



ESJ Social Sciences

# Financial Mechanisms in International Production Cooperation

*Tomiris Tussupova*

University of Public Service, Hungary

[Doi:10.19044/esj.2022.v18n9p1](https://doi.org/10.19044/esj.2022.v18n9p1)

---

Submitted: 16 January 2022

Accepted: 19 March 2022

Published: 31 March 2022

Copyright 2022 Author(s)

Under Creative Commons BY-NC-ND

4.0 OPEN ACCESS

*Cite As:*

Tussupova T. (2022). *Financial Mechanisms in International Production Cooperation. The Apulian Case History*. European Scientific Journal, ESJ, 18 (9), 1.

<https://doi.org/10.19044/esj.2022.v18n9p1>

---

## Abstract

The analysis of modern foreign experience shows that the leading global manufacturers of high-tech goods do not seek to produce final products only on their own, but prefer production cooperation - placing production orders on the side, investing in logistics, creating global cooperation chains, etc. The development of International Production Cooperation (IPC) is an opportunity to strengthen the country's competitive advantages, regions, and individual enterprises, to expand their presence in the world markets. At the moment, individual methods and tools of financial support and stimulation of the IPC are weakly interconnected and not formed as part of a single financial mechanism. In this regard, such study as an essential component of the modern model of economic development is of particular relevance. The purpose of this article is to consider financial mechanisms in international production cooperation. The research methods are the analysis of modern sources, publications, and the formation of general questions on this topic.

---

**Keywords:** International cooperation, economic development, financial support, contractual basis

## Introduction

### **Essence and objective necessity of International Production Cooperation**

Consideration of the international division of labor and international cooperation in the context of the history of world development shows that they are among the most important processes that determine the progress of

world economic development. At the same time, due to the formation of a single economic space based on the development of international industrial relations, international cooperation ensures the progressive and innovative development of national economies. Here one should agree with the well-known expert in geopolitics and geoeconomics E.G. Kochetov, who sees the meaning of competition in the modern world economy in the ability of local economic entities to integrate into global investment and reproduction processes; and the benefit for any national enterprise is in participation in certain global technological chains. Thus, the International Production Cooperation (IPC) is a factor in innovative development, increasing the competitiveness of companies and countries in the context of the globalization of the world economy.

*The objective necessity* for international industrial cooperation is dictated, first of all, by the global trend of increasing the capital intensity of the production of new goods. Also, the complexity and scale of modern technological tasks are such (the creation of ITER, computers, spacecraft, etc.) that the establishment of effective production objectively requires the building of cooperation ties.

In theoretical terms, in the context of the exponential growth of the types of parts and components for the production of final products, their production within one country becomes unprofitable due to the fact that the production of components is carried out in small batches, with high unit costs and, for these reasons, at insufficiently high technological level. The increase in imports of foreign components makes it possible to reduce the cost of the finished product and make it more competitive.

IPC allows to reduce the preparation time to produce new types of products, as well as to significantly reduce the capital intensity of production. So, according to K.A. Semenov, the exchange of units and parts between countries in order to release the final product allows to reduce the preparation time for its production by an average of 14-20 months, while the cost of mastering a new production is reduced by 50-70%. Substantial savings compared to setting up a new production entirely on its own.

According to the data of the Russian researcher E.A. Sukhov, currently up to 50% of world trade in goods and services is carried out on the basis of long-term contracts of a production and technological nature, and in the trade of finished products the share of international cooperation reaches 70%. That is, the basis of modern international economic relations and the internationalization of production is the reliability of cooperative supplies.

In connection with the course towards the modernization of the countries' economies, the number of joint ventures between individual states begins to grow.

It is necessary to improve the methods and tools for finding new sources of financing for the IPC, providing state guarantees for loans attracted for the implementation of international projects, financial support for national producers when creating joint ventures with foreign participation, and financing cooperation along the supply chain.

Separate methods and instruments of financial support and incentives for the IPC are weakly interconnected and have not been formed as part of a single financial mechanism. The effectiveness of the use of the IPC as a factor in the country's innovative development depends on many conditions, primarily institutional ones. An analysis of the initial provisions, results and conclusions of the institutional theory shows that the use of the concepts of institutions, norms and rules in the development of the IPC can substantiate the directions for the most rational use of financial resources for the modernization of production and sustainable economic development.

### **Literature review**

The financial mechanism for ensuring international production cooperation (FM IPC) as an economic category can be represented as a system of monetary and financial relations between enterprises of the country and the financial sector of the national economy, as well as foreign enterprises, financial institutions and international financial organizations in order to enter foreign markets.

