

**INTELLECTUAL RENT AS AN ESSENTIAL FACTOR  
OF INNOVATIVE DEVELOPMENT OF ECONOMY**

*The article reveals the nature, structure, specific properties, conditions of formation and types of intellectual rent. The authors highlight the problems of estimation and distribution of intellectual rent between economic actors; analyze experience of developed countries in the field of regulation of intellectual rent; single out obstacles to its expanded reproduction and provide practical recommendations for the effective regulation of the rental income in the Ukrainian economy.*

**Keywords:** intellectual rent; types of intellectual rent; distribution of intellectual rent; regulation of intellectual rent.

**Problem setting.** Recent changes in the proportion of factors of production and transformation of intellectual capital into a strategic element of postindustrial development have enhanced scientific interest regarding the formation and distribution of the income from intellectual activity. Nowadays the production of intellectual products becomes one of the most promising and profitable sectors of the economy. Thus, the analysis of the issues of distribution and use of intellectual rent in the economy of Ukraine attains an important scientific and practical meaning.

It is widely recognized that the innovative way of development, aimed to increase the global competitiveness of the country, which has been chosen by Ukraine, is impossible without assembling of a new technological base. However, the proportion of total expenditure on conduction of scientific and technical research accounted for only 0.77% of the national GDP in 2013 (0.75% in 2012). At the same time for the countries of European Union this index equaled on average to 2.06% of the GDP in 2012 (e.g. Finland – 3.55%, Sweden – 3.41%, Denmark – 2.99%, Germany – 2.84%, Austria – 2.75%). High rates were also observed in Japan (3.25% in 2010) and the USA (2.73% in 2011). [1, p.76; 2, p.155].

Underfunding of scientific and technical research in Ukraine deepened the structural deformation of the national economy, caused by the dominance of export-oriented primary industries. The consequences of that were an unequal foreign trade exchange, an outflow of intellectual capital abroad and an increase in the technological backwardness of the country. In the global competitiveness ranking of the World Economic Forum in 2013-2014 Ukraine has lost 11 positions, moving from 73rd to 84th place among 148 countries [3]. Under these circumstances the efficient use of intellectual capital can significantly increase global competitiveness of the national economy.

**Analysis of the previous research and publications.**

Rent is a fundamental economic concept, understanding of which deepened along with evolution and differentiation of economic activity and implementation of new factors of production into the economic turnover. Representatives of the Classical political economy (W.Petty, F.Quesnay, A.Smith, D.Ricardo, J.-B.Say, J.S.Mill) and Marxism (K.Marx, F.Engels) mainly analyzed land rent as a rent from the natural resources. At the same time neoclassical economists (W.S.Jevons, C.Menger, A.Marshall, J.B.Clark) substantiated the existence of rental income from each of the factors of production. They used a term "rent" to denote a steady income from "free gifts of nature" and a term "quasi-rent" to identify the income from the production factors that are not permanent. Institutionalists (T.Veblen, J.R.Commons, R.Coase, A.Krueger, D.North, A.Aslund, J.M.Buchanan, G.Tulloch, R.Tollison) incorporated non-

economic factors into the analysis, enriched the list of the actors of rent relations and suggested new types of rent.

The modern researchers interpret the rent as an income received from any factor of production with non-elastic supply; economic form of the right of ownership for a limited resource; special kind of a stable fixed non-labor income obtained by the owners of limited resources or an income received from monopoly rights on the scarce resources. The scientists acknowledge existence of different types of untraditional rental income e.g. intellectual rent, information rent etc. Significant contribution to the coverage of a notion of the untraditional types of rent was made at the end of XX – beginning of XXI century by L.Edvinsson, T.A.Stewart, M.S.Malone, J.Daffi, L.Prusak, D.A.Klein, C.Fitzsimmons, T.Jones, C.DesForges and others [4,5,6,7,8]. These economists study nature and structure of intellectual capital and suggest innovative approaches to the analysis of extra profits and business leadership. The approaches are based on the idea of effective use of unique intellectual assets that can provide a competitive advantage and trigger a mechanism of innovative development.

