it is recognized that an activity aimed at abusing tax legislation, the tax authorities are obliged to retrain the actions of the taxpayer and determine the amount of tax liability payable, since the taxpayer would not take part in activities aimed at abusing tax legislation. In addition, taxpayers are required to pay fines for incorrectly determining the tax liability.

However, a key prerequisite for the application of GAAR rules is the existence of activities aimed at abusing the tax law.

In accordance with Article 207 (1) of Financial Act or other taxpayer action is an activity for the purposes of the GAAR rules, if, guided by the principle of reasonableness, the only or one of the objectives of such taxpayer activity is to obtain a tax benefit. Only taking into account all the circumstances of the case and, having made judgments, it is true that the taxpayer's activity is essentially aimed at obtaining tax benefits, can conclude that such actions are activities for the purposes of the GAAR rules.

The tax benefit comes in such cases (but not exclusively) as a reduction of the tax base, the return of part of the tax liability, tax evasion, etc. [27].

In addition, the activities of the taxpayer should be aimed at the abuse of the tax law. Abuse of tax law arises when the taxpayer's activities can't a smart implementation of such activities due to the presence of any other options for the implementation of such activities expressly permitted by the legislator, taking into account the principles of tax legislation created by the taxpayer dubious schemes as a result of its activities and the intent of the taxpayer to use gaps in tax legislation. Thus, when determining the presence or absence of abuse of tax legislation, it is necessary first analyze:

- definition of the «smart implementation of activities» concept;
- correlation of the consequences of the taxpayer's activities with the principles of tax legislation and the purpose of a specific regulatory act;
- existence of dubious schemes created by the taxpayer to obtain benefits from its activities;
- taxpayer's intent to use gaps in tax legislation;
- application of the «Dual understanding» test.

Intelligent implementation of activities means the analysis by the tax authorities of the taxpayer's activities from the standpoint of whether or not its activities are ordinary activities under a given tax law in a particular situation or not. For a better understanding of the concept of «smart implementation of activities», let's suggest turning to the following examples. So, if a company plans to update its fleet of aircraft, it can do it in several ways: by buying and selling such assets, leasing and financial leasing. If the decision is in favor of the sale, the company can raise funds from existing reserves, take a loan, or issue shares for the required amount. Any of the selected companies is an ordinary commercial activity, during which, among other things, tax consequences are taken into account (the goal is paying less taxes than the minimum). Thus, planning and assessing risks, including tax risks, is a reasonable implementation of activities and, as a result, GAAR rules will not be applied.

On the other hand, if a company uses gaps in tax legislation to finance group companies with significant income levels through various schemes, thereby reducing income before tax and bypassing the rules of «thin capitalization», there are unconditional grounds for applying GAAR rules.

The correlation of the taxpayer's activity with the principles of tax legislation and the goal of a specific regulatory act is the next element in analyzing the application of GAAR rules. So, each regulatory legal act in Great Britain has its own purpose, which is referred to in the preamble to this regulatory legal act. The activities of taxpayers should not contradict this goal, but on the contrary, fully comply with it.

The existence of dubious schemes created by the taxpayer to obtain benefits from its activities is the third mandatory element for applying the GAAR rules. For example, if a taxpayer fictitiously increases the company's

share in the capital to obtain the benefits of conventions on the avoidance of double taxation, there are unconditional grounds for checking the economic activities of such a taxpayer from the standpoint of applying the GAAR rules.

The taxpayer's intention to use gaps in tax legislation is the fourth mandatory element. This element is fairly easy to prove, because due to the presence of the tax benefit, which is achieved through the use of various schemes, the taxpayer's intent is automatically communicated.

It is worth noting that the «reasonable person» approach is not an innovation in English law, but, on the contrary, has operated quite successfully since 1837, when it was first used to make a decision on a criminal case. On the one hand, such subjectivism can very negatively influence the development of the legal system for which the prerogative of everything is the dominance of objectivism, however, on the other hand, it is through such subjectivism that legal consciousness is formed, which subsequently has a positive effect on the development of the state and law generally.

Considering the opinions of experts, the GAAR rules and the work of Graham Aarson in this area is an effective way to counter various tax planning schemes. Where there are no clear and specific rules that would allow to fight taxpayers' activities aimed at reducing the tax base, the GAAR rules allow it and, despite procedural moments, allow the state to fully perform its functions. Of course, on the other hand, critics of the GAAR rules note that the taxpayer has the right to organize the work of his business in any way, if this does not contradict the tax law. The tax evader is obliged to create effective taxation rules, and the state legislative bodies. If the latter are not able to perform their functions effectively, it is incumbent on the taxpayer to correct deficiencies in the activities of the legislator and limit the possibilities for owning a business. However, this position of critics has not been reflected at the legislative level of Great Britain, and for five years now the GAAR rules have been used by the tax authorities.

Ukrainian legislation to strengthen opposition to tax planning schemes, it is worth noting that, despite the fact that Ukraine is not a OECD member, the creation of a Working Group by the President of Ukraine in April 2016 demonstrates Ukraine's willingness to join the international community in the process of countering tax planning schemes.

The Tax Code of Ukraine provides for thin capitalization and transfer pricing rules, there is a bill on the rules of a controlled foreign company. Although this is not enough to comprehensively combat tax planning schemes, Ukraine gradually joins international initiatives and is gradually harmonizing national legislation under European standards.

According to the model of the direct implementation of the GAAR rules, in our opinion, the English version with a subjective criterion for assessing the activities of taxpayers is not quite suitable for Ukrainian realities. For the Ukrainian legislation, a more restrained approach is needed with a lesser involvement of the subjective impressions of the tax

authorities. Of course, completely dependent on subjective factors is impossible, but it's worth limiting them to a minimum.

Thus, the need to implement the GAAR rules is obvious, because it is thanks to them that it is possible to comprehensively and effectively deal with the activities of taxpayers aimed at reducing the tax base. In the context of globalization, the GAAR rules will allow tax authorities to respond promptly to taxpayers' abuse and to prevent the latter from receiving tax benefits. In addition, it will strengthen the effective collection of taxes and, as a result, the state will receive the proper amount of tax revenue, which will allow the state to effectively perform its functions.

To reduce the possibilities of tax planning is aimed at monitoring the activities of tax intermediaries in the United States. Tax advisors are responsible for using tax planning schemes by US multinational corporations. In addition, treaties between tax intermediaries and authorized tax compliance agencies are common in the United States. Such agreements are mainly used when the consultant's actions are unlawful, and their violation may be the reason for his further bringing to civil law and even criminal liability.

In all the considered countries, there is also the existence of a requirement for early disclosure of information on the use of tax planning schemes by international corporations, which is a message by a tax intermediary to authorized bodies before the end of the tax period about the use of certain funds. In the United States, the regime of controlled operations is also actively used, the essence of which is providing the tax authorities with data on those operations, the implementation of which may lead to the government not receiving much of the tax revenue.

In Japan, the situation is similar: professional organizations, which all tax advisers are required to be, act on the authority of official tax authorities and supervise the activities of their members and its regulation, develop and implement professional activity standards, deprive the right to operate by those consultants who commit violations etc.

In Australia, Canada, New Zealand, a special regime has been established for tax consultants to use tax planning schemes of international corporations. At the same time, sanctions for violations, except for those expressly provided for by the legislation, are put forward both to the taxpayer, who used the scheme proposed by the consultant (civil law measures), and to the consultant (disqualification to revoke the license). The range of responsibility measures is quite wide: from civil law (in relation to the taxpayer) to professional disqualification.

When studying the practice of protecting national tax systems from tax planning of international corporations, it is necessary to take into account the differences in tax systems, the economic potential, and the heterogeneity of national goals. Along with monitoring the activities of consultants and the introduction of specific taxes and fees, such initiatives as signing intergovernmental agreements used to reduce the number of cross-border

transactions that can be used for tax planning purposes by international corporations deserve attention. These include, in particular, the doctrine of abusive practice in the European Union and the General Anti-Avoidance Rules (GAAR). At the national level, an example of effective tax planning programs for international corporations is the Codified Doctrine of Economic Substance in the United States (often used in American courts), the Disclosure Rules in the United Kingdom and the United States, and Ethical Tax Standards in the United States.