When considering the financial sources of the IPC, the main attention is paid to attracting the resources of foreign investors (Kormnov 2005), the use of funds from foreign cooperative enterprises (Kapustina, Kondratenko 2008). Methods and ways of raising funds for financing the IPC are also considered: the use of financing methods, forms of settlement and payment instruments used in the execution of international transactions (Strovsky, Krasilnikov 2006, Savinov et al. 2014) and the use of the TNC financial management mechanism, in particular transfer prices and tax administration to maximize the profitability of companies (Mamedov 2007). The works of A. Jones (2013), C. Baumeister, H. Zademach (2014) are devoted to the problems of interfirm economic relations and interfirm financing. A review of the literature allows us to get an idea that the financial support of international production cooperation plays an important role in the world economy, contributes to the well-coordinated work of interconnected enterprises in different countries, and an increase in the efficiency of international economic cooperation. However, an integral concept of the financial mechanism of the IPC still does not exist, since there is no systematic understanding of: the financial resources of the IPC (including funds from foreign investment funds and international financial institutions), methods and ultimate goals of financing the IPC.

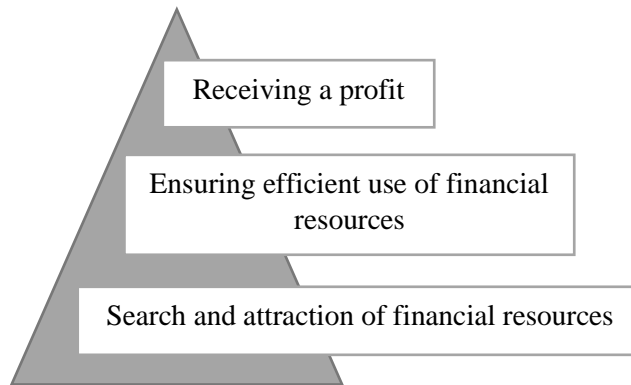
In my opinion, the approach to creating a financial mechanism formulated by the scientific school of the Financial University can be adopted as a methodological basis for disclosing FM IPC. According to this approach, the financial mechanism means the organization of an integral system of cash flow management with the aim of rational spending. Rodionova V.M. with colleagues defines the financial mechanism as a set of methods for organizing financial relations that allow society to provide itself with more favorable conditions for economic development. Raizberg B.A. and his co-authors believe that the financial mechanism is a system of forms and methods of regulating economic relations and processes, and includes taxes, tariffs, duties, prices, discount rate, as well as benefits, subsidies, etc. According to the authors of the Financial and Credit Encyclopedic Dictionary (2004), the financial mechanism can be interpreted as a set of forms and methods by which enterprises provide themselves with the funds necessary for economic activity, achieve stability and normal liquidity indicators, provide access to a high level of profitability. That is, the financial mechanism appears to be an integral system - from raising funds to completing work and making a profit. I believe that this approach can be taken as a basis for the formation of the FM IPC.

### **Theory**

In this regard, the problems of the formation of FM IPC are investigated from the standpoint of the system-target approach. According to which, the financial mechanism is a complex of forms and methods by which the subject of management influences the economic object in the desired direction. At the same time, an economic object is presented as a converter of primary resources into useful goods. From these positions, the main goal of FM IPC is the transformation of primary resources at the entrance to the system into a useful result. The term "mechanism" here means bringing the work of the elements of the system of (self) regulation of the activity of the economic object to automatism. At the same time, in the context of the inclusion of the modern state in the world economic relations, other areas of the FM IPC are also prioritized: the attraction of foreign currency and credit funds to the IPC, the receipt and effective use of profits.

Based on the system-target approach, the following understanding of FM IPC can be formed: *identification, attraction and effective use of monetary and foreign exchange resources for establishing international production relations, embedding national enterprises in global cooperative networks with the aim of profitable functioning of national enterprises in the system of world economic relations.* The author's understanding of FM IPC can be schematically represented in the form of Figure 1:

**Figure 1 - The financial mechanism for ensuring IPC**



Source: compiled by the author

The system-targeted presentation of FM IPC allows us to clearly highlight the main elements of the system:

- 1) input in the form of searching and attracting financial resources for the IPC,
- 2) the process of transforming financial resources of the IPC (input resources) into a useful result (effect at the output) - which essentially determines the requirements for the efficient use of financial resources of the IPC, ensuring the rational operation of enterprises participating in the IPC,
- 3) the output, reflecting the achievement of the goal - getting the maximum profit.

The representation of the elements of the FM IPC in the form of an interconnected system allows us to determine clear internal goals and the content of the functioning of the main structural elements:

- 1) mobilization of resources for financing the IPC, which involves the establishment of effective interaction with credit and financial institutions;
- 2) the process of ensuring the effective use of these resources, covering a wide range of issues - from the optimization of production and scientific and technical activities (for example, the creation of strategic alliances or, conversely, branches of production abroad) to insurance of financial risks and investments, optimal pricing and taxation to achieve the normal level of profitability of partner enterprises;
- 3) goal-setting of the IPC - making a profit (the main goal) by partners in the IPC, stock market participants, representatives of financial capital, providing the IPC with financial resources, pursuing the goal in the

form of self-growth of money; as well as the establishment of mutually beneficial sustainable long-term industrial relations between countries.