Some aspects of the establishment and transformation of rent relations in the post-socialist economies was analyzed by Ukrainian researchers such as S.Arhiyereyev, B.Danylyshyn, A.Grytsenko, V.Demytyev, I.Malyy, O.Nosova, O.Pashaver, P.Sabluk and others. The problems of formation and development of intellectual capital, commercialization of intellectual property, increasing role of intellectual property in the intensification of innovation processes in Ukraine, maintenance of competitiveness of business entities and the state in a globalizing world economy were considered in the works of O. Belarus, A. Butnik-Seversky, V.Virchenko, V. Heyets, P. Krainev, N.Merkulov, V. Osetskyy, A. Pidoprigor, A.Svyatotskyy, V. Sidenko, P. Tsybulov, A.Chukhno and others.

However, it must be admitted that despite of the relentless attention of the domestic and foreign scholars to the analysis of relationships in a sphere of intellectual activity, there exist a number of issues available for the further consideration and analysis. These issues are related to the processes of formation, distribution and efficient use of intellectual rent as well as to the specific features of implementation and reformation of these processes in the Ukrainian economy.

**The purpose of the proposed research** is a theoretical substantiation of the main directions of improvement of state regulation of intellectual rent as a leading factor of the innovative development of the economy of Ukraine.

To implement this goal the authors first reveal the nature and structure of intellectual rent as well as prerequisites for its formation. In the further sections of the article they cover the specific properties, structuring criteria and

types of intellectual rent as well as its role and significance in the modern market economy. A considerable attention is paid to the analysis of the problems of evaluation of intellectual rent, its distribution between the main economic actors and improvement of state regulation of this sphere of social relations. The authors investigate experience of developed countries in this area and highlight the emerging trends of improvement of antitrust laws and legislation on the protection and enforcement of intellectual property rights.

Relying on the materials of Eurostat and the State Statistics Service of Ukraine the article analyzes the efficiency of the governmental regulation of the intellectual rent as a leading factor of innovative development of the economy of Ukraine. In the final sections of the paper basic limitations of expanded reproduction of intellectual rent in the national economy are considered and practical recommendations to improve state regulation of intellectual rent in Ukraine are provided.

The authors take into account the complexity and dynamic of the system of rent relations in the modern market economy. They acknowledge that despite the possibility of application of generally known theoretical and methodological approaches, positive analysis of intellectual rent and normative conclusions may depend on the specific type of a rental income and characteristics of the national economy.

**Research specification.** The intellectual property is used in a market economy through commercialization mechanism, which ensures the continuous movement of the intellectual capital [9 p.6-7]. This mechanism can be defined as a set of structural elements generated by human knowledge. These elements are the hidden sources of value, which bring the company the particularly high grade in the international rankings.

The modern economic scientists add to the structure of the intellectual capital those kinds of economic resources that can not be evaluated with traditional evaluation techniques. Thus, intellectual capital includes both human and structural (institutional) capital. The latter consists of customer and organizational capital, which in turn includes innovation and process capital [4].

Quasi-rent or intellectual rent is explained in the modern economic literature as an income that exceeds a compensation that is needed to attract intellectual capital to a certain sector of the economy (opportunity cost). Quasi-rent is basically a profit obtained by establishing a stable, limited-in-time monopoly on the use of intellectual resources. Such an extra profit is created by the labor of "intellectual workers" and obtained by the owners of intellectual property as a result of existence of monopolies on intellectual products, supported by the system of intellectual property protection [10].

The intellectual rent consists of the two financial flows, namely: (1) income earned from the production and sale of innovative products, which are created individually on the basis of intellectual property; (2) income from the transfer of intellectual property rights (royalties, lump-sum payments, blended payments, etc.) [11, p. 123].

Thus, intellectual rent is created as a result of use of a specific renewable resource (intellectual capital) and enforcement of property rights on innovative products, legalized by means of patents, licenses and other agreements.

The main prerequisites for the formation of intellectual rent are:

- establishment of information and knowledge as the dominant factors of production;
- scarcity and high profitability of intellectual capital;
- monopolistic ownership of intellectual resources and products;
- clear specification and protection of intellectual property rights;
- effective mechanism of commercialization of the products of intellectual activity.

It is important to note that intellectual rent is characterized by the properties that are typical for any rental income. However, as a notion of post-industrial economy, it has the following specific characteristics that distinguish it from other types of rent:

- economic prerequisite for its formation is a difference in the utility obtained from consumption of the products of intellectual property and traditional goods;
- it originates from motivation and ability of individuals for intellectual production, their ability to process information and produce new knowledge;
- economic entities that appropriate intellectual rent are the owners of intellectual capital that is both private and public good and which is characterized by identity of the processes of production and consumption as well as by continuity of infrastructure services;
- the main areas of its formation is the high-tech manufacturing and technological complex as the leading areas of the national innovative development;
- its distribution and use is determined by the nature of ownership on intellectual products and innovations;
- it has a provisional nature and disappears when innovation becomes widespread or when its protection document expires;
- desire to obtain intellectual rent stimulates innovative development of economy, because only leaders in the field of scientific and technological progress can receive such an extra profit.