Progressive, in our opinion, is the experience of countering the tax planning of international corporations in Canada. This country divides the tax planning schemes of international corporations into inter-regional, national, and international. According to this classification, interregional tax planning of international corporations is aimed at avoiding paying taxes in a certain region (province), national (traditional) concerns minimization or evasion schemes from regional (provincial) and federal taxes, while inter-national tax planning of international corporations is aimed at tax evasion at the regional and national levels, but not through one, but through several foreign jurisdictions. Such an approach to the tax planning system of international corporations determines the existence in the country of a multilevel system of counteraction operating with a large number of progressive means.

Canada today makes extensive use of the monitoring of tax planning schemes of international corporations, developing on its basis «Specific Anti-Avoidance Rules».

The strength of this approach is that all cases of tax planning of international corporations that have been discovered are investigated and studied. At the same time, a negative aspect is that, subject to the existence of this document, the activities of a significant number of officials are reduced only to the search for those schemes that have already taken place in the practice of Canadian enterprises. Thus, subject to a change in the approach to tax planning of international corporations, the subjects have the opportunity to apply it without sanctions from the state.

The use of international treaties and joint rules to combat tax evasion harmoniously complements the special rules. Along with the specific schemes that have taken place in the practice of Canadian companies, regulatory authorities draw attention to the practice of foreign countries, joining international treaties in the field of countering tax planning of international corporations.

The introduction of fines for the use of tax planning schemes for international corporations is another feature of the countermeasure system in Canada. Fines levied in Canada designed to compensate for damage that has been caused by actors at the regional or national level. At the same time, the amount of the fine exceeds the amount of savings that was achieved as a result of the application of tax planning schemes of international corporations.

The problem of the domestic economy today is that, in practice, not only the tax planning schemes of international corporations are widely

used, but also methods for reducing the tax burden on small and medium businesses. This leads to the fact that the government needs to form mechanisms that are not used in the practice of foreign countries, since the main focus abroad is on countering the activities of international corporations.

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Chapter 9

Legal support for the development of fair competition in Ukraine as a prerequisite for the country's integration in the world economic processes

9.1 «Fair competition» concept as a prerequisite for economic integration

Ensuring legislative conditions for the free and unhindered implementation of fair competitive competition is one of the leading directions in the implementation of state legal policy. Insufficient attention to this problem leads to deep negative consequences, in particular in the economic turnover, which, in the end, will affect the whole process of socio-economic development of society and the state. Considering this, it is necessary to create an integral system of legal regulation of competitive relations, based on a single theoretical concept of supporting and protecting fair competition in the market. Despite the urgent need, still in the domestic legal science there are a number of unsolved problems associated with the understanding of the features of the legal regulation of competitive relations. There is no common understanding of the nature of such a phenomenon as fair competition, factors affecting the process of its formation and implementation, features of state support and protection of fair competition, guarantees and mechanisms to counter and protect against unfair competition. The diversity in the views of scientists can be explained by the fact that in the science of economic law the main direction of analyzing the conditions for the formation and development of competitive relations was not a comprehensive study of this legal phenomenon as a whole, but the analysis of individual forms and manifestations of unfair competition; research into the causes and consequences of unfair competitive actions; shift of emphasis on the analysis of the economic, rather than the moral and ethical aspects of the formation and development of fair competition. Most of the research is aimed at justifying the need for state control and regulation of the market structure, the search for optimal forms and methods of government intervention

in economic relations. However, this approach does not allow to fully disclose the content of this phenomenon. The phenomenon of fair competition is that, on the one hand, it is a means of balancing the private and public interests of competitors, and on the other, the independent interests of all participants in competitive relations. Under the influence of fair competitive competition, not only standards of fair behavior of business entities in the market are formed, but also models of civilized interaction between participants of competitive competition, consumers and the state. All this creates the conditions for the formation of their own competition culture in the state, which in many cases is a more effective means of influencing competitors than any coercive measures sanctioned by the state, since such influence is based on a combination of moral and ethical and ethical and social worldviews Ukrainian nation. Only a combination of economic, legal and moral-ethical aspects of the functioning of competitive relations with the relevant government regulation and self-regulation can ensure the creation of an effective integrated model of regulation of fair competition in Ukraine.

Socio-economic transformations in Ukraine provide for the formation of a new economic system, the core of which is a competitive mechanism, in conjunction with government regulation, which is able to ensure the efficiency of resource allocation, accelerate the pace of economic development, and stimulate scientific and technological progress [1, p. 13]. In the conditions of the market transformation of the Ukrainian economy, the issues of protecting competition, preventing the abuse of market power by monopolistic structures and creating conditions for the development of fair competition in the market is particularly relevant.

Fair competition presupposes the existence in the business activity of a business entity of the principle of good faith, which is an important factor in resolving conflicts of interests on a well-organized basis, as well as mutual coordination of common interests and claims [2, p. 34].

Thus, competition in the economy, in fact, performs the function of balancing the private and public interests of participants in economic activities. The importance of the balance of public and private interests is due to the fact that the effectiveness of socio-economic transformations in our country, the formation of civil society institutions, and the standard of living of citizens depend on the optimal balance of public and private interests in economic activity.

As it is rightly noted in literature, the ratio of individual and public (private and public) interests gradually loses its discourse character [3, p. 343]. The problem of constructive unification and coordination of these interests in a concrete socio-economic concept comes to the fore. Public-law and private-law regulation of economic relations cannot exist separately from each other even in a concrete classification dimension, the order of any of them, taken separately on the basis of solving any issue, will certainly be exaggerated [4, p. 108].

The principle of linking (harmonious combination) with the help of the right of private and public interests in the economic sphere was once

correctly determined by K. Ushynskiy, noting that «...legal laws pursue the goal of dividing the economic interests of state members so that they while reaching their own personal interests, they at the same time attain the economic interests of the whole people, and on the other hand, combine these economic interests so that each member of the people, reaching this common public interest, in a full way attains its own» [5, p. 210].

Exploring the question of the relationship between public and private interests in competition, it is worth noting that the essence of the category «competition» is revealed through the direction of actions of participants in competitive relations to win the competition, based on the private initiative of a person operating in a competitive environment. The private interest of a business entity is in the desire to maximize profits and/or reduce the risks of entrepreneurial activity in a competitive competition. Taking this into account, we should agree with A. Bezukh, who points out that private interests and incentives play a major role in competition and entrepreneurship [6, p. 21].

In entrepreneurial activity, according to A. Vinnyk, a legitimate private interest in making a profit takes on particular importance: its satisfaction is the goal, the driving force of such activity, and the condition for achieving this goal is taking into account public interests (often this happens even unconsciously on the part of the entrepreneur) [7, p. 58]. The private interest of entrepreneurs (as well as market relations adequate to this interest) can be compared with a nuclear reaction, during which useful energy is produced, but in the absence of control over this process, the likelihood of harmful consequences is high [8, p. 6].

Thus, the focus of the activities of business entities on winning in competition can have both positive and negative consequences. Competition creates conditions for the free choice of goods, works and services, the realization of the needs and interests of both competitors and consumers, and the natural desire to win conditions the use of unfriendly or unfair competitive methods by certain business entities, resulting in the restriction or substantial deterioration of the conditions of implementation competitive competition. Therefore, there is a need for regulatory impact on competition from the state, which task is, on the one hand, to stimulate private initiative (interest), and on the other, to establish conditions under which the achievement (realization) of such interest will prevent or minimize damage to society, the state, consumers, the environment, etc. [7, p. 58–59]. At the same time, the state, as an independent subject of economic relations, is a carrier of common interests and realizes them, and all other economic subjects are carriers of private economic interests. Another important distinction of the state as an economic entity, follows from the previous one, is that all other economic entities own these or other means of production and consider the purpose of their activities to make a profit, is a form of realization of their property. The main purpose of the state as an economic entity is not to make a profit from property, but to regulate the activities of all other economic entities.

It is in this regulation is the economic activity of the state. This regulation has a special place due to the properties inherent only to it, among which are called such characteristic features as imperiousness of influence, distribution to the entire population, systemicity, etc. [9, p. 15]. One of the leading directions of state economic policy in accordance with Article 10 of the Commercial Code of Ukraine (CCU) is an antitrust and competition policy aimed at creating an optimal competitive environment for business entities, ensuring their interaction on the terms of preventing discrimination of some subjects by others, primarily in the area of monopoly pricing and by reducing the quality of services, promoting the growth of an effective socially oriented economy.