The interaction of the structural elements of the financial mechanism of the IPC is not invariable, once and for all set throughout the history of the development of the economic system. FM IPC should correspond to the existing level of development of productive forces and economic relations. In my opinion, the improvement of its structure occurs under the influence of the following factors: 1) the needs of the growth of the national economy, 2) the needs of the growth of the world economy, 3) the level of technological development of production, 4) changes in the financial, economic and political situation in the world.

The financial support of the IPC is carried out in the form of financing from the state budget, from its own funds and / or lending by commercial banks to manufacturers (borrowers). Analysis of the literature shows that the use of funds occurs in strategic directions (projects) for countries:

- creation of joint innovative manufacturing enterprises;
- modernization of the economy - attraction of advanced technologies and their introduction into production in cooperation with foreign enterprises;
- commercialization of scientific and technical developments, "fine-tuning" of ideas to the creation and implementation of innovative products (usually capital-intensive) in cooperation with foreign partners.

At first glance, when entering into international economic, financial and monetary relations, enterprises pursue the same goals as in the domestic economy. This is - providing oneself with the necessary funds, achieving stable indicators of profitability of the enterprise and obtaining maximum profit. However, due to the fact that foreign economic activity is a more complex area associated with currency, credit and market risks, the structure of the financial mechanism for ensuring the IPC is becoming more dynamic. Thus, the provision of funds to an enterprise and ensuring their effective use within the framework of an ongoing international project may require not only private, but also state guarantees, especially when international financial organizations participate in lending this project.

## **Principles**

The principles of FM IPC allow to have an effective search and selection of funding sources, ensure the continuity and profitability of production.

*The first principle* of the formation and improvement of the financial mechanism of the IPC is - to meet the needs of the IPC as a subsystem of expanded production. This is the expansion of budgetary financing of international production programs, the implementation of investment programs within the framework of international cooperation on the principles of PPP (public-private partnership), the stimulation of private lending for international cooperation projects, the involvement of development financial institutions and non-bank financial institutions in the financial support of the IPC. Technologies for financing joint production and scientific and technical projects and methods of lending high-performance imported equipment as elements of FM IPC contribute to increasing the competitiveness of the country's enterprises.

*The second principle* of the FM IPC refers to the rules for the provision, use and return of IPC financial resources. Since the provision of financial resources is due to investment and credit activities, equipment leasing, the provision of subordinated loans, etc., it is quite natural to turn to the principles of international credit. The principles of international lending are formulated by Doctor of Economics, Professor of the Financial University L.N. Krasavina: 1) repayment, 2) urgency, 3) payment, 4) security, 5) target character. Practice has shown that the application of the principles of international lending makes it possible to realize the interests of both the subjects of the credit transaction (the bank and the borrower) and the general / public interests in the world economy, contributing to an increase in the production activity of the subjects of the national economy and the growth of the world economy.

*The third principle* is the flexibility of the FM IPC. Considering that under the IPC, obligations in general or part of the obligations to foreign counterparties can be settled in kind (deliveries of goods, counter-deliveries of similar goods or services), the financial mechanism for ensuring the IPC may include various forms and methods. In terms of implementing the flexibility of FM IPC, the most promising is the further expansion of one of the forms of international lending - commercial loans. It provides IPC members with significant opportunities to agree on the timing and cost of loans, as well as greater freedom from government regulation of export-import operations. The development of commercial (corporate / inter-company / trade / commodity) credit can be stimulated through the use of various financial instruments (reducing the tax burden on business, minimizing customs duties). The world practice of recent years also shows that in the system of global supply chains, inter-company financing and direct inter-company payments (B2B payments) are becoming increasingly important. The development of commercial lending (inter-company finance) correlates well with the principles and functions of the WTO in the implementation of trade rules

between states - as declared on the WTO website, in order to make trade flows as smooth, predictable and free as possible. The application of the principles of the FM IPC in practice contributes to the effective search and selection of monetary and foreign exchange resources, increasing the stability and profitability of the work of international companies, and achieving the goals of the IPC.

The role of interaction and cooperation of enterprises with the financial sector and state regulation bodies of the economy is high in all cases. The various methods and financial management tools used in this case constitute the FM IPC, which directs international cooperation in a socially necessary channel.