Hence, the conclusion can be made that intellectual rent has a productive nature and plays an important role in a market economy in the following ways:

- interest of the owners of intellectual capital in the implementation of innovations, aimed to increase competitiveness of their business, stimulates self-reproduction of productive rent-seeking behaviour of economic agents;
- motive to receive intellectual rent stimulates creative self-development of labor force and accumulation of intellectual capital, which leads to improvement in the technological level of production and increases productivity of labor;
- additional income, received by the owners of intellectual capital and intellectual products, promotes the consumer welfare and increases consumer demand;
- competitive innovations stimulate investment costs and lead to an increase in aggregate demand;
- intellectual rent generates positive "spillover effects" that do not need any compensations and which favour the society in general.

The modern national and foreign economic literature distinguishes different approaches to the classification of intellectual rent (Figure 1).

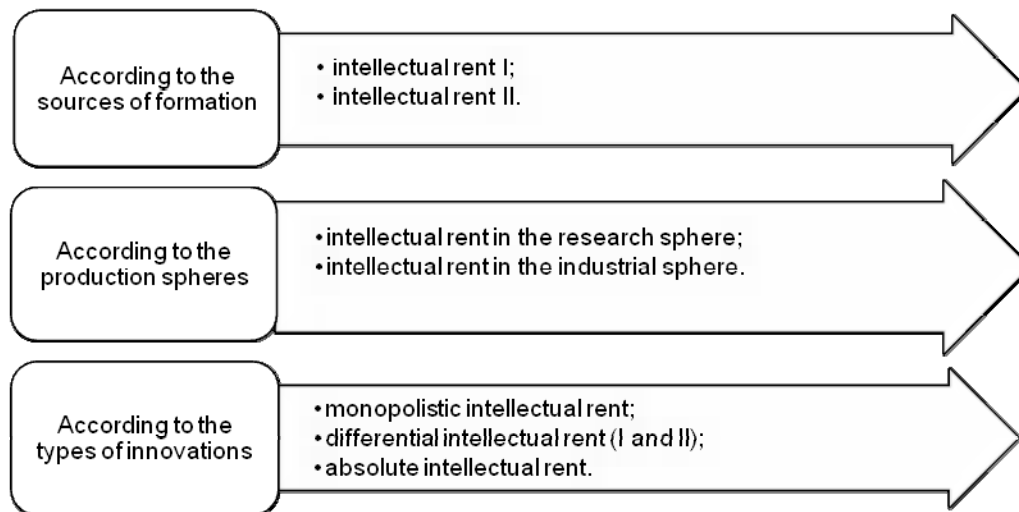


Fig.1. Classification of intellectual rent in the modern economic literature

Source: author's compilation

According to the sources of formation, two types of rent can be singled out: (1) *intellectual rent I*, that is created by the labor of highly qualified personnel, which possesses creativity and applies pioneer technologies in its economic activities; (2) *intellectual rent II* – extra profit, obtained as a result of a systematic use of continuous training of highly qualified personnel within the innovation cycle. According to the production spheres, the intellectual rent can be classified as following: (1) *intellectual rent in the research sphere*, which is based on scientific knowledge. It is created due to the public appreciation of scientific work and is expressed in a form of a premium for academic degrees, titles and an income from the products protected under the copyright law. The main prerequisite of its extraction is an institutionally fixed difference in qualification of scientists along with legal protection of their intellectual property. (2) *intellectual rent in the industrial sphere*, which is created by personal abilities and talent of employees under intellectualization of production. The main prerequisite of its formation is commercialization of the results of intellectual activity. It is expressed in a form of a price for the transfer of intellectual property rights on the results of intellectual activity as well as in the form of fines and penalties. Its extraction is conducted under a clear specification of intellectual property rights in the economy.