The need for state regulation of competition is due to its social importance in the economy. Competition is considered as a form of realization of private initiative and individual freedom in the economy. However, the emergence in the environment of firms and companies as a result of the realization of the fundamental freedoms of the individual by the phenomenon of an illegitimate private power, the goal of which is opposite to these freedoms, is a danger that is worth fighting. Since the private authority of a separate economic entity is illegitimate, it can suppress not only the economic freedom of other private individuals, but also the balance and impartiality of government decisions that are subject to its dominant influence; «...private power in liberal democratic societies is regarded as subject to abuse and therefore should be limited so that the decision of any private person, has influence on other persons, would be made only with the consent of the latter» [10, p. 2–3]. Thus, competition is considered as an antidote to private power, and is a threat to the foundations of building a democratic society. Competition makes it possible to achieve a socially fair distribution of the results of the functioning of the economy. Firstly, it provides low entry barriers to the market, that is, it gives everyone the opportunity to use their knowledge and skills in any industry and sphere of economic activity. Secondly, the competition excludes the receipt of monopoly rent, and, therefore, allows the market participant to receive a reward corresponding to its knowledge and skills.

In Ukraine, the state (represented by state authorities and administrative and management bodies) has always actively intervened in the activities of an enterprise, never acting as an outside observer or arbitrator. At the same time, quite diverse instruments were used, including a wide range of both economic methods and administrative levers [11, p. 124]. The role of the state in a market economy is, firstly, in solving those problems that are unbearable and beyond the control of a competitive market, and secondly, in creating conditions for the effective operation of the market mechanism and ensuring its safety [12, p. 203]. The negative trend of state regulation in recent years is the growing number of cases when the personal interests of individual government officials and oligarchs, through the use of control measures and influence on individual government officials, replace common public interests, which leads to abuse of power and negative economic

consequences for individual subjects, facilities and consumers, and for society as a whole. In accordance with Article 18 of the Commercial Code of Ukraine, the state implements an anti-monopoly-competitive policy and contributes to the development of competitiveness in the field of economic activities on the basis of national programs approved by the Verkhovna Rada of Ukraine on the proposal of the Cabinet of Ministers of Ukraine. The state policy in the field of economic competition, the restriction of monopolism in economic activity and the protection of economic entities and consumers from unfair competition is carried out by authorized state and local government bodies. The goal of competition policy is protection of consumer welfare by maintaining a high level of competition in the market. Competition should lead to lower prices, greater choice of products, technological innovations, and all this is in the interests of the consumer.

The crisis serves, on the one hand, to push the market away from unfair competitors, and on the other, to increase the possibility of using illegal competition methods. After all, the methods of competition between enterprises during the economic crisis intensified – everyone wants to survive. And the more intense the competitive competition is the more often economic entities use inadequate competitive methods and the stronger the temptation to gain advantages by unfair methods. It is worth noting that quite often it is possible to hear the opinion that the crisis is a consequence of competition. However, in our opinion, it was not competition, but unscrupulous actions and abuse of power by certain powerful business entities in the market, including the financial one that led to an increase in social insecurity and an increase in crisis phenomena in the economy. Further development of the economic competition protection system based on the recognition of the need to create a competition culture, balancing private and public interests, legal and moral norms, business practices and morality, expanding the sphere of self-regulation in the field of competition can become the basis for the formation of a qualitatively new and effective social models in Ukraine.

Exploring the issues of legal regulation of economic competition, we were faced with the fact that in one of the studies, scientists did not try to define the concept and content of fair competition, although each of them pointed to the need to ensure the conditions for its development and protection. Thus, for most researchers, fair competition acts as a definite ideal or goal of legal regulation, but there is no definite objective form of implementation. The lack of understanding of the essence of the concept of fair competition does not provide an opportunity to determine the criteria for its evaluation and, thus, to provide an effective mechanism to protect competition.

In the process of fair competitive competition, private interests of business entities are realized. The presence of competition allows business entities to present their goods, works and services on the market, but only fair competition provides an opportunity to win the competition the best and through their own efforts. In this case, the winner of the competition gets its share of

the profits and can continue to improve its products and services to win in the future. Competitors, lost in the competition for the consumer, on the one hand, receive a certain standard of goods and services, which requires the market, on the other – have the opportunity to attract funds, other production and intellectual resources to improve their products and services to win in the future. The consumer, although not directly involved in the competition, acts as its beneficiary. It is the consumer who gets the opportunity to choose the best quality product, best suits its needs, and with a standardized product it can choose the product at the best price. The state in competitive relations acts in two ways: as a business entity represented by state-owned enterprises that acquire their share of profits in a fair competition, and by obtaining profits from the effective use of state-owned property, placing state orders, and implementing state projects. On the other hand, the state, with fair competition, receives a fair portion of the income of economic entities as taxes and fees, which it can direct to the implementation of state and social projects, establishing an effective dialogue between the state and society. In addition, the domination of fair competition in the market contributes to reducing the level of offenses both by the authorities and business entities, and also ensures a high level of implementation of administrative and judicial decisions by offenders who intend to continue their business activities in the market. The implementation of the principle of good faith in competitive competition makes it possible to create a culture of competition in society, significantly reduce the level of offenses, effectively protect the rights of economic entities and consumers, reduce corruption in government bodies, establish public dialogue in the country, reduce social and political tensions. All this contributes to the formation of a positive innovation, investment and economic climate in the country and an increase in the state rating at the global level.

The positive essence of the principle of good faith in competition, according to P. Kharchenko, is expressed in the establishment of certain standards of proper behavior of business entities in competitive relations regulated on the basis of legal norms, commercial and fair practices. In accordance with the extent to which a particular state ensures and ensures that business entities comply with legally binding standards of good faith, it can be argued that business activities in this state meet commercial and fair customs [2, p. 18].

In addition, the culture of competition creates and maintains conditions for the development of fair competition in the market, involves the socially active behavior of the enterprise in the market, which leads to the redistribution of income and the direction of some of them to the implementation of social objectives by business entities (charity, social projects), which ultimately leads to a reduction of social tension in society and the formation of civilized relationships between consumers and producers. On the other hand, the state creates conditions for the formation and protection of fair competition through the formation of legal and organizational foundations for protection against manifestations of unfair competition, dumping,

unfriendly actions on the part of individual business entities and the state. The system of these measures consists of: regulatory regulation; monitoring the state of the market and its compliance with the rules established by the state to ensure economic competition in order to prevent violations, restoring market conditions in the event of violation of these rules and taking appropriate measures against violators [13, p. 36].

Fair competition is a means of balancing the individual interests of commodity producers for profit and government interests in the implementation of commercial and social projects by business entities; interests of producers and consumers about the best conditions for the acquisition and sale of goods; states – making profit from the effective use of state-owned objects, receiving income from taxes and fees, implementing the social function of redistributing super-profits of unscrupulous competitors to consumers (reducing tariffs, providing benefits to certain categories of consumers), meeting the needs of consumers, protecting the interests of socially unprotected segments of the population.

At the same time, fair competition is the embodiment of certain moral, ethical and socio-historical ideas about good and evil in economic activity, and defines the limits of legal behavior, in particular in competition. S. Demchenko reveals the essence of the term «good faith» through the concept of «good» and «conscience». He notes that good is the highest, absolute universal value, participation in which fills a person's life with meaning, it becomes self-valuable, and does not serve as a means to achieve other goals; ideas of good are in organic relationship with the ideal of society and the individual [14, p. 293], and the conscience is a manifestation of the moral self-consciousness of the individual, its ability to exercise moral self-control, independently formulate moral duties for itself, require them to perform them and evaluate their actions [14, p. 300]. Thus, the good faith of competition is the embodiment of the moral and ethical ideals of goodness and justice, the implementation of the rule of law in economic (competitive) legal relations.