In general, as the analysis of scientific literature and the study of the practice of financial support of international cooperation shows, by now a complex multi-level system of production financing has developed, covering financial interactions between enterprises, banks, economic and administrative institutions of different countries. In this system, the following types of financial relationships are built:

- 1) "the enterprise is its foreign counterparties" using their own funds as a source of financing for cooperation,
- 2) "commercial banks - borrowers-participants of the IPC",
- 3) "federal budget - enterprises-recipients of funds",
- 4) "funds of interstate financial institutions - enterprises (recipients of funds)".

Based on the identified main types of financial relationships between subjects of international cooperation, I'd like to propose the following classification of financial mechanisms for ensuring the IPC:

1. Intercompany financing / lending, when an enterprise interacts with its foreign counterparty using its own or borrowed funds, i.e. B2B financing.
2. Bank lending is a mechanism of interaction between commercial banks, other financial and credit institutions and members of the IPC (borrowers). Let's call this mechanism, by analogy with the name of the first type, Financial institutions to business financing, i.e. F2B funding.
3. State funding, when enterprises receive funds from federal / regional budget funds. This is the mechanism of Government to business financing - G2B financing.
4. International financing is a mechanism of interaction between funds of international / interstate financial institutions and enterprises (recipients of funds). We will give this mechanism the name I2B as an International Financial institutions to business financing.



The use of these financial mechanisms of the IPC, contribute to the redistribution of financial resources between interconnected long-term contracts of enterprises of different countries within a certain production cycle, their rational productive use and the final increment - making a profit. Financial resources are transferred in the form of a commercial loan (when a co-operative enterprise receives goods or money from a counterparty - parts or finished products, or temporarily free funds), a bank loan (funds accumulated by banks, ready for investment), government and international loans. Credit resources are transferred from one enterprise to another, from lenders to borrowers, and when the loan is repaid, from borrowers to lenders, resulting in a continuous turnover of capital and the possibility of expanding production volumes.

Analysis of the known basic mechanisms of financial support of the IPC showed that they are inherent, along with their advantages, and a number of contradictions and disadvantages. In my opinion, due to the shortcomings of the existing practice of commercial lending (short-term), the current problems of bank lending to the real sector of the economy (the lack of long-term resources, which have become permanent in developing countries), as well as some obvious shortcomings of state and international financing of the IPC (limited, distorted market signals) requires a conceptually new vision of the financial mechanism to ensure the IPC. It should be said that the contradictions and shortcomings of the existing mechanisms for financing the IPC have been accumulating for decades, as the internationalization of production, the deepening of IDL (international division of labor), specialization and cooperation of production, which led to an increase in the gap between developed and developing countries in terms of technological, scientific and technical and financial development. To overcome the aforementioned contradictions and shortcomings in the financing of international production projects, new conceptual approaches to the formation of FM IPC are needed in modern conditions. The starting point of the study of the formation of a new financial mechanism of the IPC was the transformation of B2B relations in the modern world economy. It includes the transformation of the principles, forms and conditions for the provision of commercial (inter-firm) financing under the influence of globalization processes. The formation of a new concept is linked to the study of the principles of formation, institutionalization and financial support of the GPN (global production network).

Global production (cooperative) networks arise when international strategic alliances (ISA) are formed, enterprises are embedded in global value chains, etc. Various types of international production and distribution networks are provided through supply chain financing mechanisms, financing of cooperation of international enterprises in the line of adding value, special

programs for financing value added chain financing, through mechanisms of financial interaction of ISA participants and TNBs forming global financial networks, etc. Intercompany business finance (B2B finance) along the global value chain plays an important role in today's global economy. In a modern (regulated) market economy, any production occurs when the manufacturer is confident in the existence of stable demand, in the availability of consumers for the product being manufactured. As the competition intensifies on the world markets for means of production, electronics, clothing, food, etc., the key condition for production activities is the integration of manufacturers into Global Production Chains, global and regional distribution networks. Moreover, the incorporation of an enterprise into the GPN becomes vital when it comes to the release of complex science-intensive means of production. If this condition is fulfilled, along with low costs and high quality of the product, the entrepreneur is confident that his product will be in demand by the consumer, as a rule, the next manufacturer in the GPN link.

In the context of the formation of GPN and the strengthening of cooperation ties between enterprises, there is a need for the development of B2B financing. Although it is a well-known financial instrument in theory and practice, as mentioned above, this mechanism for financing international cooperation relations is just beginning to accumulate. According to Baumeister C. and Zademach H.-M. (2013), “the instruments of inter-firm financing began to be applied in corporate practice quite recently, with distinct differences from country to country”.

At the same time, there are more well-known analogs of inter-firm interaction, which can also be considered as instruments of financing IPC. Among the modern effective financial mechanisms of IPC, one should highlight the participation of companies in the share capital of each other (cross participation in the share capital). So, to date, an interweaving of 500 TNCs has formed, forming a global cooperative production network. Close financial cooperation between companies arises when creating international strategic alliances, with joint financing of related types of production in order to generate innovations and produce products that are competitive on world markets. Common to all of the above forms of financing is interfirm financial interaction in the system of interconnected industries, close to the mechanism of traditional interfirm commercial lending (when firms that are in the initial stages of production actually lend to those firms that produce a finished product), but at a modern and higher level of embodiment. Basically, this is IPC's global funding.