Taking into account the qualitative heterogeneity and quantitative limitations of innovations, the following types of intellectual rent can be distinguished: (1) *monopolistic intellectual rent*, which is generated by radical innovations (scientific discoveries). Such innovations are only possible in case of use of particularly valuable and unique features of intellectual property. This allows to set high monopoly prices in the market and get high monopoly profits; (2) *differential intellectual rent I*, that arises from the use of qualitatively best and average innovations (in terms of their functional suitability); (3) *differential intellectual rent II*, that is formed from the use of innovations, the quality of which has been improved as a result of additional investments in human capital; (4) *absolute intellectual rent* as an additional utility generated by innovations of any sort, which improves the quality of products and production technologies, reduces the cost of manufacturing and circulation of the products and brings additional income to its owner [12,13,14].

The modern economic literature has no generally accepted approaches to estimation of intellectual rent. Some researchers calculate the value of intellectual rent by subtracting the value of the product, manufactured without using the intellectual property, from the value of the product of the same type that was made while using the intellectual property [15]. The others define rent as a difference between individual value (utility) of intellectual resources and products, supply of which is inelastic, and their social (market) value (utility) or as a surplus of opportunity cost of limited intellectual resources and products. The value of intellectual rent can also be determined as a difference between an income of an owner of intellectual capital and an average income of an innovative company or as a difference between an income of an owner of intellectual capital, investor's income (that includes interest on invested capital and the risk premium) and an average income of an innovative firm.

Thus, at the microeconomic level assessment of intellectual rent ( $R_i$ ) is provided in a form of a multi-function:

$$R_i = f(x_1, x_2, x_3, x_4, x_5)$$

where  $X_1$  – value of objects of industrial property,  $X_2$  – number of objects of industrial property,  $X_3$  – value of the products, manufactured while using objects of industrial property,  $X_4$  – revenue from the sale of patents and transfer of rights under a license agreement,  $X_5$  – value of a goodwill as a difference between the market value of the company and its accounting value [16]. However, at the macroeconomic level intellectual rent is calculated as an amount of additional revenue, obtained from the sale of new products at higher prices; as a revenue from the sale of patents, licenses, know-how; as a benefit from improvement of capital assessment of innovative enterprises [14].

Another important theoretical and practical aspect of the analysis is the mechanism of distribution of intellectual rent between developers of innovative products, innovative enterprises and the state. Theoretically, the income, obtained from the use of intellectual capital, must be distributed between "intellectual" employees and innovative enterprises in proportion to the total separation of intellectual capital in two parts – human capital and structural capital. In practice, the firm preserves monopoly on intellectual capital and pays wages to the knowledge workers. As a result, part of the rental income is obtained by the owners of the firm. This type of relations is institutionally regulated by

an employment contract, which owners of human capital often seek to revise in order to obtain increase in wages [17, p.259]. The state, in turn, receives a part of the rent through its tax system. Participation of the state in the distribution of rent is theoretically reasoned by the necessity to finance development of science, technology, and education.

At the same time extraction and distribution of intellectual rent may be inappropriate due to the following reasons:

1) unlike the distribution of rent from natural resources, which must be assigned to the society as a whole, the distribution of intellectual rent is associated with clear specification of property rights on the results of intellectual activity;

2) extraction and accumulation of intellectual rent by the state does not guarantee the effective spending of funds on high-tech sector of the economy [11, p.124].

In this context, it is important to highlight the experience of intellectual rent distribution in developed countries, which indicates that the efficient patent system significantly increases the speed of implementation of innovations [18, p.19]. In a market environment the role of patents is reduced to the protection of the field of perspective fundamental developments from potential competitors. The research of Mansfield (1986) shows that in the most industries (e.g. textile industry, metal processing, manufacture of electrical equipment, instrumentation, manufacturing of office equipment, vehicles, rubber, etc.) patents do not play the role of a driving force of innovative development. However, in the pharmaceutical industry as well as in the production of chemicals, the impact of the patent system is much more significant [19]. Thus, in relation to these industries, many countries of the world nowadays place emphasis on harmonization of competition law along with improvement and enforcement of laws concerning protection of intellectual property rights. The governments of these countries add to the existing competition laws and legislations some normative exceptions that are aimed at regulation and support of innovative markets. Supporters of such measures believe that the patent monopoly along with rents are some kind of society payment for the development of science and technologies. Hence, they consider rent-seeking as an important tool to stimulate innovations [11, p.135]. On the other hand, the protection of intellectual property in knowledge-intensive industries, products of which have high social significance (e.g. pharmaceutical

industry) can lead to an increase in prices. Thus, the protection of intellectual property in these spheres may be weakened for the benefit of the society. For example, in Great Britain the issues of high prices on medicines are resolved within the complex government program *Pharmaceutical Price Regulation Scheme*, which fixes the planned rate of return on equity at 21% or 6% of sales. If a pharmaceutical company exceeds the rate of return by more than 40%, it must reimburse the excess revenue to the Department of Health [20, c.216-217].