In the literature, the principle of «the rule of law» is considered as the principle of the «rule of natural law», thus denying the positivist approach, which recognizes the rule of laws formulated in accordance with the will and consciousness of people. According to A. Kostenko, how people will apply the law depends on the state of their will and consciousness. This state is determined by the social culture of people, by which we should understand the measure of the consistency of will and consciousness with the natural laws of social life, of their ideology. In particular, unnatural legal ideas, that is, contrary to the rules of natural law, give rise to a complex of arbitrariness and illusions in people, which manifest themselves in the form of abuse in the application of legislation [15, p. 88]. In the opinion of A. Dovgert, the principle of the rule of law acquires a systematic meaning when we distinguish between law and rules, because this principle can't exist outside the doctrine of natural law [16]. At the same time, consideration of the principle

of the rule of law outside the rule of the Constitution of Ukraine and the rules, according to V. Tatsii, is the path to lawlessness and permissiveness, and the recognition only of the rule of laws outside the systemic understanding of the rule of law principle is the way to accept unfair, inhumane rules and others regulatory legal acts [17, p. 16].

The rule of law is the rule of law in society. The rule of law requires the state to translate it into law-making and law-enforcement activities, in particular into rules, which in their content should be imbued primarily with ideas of social justice, freedom, equality, and the like. In accordance with the Decision of the Constitutional Court of Ukraine dated November 2, 2004 No. 15-rp/2004, the principle of the rule of law is recognized and valid in Ukraine. One of the manifestations of the rule of law is that law is not limited only by law as one of its forms, but includes other social regulators, in particular the norms of morality, traditions, customs, etc., which are legitimized by society and are due to the historically achieved cultural level of society. All these elements of law are united by quality, corresponding to the ideology of justice, the idea of law, which is largely reflected in the Constitution of Ukraine. Such an understanding of the law does not give grounds for its identification with the rule, which sometimes can be unjust, including limiting the freedom and equality of the person. Justice is one of the basic principles of law, is crucial in defining it as a regulator of social relations, one of the universal dimensions of law [18].

K. Pysenko refers to the moral and spiritual nature of competition law, which indicates that it is based on the religious and moral imperatives of good and evil. In the moral and religious sense, the purpose of competition law is prevention and elimination of anticompetitive ways of unjust enrichment, as well as to create certain conditions for the application of moral and religiously sound methods of economic activity or righteous enrichment, which is possible in a religious value system [19, p. 95].

D. Tuzov, exploring the paradox of the existence of moral aspects of a market economy, points to contradictory trends in the development of public morality in modern crisis conditions. In particular, Western morality involves obtaining public recognition solely through conscientious work, which, according to the author, turns society to Protestant morality, elements of which are honesty, modesty, dedication to work, efficiency, self-control and rationality. The linkage of morality and profitable business forms the moral foundations of a market economy, these norms support the corporate spirit and give additional content to competitive competition [20, p. 173]. Considering this, the majority of entrepreneurs are convinced of the need to observe ethical standards of entrepreneurial activity, the possibility of the existence of fair and fair competition, and the fairness of the market system. On the other hand, a civilized society presupposes the existence of an active citizenship position of citizens, as well as the socially responsible position of entrepreneurs and the state, who exercise the natural rights of citizens.

At the same time, the desire for self-realization pushes entrepreneurs to search for new areas and forms of economic activity that do not formally violate the conditions of competitive competition and only in some cases can be considered as a form of legitimate abuse of the right to competition.

The study of the problems of legal regulation of fair competition gives us the opportunity to assert that in Ukraine, repeated attempts by lawmakers and representatives of the Antimonopoly Committee of Ukraine to form more or less specific rules of fair competition are not crowned with success. The rules of professional ethics are effective mechanisms for introducing principles of good faith of competing competitors, are developed by entrepreneurs in collaboration with chambers of commerce and agree with the Antimonopoly Committee of Ukraine, recommendations of advisory bodies and international non-governmental organizations and unions, decisions of the European Court of Human Rights. In our opinion, the adoption of the Law of Ukraine «On the rules of ethical behavior» has an important step in shaping approaches to determining the standard for assessing the behavior of participants in competitive competition. The provisions of this law apply to persons authorized to perform the functions of the state or local self-government during the exercise of their official duties. However, the criteria for evaluating their behavior may, under certain conditions, be extrapolated to business entities participating in a competitive contest, or they may be taken into account when developing their own rules of fair (ethical) behavior in a certain field of business.

Considering the problem of legal regulation of fair competition, it is necessary to pay attention to the fact that the origins of the concept of fair competition are laid down in Roman law and are a form of reception of the principle of bona fides in competition law. The recognition of the paramount importance of the principle of good faith in the actions of participants in economic turnover necessitated the protection of their rights and legitimate interests from manifestations of unfair competition. And despite the fact that each of the countries has its own unique system of protection against unfair competition, in most of them unfair competition is considered as a form of abuse of right, delict or form of unlawful behavior, as opposed to fair competition, is protected by international treaties, current competition legislation and the customs of business turnover [21, p. 7].

The use of the concept of fair competition is associated with the prevailing attitude in society towards the basic moral and ethical categories of good and evil, sin and good faith, good faith, guilt, bad faith. Understanding the essence of the concept of «good faith» has not only technical and legal, but also moral and ethical ideological significance, especially in the sphere of competitive relations, are still being formed. At the same time, most scientists believe that the moral, ethical and evaluative nature of the category of good faith rules out a rigid definition of this concept in a law, contract or court decision. And we should agree with this, but the presence in the legal system of evaluative concepts presupposes the existence of a certain standard or

ideal on the basis of which decisions are made. In the aspect of researching the notion of «fair competition», it is interesting to say a German researcher E. Ehrlich, given by I. Pokrovskiy regarding the definition of the notion of good faith: «What is the German right to abuse the right, in what cases is a violation of Treu und Glaube, or good morals «– in this we now do not know that the law does not say anything in it; we know this only from court decisions in a hundred years» [22, p. 275]. A similar position is expressed by B. Zeller, who, as a result of his study of the category of good faith, concluded that despite its «seductive simplicity», good faith is an elusive concept [23].

In our opinion, if judges are given the opportunity in decisions to deviate from a rigid rule of law, justifying it with justice – the main principle of judicial procedure and justice, then good faith can be investigated, proved and fixed in court decisions on specific cases, the analysis of which conditions can be the basis for the formation of doctrinal ideas about the good faith or bad faith behavior of business entities in economic activities and consumers. However, are representatives of state and judicial authorities interested in the domination of good faith, in particular in economic activity, is a more rhetorical question than a legal one.

A. Bogdanova notes that the complexity of the problem of good faith is primarily due to the fact that good faith reflects a certain system of ideas prevailing in society about the morality of the behavior of the subject of law in civil circulation [24, p. 7]. Professor P. Elzbacher also wrote about the ethical nature of good faith, who wrote: «the question of whether a certain course of action contradicts the rules of a good conscience is a moral issue» [25, p. 489]. V.Prymak, examining the legal problems of the relationship between good faith and guilt, determines that good faith and bad faith as signs of the subjective aspect of human activity are embodied in appropriate or inappropriate from the point of view of public morality and written law approaches to the organization and volitional regulation of the functioning of the intellectual sphere, definition intensity and direction of volitional efforts of individuals and legal entities. The corresponding moral and legal assessments reflect the idea of morally impeccable and, on the contrary, reproachful from the point of view of the moral foundations of society, actions formalized in legal norms in a particular legal situation [26, p. 248].

In Russian and Soviet legal science, an ambiguous attitude towards the notion of good faith was formed – from its unconditional recognition and more cautious assessments of this phenomenon to denial. I. Pokrovskiy, analyzing the notion of good faith, opposed the expansive interpretation of this notion, in particular in court decisions, referring to the fact that using a broad approach to defining the notion of «good faith» can lead to full judicial control over the entire civil circulation, based on subjective and arbitrary ideas of «justice», «social ideals» and others [22, p. 261]. However, only judges are independent and impartial and they should be given the right to evaluate good faith or abusive behavior of a specific participant of economic relations.

V. Grybanov believed that the concept of «good conscience» and «good morals», which are used in bourgeois law, are «rubber» rules, which provide an opportunity to significantly expand the boundaries of free judicial discretion and thus go beyond the limits of legality [27, p. 21]. Compliance with the requirements of legality means that when officials exercise their power functions, there is no place for subjectivity and arbitrariness; it should be borne in mind that legality reflects the fact that the behavior of subjects of competitive legal relations is in compliance with the requirements of current competition law. Legality is inextricably linked with democracy. This connection is characterized primarily by the fact that the rule of law is an integral element of democracy, of real democracy. Legality is intended to protect social relations, social values of society, justice. Thus, if the courts become truly the organs of justice, the domination of integrity and justice in the name of Ukraine, then there will be no basis for fear of possible abuses and going beyond the «limits» of free judicial discretion.