### **Practice**

In the context of the international division of the production process, the supply of raw materials abroad for further processing or industrial

consumption (oil, gas, metals) is the same manifestation of international cooperation as the interaction of enterprises in the supply of components for the production of final products between countries.

Thus, oil is supplied as part of the international division and cooperation of the production process, is used in further stages of value addition and, in some cases, is partially returned back to the country in the form of refined petroleum products. Long-term economic relations also arise when exporting/importing complex technical products and means of production. In this way, the IPC penetrates into all sectors of the national economy, including even those that satisfy exclusively internal needs, for example, the construction industry.

So, in 2015, in Kazan, Russia, the construction of a new metro tunnel had to be suspended for a long time due to the lack of imported spare parts for the Syuyumbike tunnel boring complex. For technical reasons, the parts for it were not sent from Canada on time - the deadlines for the delivery of spare parts were disrupted due to the fault of the manufacturer of the machines. According to the builders, the parts that the Kazan metro builders should receive cannot be made by themselves.

Thus, international specialization and cooperation covers all spheres of economic life. International production cooperation is considered by many researchers as the most important factor that determines the nature of the country's relationship with the world economy and provides an opportunity for the transition of national enterprises to a modern technological level.

According to Keynesian theory, in times of crisis, the role of the state is strengthened. In Russian practice, it is confirmed by the growth of budget spending on the national economy from 1.75 trillion rubles in 2013 to 3.06 trillion rubles in 2014.

At the same time, strengthening the role of the state is also required in the context of modernization breakthroughs, which contributes to an increase in the share of budget expenditures in the structure of industrial investments. The state budget is becoming the most important source of funding for the IPC. This applies both to the allocation of budget allocations for the development of new high-tech industries, and the provision of state guarantees.

Thus, in 2014, the Government of the Russian Federation provided state guarantees for 15 years for 35 billion rubles to PJSC KamAZ for the implementation of the investment program for the development of the model range of vehicles and the modernization of production, including the creation of joint Russian-Austrian enterprises.

This, in turn, contributes to the acceleration of the development of guarantee mechanisms, financial market infrastructure, that is, indirect methods of financing the IPC. The next source of financial resources of the

IPC is the own funds of enterprises. Here we primarily include the balanced financial result of the activities of enterprises of the Russian Federation - which amounted to 6.89 trillion rubles in 2010 and 5.90 trillion rubles in 2014.

These data indicate that financially sound and, as a rule, large and medium-sized enterprises of the Russian Federation have significant financial resources. In our opinion, in the context of the internationalization of economic relations, the main sources of financing for the IPC are the own funds of enterprises and their foreign investors-partners in the IPC. We estimate these funds at about 10 trillion rubles - equally on each side.

Recent trends confirm that in many cases, at least when international production projects are highly capital-intensive, IPC funding comes from the enterprises themselves and their foreign partners, usually from transnational companies (TNCs). In addition to profit, enterprises have another type of own funds - a depreciation fund.

An analysis of investment financing sources in the Russian economy has shown that the volume of investment through depreciation is comparable to the volume of investment made through profit. Thus, according to Rosstat data, the main sources of investment in 2011 were profit (1.51 trillion rubles) and depreciation (1.7 trillion rubles).

The most important source (both internal and external) of financial support for the IPC is bank capital. Bank lending contributes to the development of international cooperation and the production of competitive products. Services of banks in lending to foreign economic activity cover a wide range of banking credit operations - from the provision of an overdraft on the current account of a bank client to the financing of investment international projects. An analysis of the banking systems of various countries and their activities in financing international investment projects showed the high potential of banking capital as a source of financial support for the IPC.

The volume of banking resources of the Russian Federation is 56 trillion rubles. Analysis of theoretical sources shows that approximately 10% of them can be used in the form of investment loans. Our estimate of bank capital as a source of financing for MPCs is up to 5.6 trillion rubles.

This is a significant amount, but still not so impressive compared to the banking assets of Western countries, which exceed \$100 trillion. In this regard, it is necessary to intensify cooperation with foreign banks as a potential source of long-term lending to Russian enterprises participating in international industrial cooperation, attracting at least another 5.6 trillion rubles.

The transition to International Financial Reporting Standards (IFRS) helps to attract international loans, as foreign banks have more confidence in those enterprises that prepare their reports in accordance with international

standards. Data analysis shows that the banking system is well developed in France, Germany, Japan, Great Britain, and the USA.