It is important to mention that the regulation of rent relations in developed countries is based on the stable institutional framework, compatible with law and generally accepted standards of behavior. Whereas the transition economies are characterized by institutional instability and lack of clear specification of property rights. The continuous violation of the latter leads to the erosion of income flows from the products of intellectual activity and exhausts the intellectual potential of the society. As a consequence, the unproductive rent-seeking behaviour becomes dominating in the economy. It creates the artificial barriers to the movement of resources, establishes non-competitive methods of their detention and causes underfunding of innovation sector. The analysis of rent relations in the economy of Ukraine shows that the main part of excessive profits is formed in the extractive industries and in the sphere of money circulation. According to the State Statistics Service of Ukraine during the period of 2012-2013 the most profitable spheres of Ukrainian economy were limited to the metallurgy, banking and financial activities. Whereas, the knowledge-intensive sector, which includes production of electrical and optical equipment, machinery, vehicles etc., remained highly unprofitable (see Figure 2). The profitability level of large and medium-sized enterprises in the sphere of process manufacturing in Ukraine in 2012-2013 totaled to 2.1% and was significantly different from the rate that is considered normal for the world economy (7.8%), not to mention the fact that the yield of high-tech companies in the world can reach 35-40% [21]. The low rate of return on high-tech sector and migration of capital to the field of raw materials are two crucial factors that led to underinvestment of innovations and increased technological dependence of the national economy.

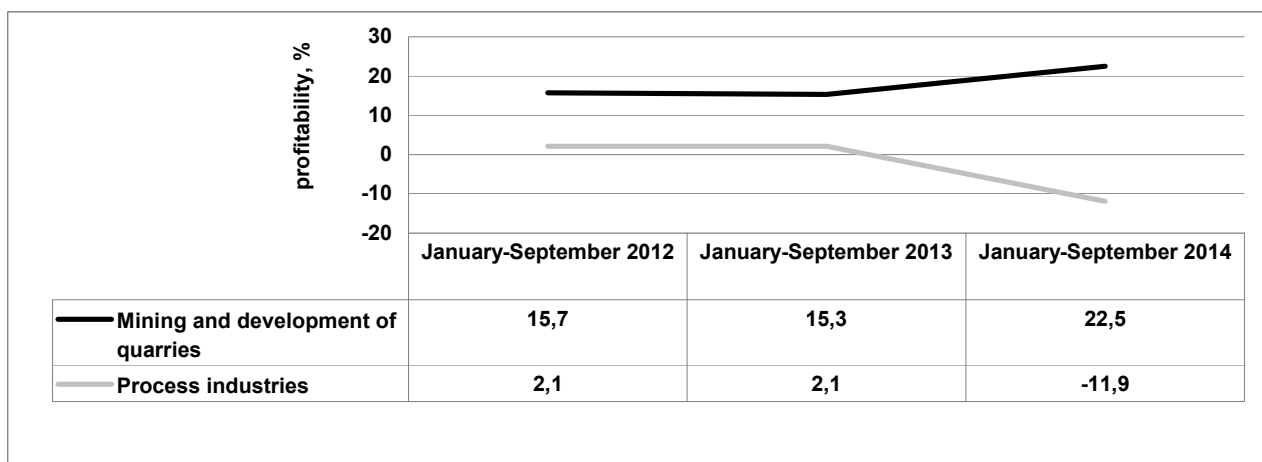


Fig. 2. Profitability of operative activity of big and medium enterprises in Ukraine according to the types of industrial activity, % [21]

The priority objective of the EU over the past decade was improvement of the competitiveness of European countries, partly through accumulation of intellectual capital. According to the Lisbon strategy, 3% of GDP of the European countries must be invested into conduction of research and development (R&D). Even though this goal was not reached by many members of the EU in 2010 (see Figure 3), it remains one of the five key objectives

identified within the Europe-2020 strategy. In 2012 the expenditure on R&D in the EU amounted to 898.3 million €, which was 2.9% higher than in 2011 and 42.9% higher than in 2002. In 2011 the investments in R&D in the EU amounted to 87.0% of the same investments in the US and were 2.7 times higher than in China. Meanwhile in Ukraine in 2012 the share of expenditure on R&D was only 0.75% of GDP [22, p.158].