Modern scientists are trying to combine objective and subjective approaches to the definition of the concept of «good faith». In particular, A. Bogdanova notes that good faith should be understood as a system of ideas about morality of behavior established in society and recognized by law, custom or judicial practice in the process of obtaining, exercising and protecting rights and fulfilling duties. Morality of behavior is evaluated by contrasting the categories of good and evil. Behavior, reflecting the public's ideas about good, should be considered conscientious, and such that corresponds to the public's view of evil – unfair [24, p. 26]. P. Kharchenko, examining the mechanisms of protection against unfair competition, notes that the concept of «fair competition» and «unfair competition» are inter-related and complementary, so it is important to understand that a correct understanding of the essence of the concept of unfair competition plays a crucial role in determining the fact of fair competition and, on the contrary, to determine the fact of unfair competition, it is important to correctly understand the essence of fair competition [2, p. 23]. M. Lukianenko, analyzing the concept of good faith, comes to the conclusion that in an objective sense, good faith means a requirement for the behavior of participants in legal relations, which follows from specific legal norms. The subjective aspect in the understanding of good faith is associated with the actions of the subject, which must meet the following criteria as good faith, respect for rights, loyalty to obligations. This indicates that the subject has a psychological position, an internal understanding of the need for a specific behavior [28, p. 369].

Let's note that paragraph 6 of Article 3 of the Civil Code of Ukraine relates good faith along with reasonableness and justice to the principles of civil law. In accordance with Articles 12, 13 of the Civil Code of Ukraine, participants in civil legal relations exercise their rights freely and at their own discretion. However, it is not allowed to use civil rights in order to unduly restrict competition, abuse of a monopoly position in the market, as well as

unfair competition. According to Part 2 of Article 5 of the Commercial Code of Ukraine constitutional foundations of the legal economic order, among other things, constitute: ...the right of everyone to entrepreneurial activities not prohibited by law, the definition of legal grounds and guarantees of entrepreneurship exclusively by law, ensuring the state protects competition in entrepreneurial activities, preventing the abuse of a monopoly position in the market, unduly restricting competition and unfair competition, the definition of competition rules and antitrust regulations exclusively by law.

In order to ensure the normal and effective development of the socio-economic system of our state, there must be fair and civil relations between business entities competing and their compliance with certain rules of behavior in the market. In order for freedom of competition not to turn into anarchy, we need certain guarantees and mechanisms aimed at maintaining fair and equal conditions for all market participants of business and competition. A special role in this process is played by the state, establishing the principles of fair and lawful competitive behavior in the norms of competition legislation. At the same time, attention should be paid to the fact that the formation of effective competitive relations depends largely on the interaction of individual business entities in the market, corporate culture, rules of professional ethics, business practices, the formation of which is influenced by the entrepreneurs themselves.

Thus, fair competition can be defined as such a system that has developed in society, recognized by law, customs, judicial and administrative practice, about the proper behavior of business entities in the market in competitive competition, which allows the business entity to freely compete and win the competition without violating the rights of third parties.

Fair competition is a means of balancing the private and public interests of economic entities, consumers and the state in a competitive relationship, and at the same time is recognized by all participants in the economic turnover and is protected by the state. Implementation of an effective state policy in the field of economic competition can only be effective if there is a comprehensive approach to this problem. Taking this approach into account, the state applies various legal mechanisms and regulators. On the one hand, legal means are used that are directly aimed at stopping and prohibiting various unfair acts. On the other hand, regulatory acts aimed at creating and maintaining conditions of fair competition containing a range of economic and administrative measures, in particular, de-monopolization, antitrust regulation, support and development of small and medium businesses, have an important influence on the development of fair competition in the market, introduction of competitive foundations in the field of public procurement, state control over the provision of state assistance, protection of the interests of national goods producers from dumping and other unfair actions of foreign contractors, effective pricing, tax and customs policies, and the like.

The development of fair competition in the market is impossible without the formation of a self-regulation system based on the interaction of entrepreneurs. The basis for such self-regulation can be the rules and principles of professional ethics in various sectors of the economy; proposals, decisions and conclusions of associations and other non-governmental organizations, aimed at the formation of common approaches to counter unfair competition and the development of fair competition in the market; promulgation of the case law of international judicial bodies on cases of protection against unfair competition; expansion of the arbitration scope in the field of protection against unfair competition.

9.2 Genesis of legislative support of fair competition in Ukraine

Adoption of the principle of good faith in competitive competition is impossible without its adequate consolidation and implementation in the corresponding system of normative acts constituting the competitive legislation. The history of the formation and development of competition legislation in different countries has its own significant differences related to the need to take into account national peculiarities of competitive competition development, peculiarities of legislative protection of competition, traditions and customs of business turnover, administrative and judicial practice of law enforcement bodies. It should be noted that in the theory of modern Ukrainian jurisprudence there is no single position regarding the definition of the content and structure of competition law. Most researchers use different terminological constructions to determine the totality of legal norms that ensure the conditions of fair and fair competitive competition. Along with the term «competition law», such as «competitive law» [29, 30, 31], «antitrust law» [32, 33, 34], «legislation on the protection of economic competition» [35], «antitrust and competitive» [36, p. 49–51], and so on are used. Also, there are no uniform approaches to determining the substantive content of competition law. Some scientists point out that competition legislation covers only norms aimed at countering unfair competition [37], others – to all norms of current legislation governing relations in the field of economic competition [38, p. 79].

Exploring the features of the development of legislative regulation of economic competition in Ukraine, it should be borne in mind that, on the one hand, the sources of competition law are regulations, international treaties, judicial precedents or business practices related to the suppression of unfair competition, on the other hand, protection from manifestations of monopolistic activities. In other words, the competition legislation contains the rules governing the protection of both unfair competition and monopolistic activity. The analysis of the norms of the current competition legislation makes it possible to argue that not all of them are aimed at ensuring

the development of fair competition. It is necessary to agree with the researchers, who indicate that despite the single subject of regulation – competitive relations, antitrust laws and laws on protection against unfair competition are different directions [39, p. 79; 33, p. 12; 32, p. 11, 40, p. 115 – 117]. The purpose of antitrust laws is ensuring the existence of competition in general, counter monopoly trends and control over market structure. While ensuring the quality of competition, the formation of fair competitive practices, ensuring loyal, good (honest) business practices and the prohibition of unfair competition – the goal of legislation to protect against unfair competition or competition law (in the narrow sense).

An important point in this case is that it is impossible to ensure the existence and development of fair competition without the proper regulatory influence of antitrust laws. In addition, although some researchers [32, 33] point to the need for a clear distinction between unfair competitive actions and monopolistic practices, it is impossible today to definitively distinguish between these two institutions of competition law. This is due to the significant interpenetration of the rules of competition law and the complex regulation of competitive relations. The history of the formation and development of competition legislation in different countries has its own significant differences related to the need to take into account national peculiarities of competitive competition development, peculiarities of legislative protection of competition, traditions and customs of business turnover, administrative and judicial practice of law enforcement bodies. It should be noted that in the theory of modern Ukrainian jurisprudence there is no single position regarding the definition of the content and structure of competition law and law. Most researchers use different terminological constructions to determine the totality of legal norms that ensure the conditions of fair and fair competitive competition. Also, there are no common approaches to determining the content of competition law. Some scientists point out that competition legislation covers only norms aimed at countering unfair competition, others – all norms of current legislation governing all relations in the sphere of economic competition.

Exploring the features of the development of legislative regulation of economic competition in Ukraine, it should be borne in mind that, on the one hand, the sources of competition law are regulations, international treaties, judicial precedents or business practices related to the suppression of unfair competition, on the other hand, protection from manifestations of monopolistic activities, regulation of activities of subjects of natural monopolies, control over the processes of provision and use of state assistance for management subjects and maintenance of competitive principles in the implementation of public procurement.

The impetus to the creation of a national system of regulation and protection of competition in Ukraine was the proclaimed policy at the state level to carry out economic reforms of the market direction, defined in the

Declaration on State Sovereignty of Ukraine [41] and the Law on Economic Independence of the Ukrainian SSR [42].