A bank loan is one of the main forms of financial support for the needs of the real sector in these countries and their TNC affiliates abroad. It can also be concluded that the development of the Russian banking system, judging by its share in the national product, is at a fairly high level. Thus, the financial system of the Russian Federation can be characterized as based on the banking system (bank-based financial system).

However, the banking system of the Russian Federation lags far behind the developed countries and has not yet become an effective source of financial support for the IPC. One of the main reasons is the parameters associated with a high level of non-performing loans and a modest amount of long money. The second reason is the small number of Russian transnational banks (TNB), their weak presence in non-CIS countries.

In the context of the globalization of the world economy, the international division of labor (IDL) is increasingly influenced by the largest TNCs and the transnational reproduction complexes formed by them, operating in a single mode, which is set by transnational technological systems. At the same time, the technological unity of enterprises from different countries included in such transnational reproduction complexes is in some cases supplemented by financial and organizational unity.

IDL is implemented in the main forms of international specialization and industrial cooperation.

Under the international specialization of production is understood such a form of IDL, when industries, sub-sectors, individual technological processes of enterprises of national economies are focused on the production of homogeneous products in excess of domestic needs. When classifying various types of international specialization of production, they distinguish, first of all, intersectoral and intrasectoral specialization.

Intersectoral specialization implies the concentration in individual countries of individual industries in the absence of many other industries in them. Previously, international specialization developed, one might say, exclusively as an interbranch one, an example of which is the specialization of many countries in Asia, Africa and Latin America in the production of mineral and agricultural raw materials and certain types of food products, i.e., in the field of mining and agriculture. This type of international specialization is associated with the insufficient development of productive forces in many countries, so their place in the IDL was determined by the presence of various natural resources of mineral or agricultural raw materials, the possibility of growing certain food crops.

Intersectoral specialization is gradually becoming a characteristic of developed countries, especially for small territories and populations. Although

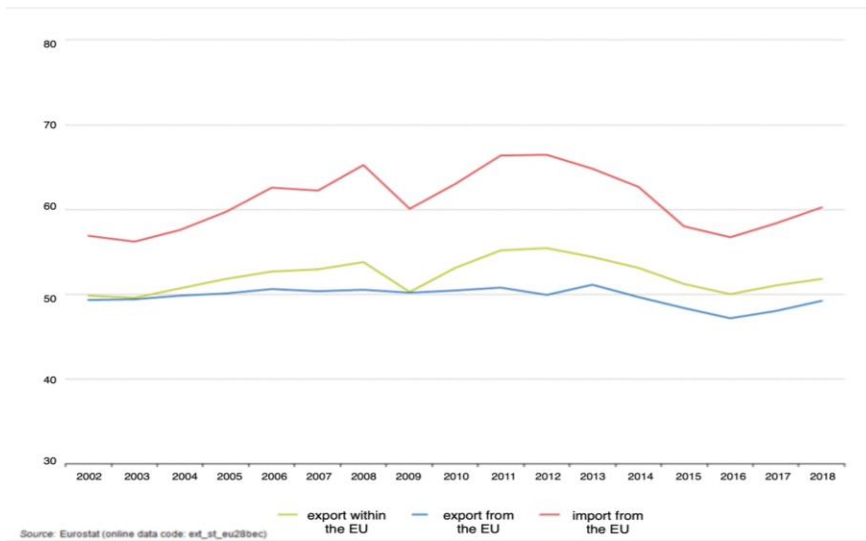
their specialization is also partly related to the geographical environment and natural conditions, it is more progressive and is characterized by the production of industrial products and semi-finished products. For example, in the pre-war period, Norway specialized in the production of aluminum, Belgium in the production of iron and steel, Finland in timber and woodworking products.

The situation is quite different in France, Germany, Japan, Great Britain, the USA and other developed countries, due to the presence of large national TNB. The world's leading TNBs also carry out other banking lending operations and are necessarily interconnected with each other and with global TNCs. Given the fact that TNCs are the driving force behind the international division of labor and cooperative production, the role of TNB is enormous.

Note that in the EU, trade in intermediate goods is an important driver of overall trade.