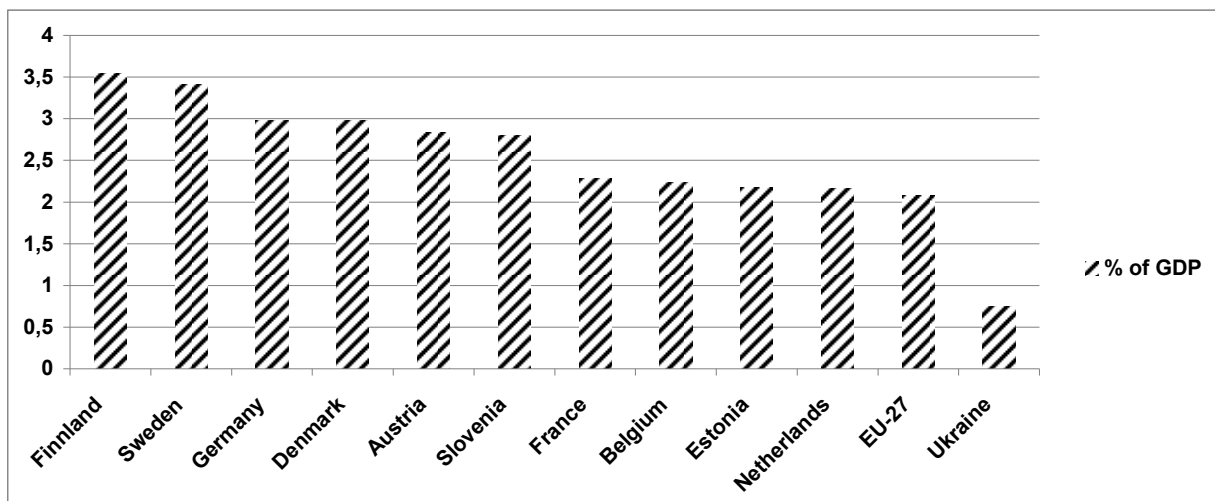


Fig.3. Share of expenditure on R&D as a part of GDP of some European countries and Ukraine in 2012, %

Source: [22].

In 2013 a number of the enterprises and organizations in Ukraine, which were engaged in the development and use of advanced technologies and objects of intellectual property rights, decreased by 2.6% in comparison to 2012 [23]. During the period of 2000-2013 the share of firms involved in innovative activities ranged from 11% to 18%,

and the proportion of companies that implemented innovations was not higher than 8-15%. The share of sales of innovative products as a percentage of sales of industrial products has decreased by more than half over the last ten years (see Table 1).

Table 1. Introduction of innovative technologies by industrial enterprises in Ukraine in 2001-2013 \*

| Year | Share of firms that developed innovations,% | Share of firms that implemented innovations,% | Amount of the new technological processes that were implemented | Share of sales of innovative products as a percentage of sales of industrial products, % |
|------|---------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------------------------|
| 2001 | 16,5                                        | 14,3                                          | 1421                                                            | 6,8                                                                                      |
| 2002 | 18                                          | 14,6                                          | 1142                                                            | 7,0                                                                                      |
| 2003 | 15,1                                        | 11,5                                          | 1482                                                            | 5,6                                                                                      |
| 2004 | 13,7                                        | 10,0                                          | 1727                                                            | 5,8                                                                                      |
| 2005 | 11,9                                        | 8,2                                           | 1808                                                            | 6,5                                                                                      |
| 2006 | 11,2                                        | 10,0                                          | 1145                                                            | 6,7                                                                                      |
| 2007 | 14,2                                        | 11,5                                          | 1419                                                            | 6,7                                                                                      |
| 2008 | 13                                          | 10,8                                          | 1647                                                            | 5,9                                                                                      |
| 2009 | 12,8                                        | 10,7                                          | 1893                                                            | 4,8                                                                                      |
| 2010 | 13,8                                        | 11,5                                          | 2043                                                            | 3,8                                                                                      |
| 2011 | 16,2                                        | 12,8                                          | 2510                                                            | 3,8                                                                                      |
| 2012 | 17,4                                        | 13,6                                          | 2188                                                            | 3,3                                                                                      |
| 2013 | 16,8                                        | 13,6                                          | 1576                                                            | 3,3                                                                                      |

\* Source: the table is based on the data of [22].