The first special law aimed at developing and supporting the competitive environment in Ukraine was the Law of Ukraine of February 18, 1992 on Restricting Monopolism and Preventing Unfair Competition in Entrepreneurship, which laid the legal basis for restricting and preventing monopolism, preventing unfair competition in entrepreneurship and exercising state control over the observance of antitrust laws [43]. It should be noted that the first competitive Law of Ukraine was complex. It identified the basic concepts and categories of competitive competition, the main types of violations in the field of competition, the organizational and procedural foundations of antimonopoly activity. It was in the Ukrainian Law that for the first time (unlike the corresponding Law of the USSR), the violation of unfair competition was recognized as an offense. The law did not contain a definition of the concept of «unfair competition», it only listed actions that included unfair competition and were subject to prohibition.

The law also stipulated that state control over the observance of anti-monopoly legislation, protection of the interests of entrepreneurs from abuse of monopoly position and unfair competition is exercised by the Anti-monopoly Committee of Ukraine in accordance with its competence. Most of the articles of the Law were devoted to the creation and functioning of the Committee. However, the specific tasks and functions assigned to it necessitated the adoption of a special regulatory act, which was the Law of Ukraine «On the Antimonopoly Committee of Ukraine» [44]. The law defined the main tasks, competence and powers of the Committee, the legal status of its officials and territorial units, and also resolved the issue of material, technical and socio-economic support of the Antimonopoly Committee of Ukraine.

Important for the development of competition legislation is little confirmation of the need to create favorable conditions for the effective functioning and protection of fair competition at the constitutional level (Article 42 of the Constitution of Ukraine) by providing guarantees from the state to protect competition in business and recognition of the inadmissibility of activities aimed at monopolization and unfair competition.

Along with the improvement of anti-monopoly regulation of business relations, the growth in the number of enterprises, as well as corporatized and privatized enterprises, the priorities of state regulation of business activities also changed. It is worth emphasizing that it is unfair competitive practices that cause significant losses in competition for their focus, mainly on the unfair use of intellectual property or violation of contractual ties and the disclosure of commercial secrets. In addition, unlike other violations of competition, manifestations of unfair competition are constantly changing, they are quite difficult to codify. As you know, Ukraine has always had a sufficiently powerful scientific and technical potential; therefore, the widespread unfair competition created and poses a threat to the economic and social

development of the country. At the same time, to provide effective protection against unfair competition only on the basis of the provisions of Article 7 of the Law of Ukraine «On the restriction of monopolism and the prevention of unfair competition in business» is impossible. So, on June 7, 1996, the Verkhovna Rada of Ukraine adopted the Law «On Protection against Unfair Competition» [45], which provided a general definition of the concept of «unfair competition», as well as a list of actions recognized as unfair competition. A feature of the Law of Ukraine «On Protection against Unfair Competition» was also the fact that its goal was protecting both business entities and consumers from unfair competition. According to the Law, the State Control over the observance by business entities of the rules of competition law should be exercised by the Antimonopoly Committee of Ukraine.

A new stage in the development of competition legislation was the adoption in 2001 of the Law of Ukraine «On the Protection of Economic Competition», which determined the legal basis for supporting and protecting economic competition, limiting monopolism in economic activity, and ensuring conditions for the effective functioning of the Ukrainian economy based on the development of competitive relations. Thus, the Law provides a legal presumption of the positive impact of competition between entrepreneurs on the economy as a whole, and competition is declared as a fundamental factor for development. The Law of Ukraine «On the Protection of Economic Competition» is complex. Its norms are aimed at ensuring the conditions for creating and developing competition in commodity markets, developing fair competition, monitoring the processes of monopolization and economic concentration in Ukraine, opposing the commission of monopolistic violations and improving state protection of economic competition in Ukraine. It should be noted that the Law is based on a qualitatively new for Ukraine basis of state regulation and protection of economic competition. The basis of this regulation was a creative combination of the principles of prohibition and control in the field of economic competition.

Significant influence on the development of the entire legal system of Ukraine had the adoption in 2003 of the Civil Code of Ukraine and the Commercial Code of Ukraine. Most researchers of the problems of legal regulation of competitive relations point to the decisive importance of the norms of the Commercial Code of Ukraine for the development of not only competition, but also the entire economic system in Ukraine. As G. Znamenskyi rightly noted, in the conditions of the market, economic activity in many of its elements is transformed. It becomes free within wide limits determined by the general «market rules» and laws. It is based on economic initiative, entrepreneurship, commercial approach and risk. The specific function of the law is ensuring the interest of business entities in improving production efficiency, encouraging entrepreneurship and initiative. Separate norms and their totality should be aimed at new motivation in the actions of business entities both in horizontal and vertical relations. But civil legislation should receive

a «humanitarian» orientation by ensuring the material and spiritual interests of a person and a citizen [46, p. 300]. The foregoing necessitates a parallel, but separate codification of the norms of civil and commercial law. The peculiarity of the regulation of competitive relations was the fact that some of the rules aimed at ensuring fair competitive competition were set out in the Civil Code of Ukraine, and the rest in the Commercial Code of Ukraine.

Thus, in the Commercial Code of Ukraine laid the political, economic, social and legal framework for the development of fair competition in the market. However, the adoption of the Commercial Code of Ukraine led to significant conflicts in law enforcement through significant differences in the legal regulation of competitive relations by the laws of Ukraine «On the Protection of Economic Competition» and «On Protection against Unfair Competition» and the Commercial Code of Ukraine. The problem was that the provisions of chapter 3 («Limiting monopolism and protecting business entities and consumers from unfair competition») and chapter 28 («Responsibility of business entities for violating antitrust laws»), as well as a number of basic concepts of the current Commercial Code Ukraine reproduce the norms of the Law Of Ukraine «On limiting monopoly and preventing unfair competition in business», became invalid due to the adoption and entry into force of the Law of Ukraine «On the Protection economic competition». In our opinion, the solution of this complex and ambiguous problem is possible on the basis of theoretically grounded and methodologically well-thought-out unification of the norms of the Civil Code of Ukraine. Considering that the norms of this Code are more general in nature than the provisions of the laws of Ukraine «On the Protection of Economic Competition», «On Protection against Unfair Competition», the Commercial Code of Ukraine should set out only norms that establish general rules for the implementation of competitive competition, promote the formation of fair competitive behavior of business entities and the market, as well as general prohibitions (general delicts) of the main forms of monopolistic activity and unfair competition are the measures of responsibility applied to violators. However, these norms should be formulated sufficiently broadly to ensure the possibility of directly applying the norms of current legislation in short-term competitive legal relationships. All the features and nuances of ensuring fair competitive competition should be comprehensively enshrined in special rules of competitive legislation, in particular in the provisions of the laws of Ukraine «On the Protection of Economic Competition» and «On Protection against Unfair Competition» and others.

The leading role in the development of a fair competitive relationship has recognition of good faith, rationality and justice as common principles and meaning of civil legislation in paragraph 6 of Article 3 of the Civil Code of Ukraine.

The processes of globalization of economic and social life have led to the fact that the problem of creating an effective mechanism to protect competition from any restrictions has reached a qualitatively new international level.

The entry of Ukraine into the WTO on May 16, 2008 necessitated taking into account the principles of fair competitive competition operating within the WTO [47]. It is worth emphasizing that at the global level there is a gradual institutionalization of various aspects of competition policy. Thus, the WTO agreement on the application of anti-dumping procedures allows the governments of WTO member countries to apply appropriate measures against goods imported into the country at dumping prices in cases where it causes material damage to domestic producers in this area.

A special place among the international agreements of Ukraine belongs to the Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their member states, on the other. In accordance with this Agreement, Ukraine and the EU agree on national competition laws; refrain from providing state assistance to enterprises, producing goods or providing services that distort or threaten to distort competition; exchange information about their own assistance schemes; do not take any measures that can distort trade between countries; within the framework of the Cooperation Committee, consult on competition issues; assist in the development of competition rules.

In accordance with Article 256 of the Agreement Ukraine undertook to bring the competition legislation into compliance with the requirements and standards of the EU *acquis* within three years. In addition, each Party to the Agreement has pledged to adjust the operating conditions of state-owned monopolies of a commercial nature within five years from the date of entry into force of this Agreement in such a way as to ensure that there are no discriminatory approaches to the conditions under which goods are purchased and sold to individuals and entities of the Parties; to ensure the conditions of free and open competitive competition in the implementation of public procurement (as required by Chapter 8 of Section IV of the Agreement), the provision of state assistance (Chapter 2 of Section X of the Agreement) and so on. In order to implement the obligations assumed by Ukraine, over the past years, the laws of Ukraine «On State Assistance to Business Entities» and «On Public Procurement» were adopted.