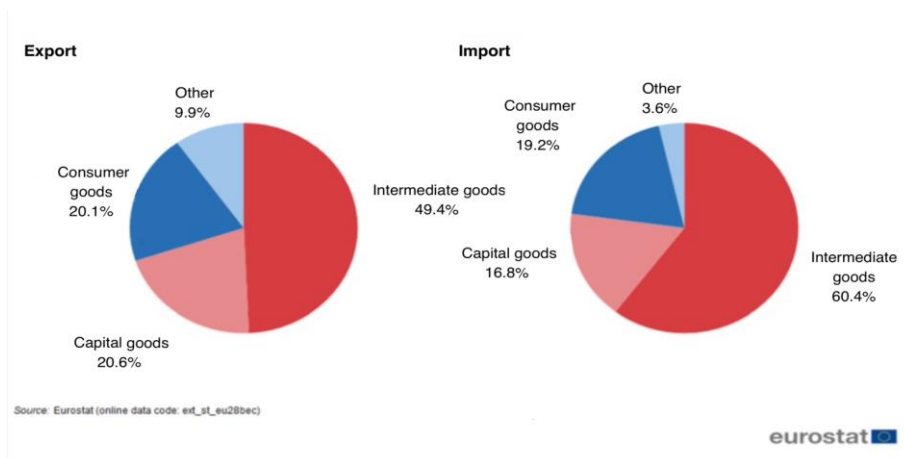
Figure 2.1 shows the change in the share of intermediate goods in total trade for the 28 EU member states over the period 2002-2018. The 2008 global financial crisis had a significant impact not only on the value of trade in intermediate goods, but also led to a decrease in the share of intermediate goods in total trade, as can be seen from the graph.

After that, there was a relatively fast recovery and the share of intermediate goods in total trade continued to rise, peaking in 2012 at 66.5% for EU imports and 55.4% for intra-EU exports, while for EU exports it reached maximum one year later - 51.1%. According to the latest data, in 2018 there was the following ratio: a share of 60.3% for imports from EU countries and 49.3% for exports from EU countries, while for exports within the EU it was 51.9%.



**Figure 2.1.** Share of intermediate goods in total trade in all goods, EU-28, 2002-2018 (%)

The dominance of intermediate goods in total trade is shown in Figure 2.2. In the EU, intermediate goods accounted for just under half (49.4%) of all goods that were exported in 2018. As noted above, the corresponding share for imports was higher at 60.3%. In comparison, capital goods (20.6%) and consumer goods (20.1%) covered only a fifth of all exported goods. In imports, the shares of capital goods (16.8%) and consumer goods (19.2%) were somewhat lower.



**Figure 2.2.** Trade in goods outside the EU by broad economic category, EU-28, 2018 (% of total)

Digging deeper into the statistics reveals that the bulk of international merchandise trade is relatively concentrated in some key commodity groups, while for many other commodities the level of international trade remains fairly low. Indeed, the intrinsic nature of some goods (for example, goods with a limited shelf life or bulky goods) determines that they will be mainly consumed domestically or in neighboring markets.

## **Conclusion**

Based on all of the above, we can conclude that industrial cooperation in the EU is based on a developed system of subcontracting, thanks to which small and medium-sized enterprises develop, as well as interaction with scientific and innovative firms, training centers, marketing agencies, etc. which allows us to jointly develop new technological processes, work to improve the skills of specialists, select suppliers of raw materials and materials, and order scientific research. The holding of annual exhibitions, among other things, has a positive effect on the creation of new production chains by industrial and industrial corporations.

In the modern world economy, international industrial cooperation is the most common type of international production and technical relations of foreign enterprises. Production and cooperation relations contribute to an increase in labor productivity, technological modernization and the development of capital-intensive products that require huge financial costs, thereby allowing the implementation of major economic tasks, which is extremely difficult or impossible to solve without combining the efforts of enterprises from several countries.

Taking a look at the analysis of various theoretical approaches to the study of the IPC, it is proved that within the framework of the systemic and reproductive approaches to its definition, the modern system of international cooperation should be considered as the basis for the integration of countries, regions and companies into the world economy. In its most general form, international cooperation should be understood as the economic interaction of countries (regions, enterprises of different countries) in order to realize the advantages of the international division of labor. In the context of globalization, when international cooperation covers all spheres of social production - production, distribution, exchange, consumption - the priority is to integrate national companies into a single global reproduction system. The essence of the IPC is clarified in the work as a joint activity of enterprises from different countries to implement international production and scientific and technical programs, develop new technologies, study foreign markets and sell products in order to systematically generate profits.

Analysis of the results of modeling the assessment of the impact of the IPC on the national economy showed that there is a direct positive correlation



between the development of the IPC and the growth of the national economy. It is concluded that at the present stage of internationalization of production, IPC is an innovative factor in the development of national economies, which determines the nature of the country's relationship with the world economy and provides an opportunity for national enterprises to move to a modern technological level.

The effectiveness of the financial mechanism for ensuring the IPC depends on the integrity of the system of methods, forms and instruments of financing enterprises participating in the IPC: from the search and attraction of monetary and foreign exchange resources in order to establish international production relations to the creation of conditions for their profitable work and obtaining international cooperative rent.

This study proves that the development of international cooperation ties in the production and scientific and technical spheres is the main goal of any integration. Integration processes need to be developed where and insofar as and where the needs for the development of the IPC arise.