The share of innovative enterprises in the Ukrainian economy depends on the type of economic activity in which they are involved (see Figure 4). In the process industries, the share of such companies was 15,8% in 2012, in the pharmaceutical industry – 34,2%. In the metallurgy and metalworking this rate was the lowest and equaled 12,3% and 17,1% correspondingly. According to

the research conducted in 2014, the leading branch of the Ukrainian industry, where rent-seeking can be observed at the largest extent, is siderurgy. It is followed by the Ukrainian oil and coal sectors [24]. Not surprisingly, the rents, obtained by firms that belong to the aforementioned industries, are not spent for the purposes of innovative development and modernization.

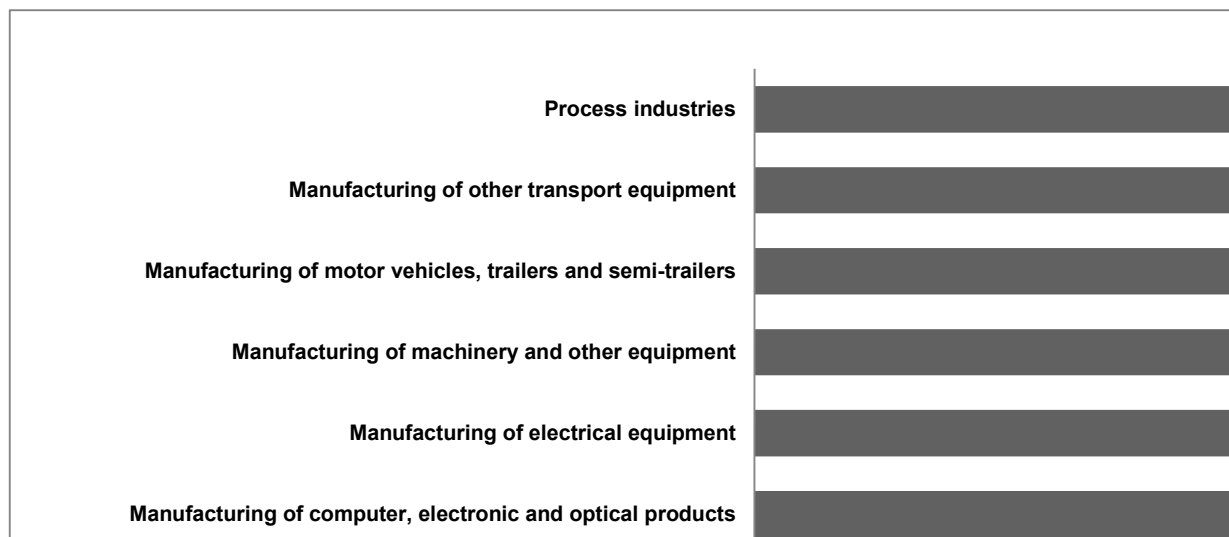


Fig.4. Share of innovative enterprises according to the different types of economic activity in Ukraine in 2012, % [25]

The analysis shows that the following restrictions exist on the way of expanded reproduction of intellectual rent and its redistribution for the purposes of innovative development of the Ukrainian economy:

- high transaction costs that arise under enforced property rights on intellectual resources and products of intellectual activity due to the lack of clear specifications of such resources and products;
- information asymmetry that exists between the contracting parties: owners of intellectual capital, innovative companies and public authorities that are entitled to partial or complete exclusion of intellectual rent;
- imperfect competition and weak legal protection of intellectual property of innovators;
- lack of efficient accounting instruments and methods of stimulation of productive use of intellectual rent under existing mechanism of innovative development.

Thus, it is important to emphasize that the unclear specification of intellectual property rights in the Ukrainian law is one of the most crucial problems that hampers circulation of products of intellectual property as well as their efficient use [26, p.30]. Demonstrative in this respect is the indicator of the World Economic Forum, which shows the protection of intellectual property and varies between 1 (very poor protection) to 7 (very strong protection). According to this indicator, Ukraine received 2,6 points and was ranked 117<sup>th</sup> out of 142 countries in 2012, which implies relatively poor protection of intellectual property by Ukrainian legislature [27].