The competitive legislation of Ukraine is constantly evolving, the system and institutional structure of antimonopoly authorities are being improved, the scope of application of competition legislation and law is expanding, new norms and institutions of competition law are being formed. The first decade of the 21st century has significantly changed the approaches to regulating relations in the sphere of competition. The Ukrainian economy has ceased to be closed, the process of accelerated globalization of economic and social ties has begun, which has led to the need to improve the competitive legislation of Ukraine on the control of agreements and collusion between entrepreneurs, in particular regarding hidden cartel collusion, information exchange between economic entities, control of economic concentration processes, government regulation in the field of public procurement and government assistance.

The processes of globalization of economic and social life have led to the fact that the problem of creating an effective mechanism to protect competition from any restrictions has reached a qualitatively new international level. Today, the directions for the further development of competition law are determined at the international level.

Ukraine's accession to the WTO on May 16, 2008 necessitated taking into account the principles of fair competition operating within the WTO. It is important to note that at the global level, there is a gradual institutionalization of various aspects of competition policy. Today, the basic rules of fair competition are contained in such agreements: Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) – Article 22 (Protection of geographical indications), 39 (Protection of classified information), 40 (About the tools that WTO member countries can use in response to anti-competitive abuses of intellectual property rights); General Agreement on Trade in Services (GATS) – Article VIII (On the Inability to Abuse Market Power by Monopolies and Exclusive Service Providers), IX (On Interstate Consultation on Business Practices, Restrains Competition) and XIV (General Exceptions); Trade-Related Investment Measures Agreement (TRIMS) – Article 5 (Communications and transitional measures) and 9 (On the Council for Trade in Goods as a body that considers the need to supplement the Agreement with provisions on competition policy).

At the same time, the development strategy of competition rules and law was based on expert assessments of the leading economic organizations in the world, in particular the OECD and UNCTAD. It should be noted that the main directions of improvement of the current legislation were identified in the expert conclusions and recommendations of the OECD (2008 and 2016) and UNCTAD (2013).

Some provisions of these recommendations have already been implemented, a number is in the process of implementation.

9.3 EU-Ukraine Association Agreement as an integration model for harmonization and unification of competition rules and law

The Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their member states, on the other, concluded on 07/26/2014 [48, 49], recognizes and defines ways to eliminate legal gaps in the process of implementing the norms competition rights in the national legislation of Ukraine. Moreover, the text of the Agreement contains specific references to EU regulations, which should be included in the legislation of Ukraine [50, p. 35 – 40]. At the same time, let's note that the norms are subject to implementation in the current competitive legislation of Ukraine not only in Section X Competition, but

also in other parts of the Agreement, in particular, providing conditions for the development of competition in the energy and gas sector, improvement of legal regulation in the public sector (government) procurement (ensuring compliance of the current legislation of Ukraine with the requirements of Directive 2004/18EU), protection of intellectual property rights, in particular in the field of legal protection geographic symbols and others [51].

The main gaps that should be eliminated in the process of implementation of the Association Agreement should be divided into the improvement of substantive and procedural law [50, p. 35]. The main requirements for the adaptation and implementation of EU competition rules in the competitive legislation of Ukraine can be grouped in accordance with the scope of legal regulation into: legal regime of anticompetitive concerted actions, control over concentration, activity of state monopolies and state assistance.

The first condition for improving the material norms of the Ukrainian legislation is its approximation in the sphere of regulating the regime of exceptions from anti-competitive vertical agreements. Article 256 of the Association Agreement provides for the implementation of Regulation No. 330/2010 of April 20, 2010 [52]. The specified Regulations contain requirements according to which a vertical agreement between enterprises may be subject to an exception to the general prohibition. In particular, these are vertical agreements on the purchase or sale of goods or services concluded between non-competing enterprises, between certain competitors or certain associations of goods retailers. It also includes vertical agreements containing supporting provisions on the transfer of intellectual property rights or their use. In the Ukrainian legislation, Article 10 of the Law of Ukraine «On Protection of Economic Competition» contains general requirements for concerted actions that can be resolved. For a long time, Ukrainian legislation did not contain separate requirements and criteria for exemption from obtaining permits from Ukraine's AMC for certain types of transactions. Regulation No. 330/2010 of April 20, 2010 suggests block exclusion from the general permissive procedure of vertical agreements that can increase economic efficiency in the production or distribution chain by facilitating coordination between the enterprises that take part in them. In particular, they can lead to a reduction in the operating expenses of the parties and to the optimization and distribution of their sales and the level of investment. The likelihood that this increase in efficiency outweighs the anti-competitive consequences due to the limitations contained in vertical agreements and depends on the scale of the parties 'market power and, therefore, the extent to which these obligations are considered by their competitors to other suppliers of goods or services the basis of the mutual change of substitution or because of their characteristics, price and destination.

The Association Agreement emphasizes the need to fill a gap in Ukrainian legislation regarding the legal regulation of block exemptions for technology transfer transactions. In particular, Regulation No. 316/2014 determines that

technology transfer agreements relate to the transfer of rights protected by a license [53]. Such transactions tend to increase economic efficiency and increase the competitiveness of business entities, since they can reduce the duplication of research and development, increase incentives for opening research and development, and stimulate innovations that promote the spread and create conditions for the development of competition in the product market. The provisions of the Regulation cover only technology transfer agreements between the licensor and the licensee. Even if such agreements extend to more than one level of trade, the Regulations contain special conditions for obtaining exemption from the ban, which is not exceeding 20 % market share for vertical agreements and not exceeding 30 % market share for horizontal agreements (Article 3 of the Regulations) [50, p. 35; 54; 55].

In Ukrainian legislation, the sphere of technology transfer regulation is new. However, the special Law of Ukraine «On state regulation of activities in the field of technology transfer» does not regulate the relevant issues of technology transfer except for the procedure for transferring property rights to technologies created with budget funds (Article 11). Therefore, we consider it necessary to harmonize the current legislation to the requirements and standards EU or by improving the existing Law or developing a new one. It is worth noting that the Association Agreement on this aspect provides for three years transition period, which is agreed [51].

Another direction to improve the substantive and procedural rules of competition law, as defined by the Agreement, is to improve the mechanism for controlling the concentration of business entities.

The Association Agreement contains additional requirements to improve the legal regulation of control over concentrations. So, Article 256 (clause 2) of the Agreement contains references to certain articles of Regulation 139/2004 of January 20, 2004 (namely, Article 1 and Article 5 (1) and (2)), which must be implemented in national legislation within three years since the entry into force of this Agreement [56].

It is worth noting that the practice of the AMC of Ukraine on the basis of Article 22 and 24 of the Law of Ukraine «On Protection of Economic Competition» was significantly different from the practice of the European Commission for the Control of Concentrations. In the EU, the criterion for determining the jurisdiction of the EU Merger Regulation is the treatment of at least two participants on the domestic market. The extension of the jurisdiction of the Ukrainian rules of control to a significant number of international transactions, in the absence and substantial connection of direct participants of concentration with the national market, was critically perceived by both practitioners and international organizations, in particular, the OECD [57].

On January 26, 2016, amendments were made to the Law of Ukraine «On the Protection of Economic Competition». The current version of the Law of Ukraine «On the Protection of Economic Competition» states that the concentration can be made only with prior permission of the AMC

of Ukraine, if: – the total value of assets or the total volume of sales of participants products for the last year exceeds 30 million EUR, and at the same time, the value of assets or the volume of sales of goods in Ukraine in at least two participants in a concentration exceeds 4 million EUR each, or – the total value of assets or the total volume of the sale of goods in Ukraine, the company for which control is acquired, or at least one of the founders of the newly created enterprise for the last year exceeds 8 million EUR, and the sales of goods of at least one other participant in the concentration over the last year, including abroad, exceed 150 million EUR. Also in the new edition of the Law of Ukraine «On Protection of Economic Competition» a simplified procedure appears for the consideration of applications for permission to concentration.