#### References:

1. Analytical materials of the International Investment Bank [Electronic resource]. - URL: <https://iib.int/en>
2. Analytical materials of the Interstate Bank of the CIS [Electronic resource]. - URL: [http://www.isbnk.org/ru/about\\_general.html](http://www.isbnk.org/ru/about_general.html)
3. Association for Project Management (APM). (2012). Body of Knowledge. 6th edition.
4. Association for Project Management (APM). (2015). Financial and cost management. Retrieved August, 2015 from APM Web site: <http://knowledge.apm.org.uk/bok/financial-management>.
5. Arapova, E. Ya. *Economic integration in the East Asian region: a retrospective analysis and future opportunities* / E. Ya. Arapova. - M.: Prospekt, 2015. - 208 p.
6. Baumeister, C., Zademach, H. (2013). *Financing GPNs through interfirm collaboration? Insights from the automotive industry in Germany and Brazil*. MDW Working Paper 20
7. Bannikov, A. Yu. *Experience of the EU and APEC countries in the development of innovative clusters // Public Administration. Electronic Bulletin [Electronic resource]. - 2016. - No. 57. – Access mode: <https://cyberleninka.ru/article/n/opyt-stran-es-i-ates-porazvitiyu-innovatsionnyhklasterov>*
8. Bartenev, S. A. *International specialization and cooperation - two sides of a single process // Russian Foreign Economic Bulletin. - 2012. - No. 3. – P. 3–7. – Access mode:*

- <https://cyberleninka.ru/article/n/mezhdunarodnaya-spetsializatsiya-i-kooperirovaniedve-storony-edinogo-protssessa>.
9. Brooks, D. H., Stone, S. F. (2010). *Trade Facilitation and Regional Cooperation in Asia*.
  10. Castells, M. (2009). *The Information Age: Economy, Society and Culture (Information Age series)*.
  11. Dollar, D., Kraay, A. (2004). *Trade, Growth, and Poverty*. Royal Economic Society Economic Journal. - Vol. 114(493).
  12. Dmitriev, V. (2012). *Time for strategic investments - No. 8*.
  13. De Kusserg, S., Yarygin, I. Z. (2005). *Foreign banks: organization and technique of work*.
  14. EOS survey. (2006). *European Payment Practices*.
  15. European Economic Area and Norway Grants (2011). Implementation of the 2009 - 2014 EEA Financial Mechanism in Lithuania. Strategic Report No1. Reporting period 18 May 2011 - 31 December 2011. Retrieved June, 2015 from EEAGrants Web site: <https://eeagrants.org/sites/default/files/resources/Lithuania%20-%20EEA%20Grants%20annual%20strategic%20report%202011.pdf>
  16. EDB. Integration studies. [Electronic resource] <https://eabr.org/en/analytics/integration-research/>
  17. GPM Global. (2015). Standard for Sustainability in Project Management: People, Planet, Profit, Project Processes and Products. First Edition.
  18. Granberg, A. G. (2003). *Fundamentals of regional economics*.
  19. Gaganis, C., Pasiouras, C., Zopounidis, C. (2006). *Multicriteria Decision Framework for Measuring Banks Soundness around the World*. Journal of Multi-criteria Decision Analysis. N14
  20. Gryaznova, A. G. (2002) *Financial and credit encyclopedic dictionary / team of authors*
  21. International Project Management Association (IPMA). (2015). Individual Competence Baseline (ICB). Version 4.0.
  22. Kobrinsky, N. E., Mayminas, E. Z., Smirnov A. D. (1982). *Economic cybernetics*
  23. Krasavina, L. N. (2006). *International monetary and financial relations*
  24. Kapustina, L.M. International industrial cooperation in the machine-building complex of Russia / L.M. Kapustina, Yu.N. Kondratenko // Proceedings of USUE, 2008. - No. 2. - P. 10-15.
  25. McKinsey & Company. (2015). Megaprojects: The good, the bad, and the better (July 2015 Infrastructure - Nicklas Garemo, Stefan Matzinger and Robert Palter).
  26. Rodionova, B. M. (1993). *Finance*. M.: Finance and statistics.

27. Raizberg, B. A., Lozovsky L. Sh., Starodubtseva E. B. (2007). *Modern economic dictionary*
28. Semenov, K. A. (2000). *International economic relations*. M.: Gardariki.
29. Sukhov, E. A. (2012). *International industrial and technological cooperation in the oil and gas sector of Russia: abstract of thesis*.
30. Strovsky, L.E. Improving the efficiency of cooperation between Russian enterprises and foreign partners / L.E. Strovsky, D.V. Krasilnikov // Proceedings of the Ural State University of Economics. - 2006. - N 3. - S. 42-47.
31. Tatarkin, A. I. (2011). *Self-developing socio-economic systems: theory, methodology, forecast estimates: Vol. 1*.