On August 19, 2016, a new edition of the Concentration Regulation was introduced, which, in particular, was:

- the amount of requested information was reduced and the number of documents that were irrelevant to the consideration of the application;
- the requirements for the application submitted by the simplified procedure;
- the approach to the economic justification has been changed, which is provided as part of the consideration of the application under the general procedure;
- a consultation procedure has been introduced on the petition of concentration participants.

So, in 2016, about 500 consultations with applicants were conducted by telephone and during working meetings with state commissioners of the Committee [56, p. 43].

Another obligation of Ukraine is the implementation of the EU Council Regulation No. 1/2003 of December 16, 2002. The main proposed changes are that business entities that are parties to a contract will have to verify for themselves that the contract complies with the competition law. Such a «decentralization» provision seems to be completely early in Ukraine as well as independently determining the criteria in accordance of the contract with the requirements of competition law [51].

Article 258 of the Agreement contains an obligation within 5 years from the date of entry into force to coordinate the activities of state monopolies that are engaged in economic activity with the principle of non-discrimination in accordance with the conditions of fair competition of goods and business entities [49].

For a long time, the most vulnerable area of competition law reform was the legal regulation of state assistance. The Association Agreement pays more attention to the obligation to fill a gap in Ukrainian legislation in the field of state assistance.

The legal basis for monitoring and controlling the provision of state assistance in Ukraine was laid down as part of the fulfillment of obligations under the Partnership and Cooperation Agreement, which entered into force

in 1998. In the end, after several attempts to standardize the state assistance system or some of its elements, beginning in 2002, in fulfillment of Ukraine's international obligations that resulted from the signing of the Association Agreement between Ukraine and the EU, in order to ensure the protection and development of competition, the Verkhovna Rada Of Ukraine On July 1, 2014, the Basic Law of Ukraine «On State Assistance to Business Entities» [58] was adopted, which entered into force in full on August 2, 2017. Government assistance is implemented in the form of subsidies and grants; subsidies; tax benefits, deferral or installment plans for the payment of taxes, fees and other mandatory payments; write-off of debts, including debts for the provided state services, cancellation of penalties, compensation of losses to business entities; provision of guarantees, loans on concessional terms, loan servicing at preferential rates; reduction of financial liabilities of business entities to funds of obligatory state social insurance; the provision, directly or indirectly, of goods or services to economic entities at prices lower than the market prices or the purchase of goods or services of economic entities at prices higher than the market prices; sale of state property at lower market prices; an increase in the state share in the authorized capital of business entities or an increase in the value of the state share on terms unacceptable for private investors.

This assistance is a special form of government intervention in the economy in order to stimulate a certain economic activity. As a result, significant undesirable social and economic consequences may arise, in particular: an imbalance in the domestic market (disruption of the functioning of the market mechanism, creation of a specific climate for entrepreneurship, inefficient use of large amounts of public resources), as well as leveling the benefits of international trade. Issues of state assistance to business entities should be considered not only from the point of view of the expediency and effectiveness of the declared project (achievement of the country's development goals), but also on the basis of the criterion of the adequacy of assistance measures to the requirements of the legislation on the protection of economic competition.

Thus, the question arises of the development of regulations that will ensure the effective evaluation, monitoring and control of state assistance. A number of such documents have already been developed and are being implemented, and some are awaiting their adoption. At the same time, the issue of special legal regimes and block exemptions for certain types of state assistants remains unresolved by current legislation.

One of the objectives of improving the current competition legislation to the requirements of the Association Agreement is ensuring the transparency and predictability of decisions of anti-monopoly authorities. The increase in transparency of the AMC of Ukraine is ensured by the publication of decisions made by the competition authority. Since spring 2016, the antimonopoly authority, in connection with the introduction of relevant legislative changes by the Parliament, publishes a decision within 10 days after their adoption, providing all information except for the one that has limited access. This

step significantly improved the «perception» of AMK by both national and international experts, opening up the activity of the body to the society [57].

One of the factors ensuring the transparency of the decisions of antimonopoly authorities is the improvement of the procedure for calculating and imposing fines by the antimonopoly authorities of Ukraine. Today, the Verkhovna Rada is a draft Law of Ukraine «On Amendments and Additions to the Law of Ukraine «On Protection of Economic Competition»», which provides for appropriate changes, in particular, determining the amount of the fine for violating competition legislation under this bill in two stages: the basic fine for the respondent is determined first, and then the appropriate amount is adjusted for aggravating and mitigating circumstances [51]. When establishing the base amount of the fine, various additional criteria are taken into account, factors like the size of the seller's income from the sale of products related to the violation, the severity of the violation, the need to ensure the so-called deterrent effect [51]. While the corresponding bill has not been adopted, the Antimonopoly Committee of Ukraine on August 9, 2016 approved the Recommended explanations on the application of the provisions of the second, fifth and sixth parts of Article 52 of the Law of Ukraine «On the Protection of Economic Competition», the first and second parts of Article 21 of the Law of Ukraine «On Protection against Unfair Competition» concerning the calculation of fines [59]. The changes concern, in particular:

- the approach to the calculation of the base fine for violation of the largest, significant and moderate severity. So, to determine it before the initial amount of the fine, coefficients are applied that take into account the impact of the violation on adjacent markets, the social significance of the product, and the profitability level of the activity related to the violation;
- the possibility of the offender providing a reasonable calculation of the amount of illegally obtained benefit and/or loss (damage) of the person (s) whose rights are violated as a result of the relevant violations of the law on the protection of economic competition, in order to calculate the base amount of the fine [54, 55].

The pledge of the development of economic relations in Ukraine is the gradual integration of the economic system of Ukraine into the global economic world space, which is possible only by unifying and harmonizing the current legislation and the law of Ukraine within the framework of regional and universal trade agreements. The basis of this process is the improvement of the qualitative and quantitative parameters of the competitive environment, in which the interaction of business entities and the observance by the latter of certain conditions of economic activity takes place. One of the means of balancing these processes is the support and protection of fair competition, the formation of civil relations between producers, consumers and the state. By interfering in the regulation of the activities of business entities, the state must balance the objective requirement for business entities to observe certain rules of behavior and interaction, on the one hand, and guarantee the

freedoms of a market economy (freedom to choose the type of business activity, freedom to invest capital, etc.) – another. For the effective functioning of the market system, two major institutions must fully function – private property and competition. In international legal documents, ownership is considered as an inherent natural human right, as stated in Articles 2 and 17 of the Universal Declaration of Human Rights and Articles 2, 9, 11, 24, 25, 26 of the International Covenant on Civil and Political Rights. The constitutional guarantees of the realization of the right of ownership and the right to participate in a competitive competition are determined by Articles 41, 42 of the Constitution of Ukraine. The state not only guarantees the inviolability of property rights and the right to entrepreneurial activity, but also balances these guarantees with a constitutional ban on unreasonable deprivation of property and a ban on the abuse of monopoly position in the market, unlawful restriction of competition and unfair competition. Such an understanding of government regulation is generally consistent with the European values of regulating the leading economies of the world. In particular, according to Article 1 of the Additional Protocol to the European Convention for the Protection of Human Rights and Fundamental Freedoms is guaranteed protection of property rights. However, such protection does not prejudice the state's right to exercise state regulation, in particular, when implementing programs for the nationalization of industrial enterprises carried out for political and social purposes [60]. Thus, the boundary of state discretion in conducting a socio-economic course, as a result of which interference with the right to property is allowed, is quite wide [61]. But this does not mean that the European Court plays no role in assessing the legitimacy of such an intervention. In the Case of *Sporrong and Lönnroth v Sweden* the court formulated such an important principle in justifying the interference: «...The court must determine that a fair balance was achieved between the requirements of the public interest and the necessary conditions for the protection of the fundamental rights of the individual...». The pursuit of such a balance is inherent in the Convention as a whole and is reflected in the structure of Article 1 of Protocol No. 1 to the European Convention [62]. In addition, in the case of *Société Stenuitv. France*, The European Court of Human Rights determines that the purpose of regulation is maintaining free competition in the market, that is, this goal is protection of public interests, which by their importance are protected not only by economic and administrative law, but also by criminal law [63].

In our opinion, the goal of state regulation of the economy is not only ensuring conditions for free competition, but also to create conditions for fair competitive competition in the market, balancing the private interests of individual market participants in exercising their own freedom, enterprise with the realization of social needs and the need to take into account public interests in access to goods, works and services and obtaining not a monopoly, but just (taking into account social needs and interests) profit for the own economic activities.

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