Under these circumstances, the improvement in the state regulation of intellectual property and intellectual rent requires the following measures:

- 1) Increase in expenditures on R&D as a share of the country's GDP;
- 2) State support of inventions, innovations and creative intellectual work;
- 3) Establishment of a national system of training and retraining of specialists in the field of intellectual property;
- 4) Provision of clear specification of the intellectual property rights through improvement of the national legislation in congruence with international norms and standards;
- 5) Creation of institutional background that would facilitate efficient functioning of a market of intellectual products through establishment of formal rules and informal norms of civic responsibility;

6) Implementation of the effective mechanism of commercialization of intellectual property and introduction of an objective market evaluation of intellectual products;

7) Institutionalization of relations in the spheres of production, redistribution and use of intellectual rent as a factor income;

8) Provision of instructive information material for the owners and users of intellectual property in order to raise legal awareness and respect of the intellectual property rights in the society;

9) Improvement of infrastructure of innovative activity through provision of risk insurance to the owners of intellectual capital;

10) Further policy improvement in the areas of accumulation of intellectual rent and in the mechanism of its redistribution for the purposes of innovative development.

**Conclusion.** The transition to a post-industrial society and knowledge economy requires efficient elimination of the problems of accumulation and use of intellectual capital, which is one of the key elements of innovative development and strong competitiveness of the national economies. Under these conditions, the government must prioritize the efficient regulation of intellectual rent aimed at stimulation of innovations and acceleration of socio-economic dynamics.

The modern economic literature interprets intellectual rent as an additional income from intellectual activity. This income is generated by intellectual capital that is institutionalized into intellectual property. The main prerequisites of the formation of the intellectual rent are: 1) reinforcement of information and knowledge as the main factors of modern economic development; 2) limited supply of intellectual capital and high profitability of its use; 3) temporary monopolistic ownership of intellectual resources and products under clear specification and enforcement of intellectual property rights.

The complexity of rent relations that arise in the sphere of intellectual activity results into the complex nature of the intellectual rent. According to the sources of formation, two types of rent can be distinguished: intellectual rent I and intellectual rent II; according to the production spheres: intellectual rent in the research sphere and intellectual rent in the industrial sphere; according to the types of innovations: monopolistic intellectual rent, differential intellectual rent (I and II) and absolute intellectual rent.

In contrast to the political and bureaucratic rents, intellectual rent has productive nature and, hence, facilitates economic development. The pursuit of intellectual rent encourages creative self-development of the workforce and increases the interest of the owners of intellectual capital in improvement of the technological level of production and labour productivity. This leads not only to the rising welfare of the owners of the intellectual capital, but to the higher welfare of the society in general. Under these conditions reformation of the state regulation of the intellectual rent has a crucial meaning. It implies not only a complex revision of the system of principles, methods and tools, used by public authorities in the process of rational organization of intellectual property relations, but also clear specification, protection and enforcement of the intellectual property rights in order to create a monopolistic environment for the intellectual products and to secure an excess profit of the owners of intellectual capital.

As opposed to the developed countries, the biggest part of the extra profits in Ukraine is formed in the mining industry, even though the intellectual capital, accumulated in the national economy, can not only complement the efficient use of natural resources, but also compete with them in augmentation of national wealth. Unfortunately the efficient use of the intellectual capital for the purposes of innovative development of the Ukrainian economy is hampered due to the lack of necessary institutional and organizational background. Thus, the improvement in the state regulation of intellectual property and intellectual rent can be accomplished through: increase in expenditures on R&D as a share of country's GDP; state support of inventions, innovations and creative intellectual work; establishment of a national system of training and retraining of specialists in the field of intellectual property; provision of clear specification of intellectual property rights through improvement of the national legislation in congruence with international norms and standards; creation of institutional background that would facilitate efficient functioning of a market of intellectual products through establishment of formal rules and informal norms of civic responsibility; implementation of the effective mechanism of commercialization of intellectual property and introduction of an objective market evaluation of intellectual products etc.

In this context the further research, aimed at the analysis of the integration of Ukrainian economy into the global economy through the effective use of accumulated intellectual potential and intellectual rent is worth to be considered.

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В. Базилевич, д-р екон. наук, проф.,  
А. Гражевська, асп.

Київський національний університет імені Тараса Шевченка, Київ

## ЕФЕКТИВНЕ РЕГУЛЮВАННЯ ІНТЕЛЕКТУАЛЬНОЇ РЕНТИ ЯК ЧИННИК ІННОВАЦІЙНОГО РОЗВИТКУ ЕКОНОМІКИ УКРАЇНИ

*Розкрито сутність, структуру, передумови формування та види інтелектуальної ренти, охарактеризовано її специфічні властивості, проблеми оцінювання та розподілу між основними економічними суб'єктами. Проаналізовано досвід розвинених країн у сфері регулювання інтелектуальної ренти, виокремлено лімітуючі обмеження її розширеного відтворення в національній економіці та обґрунтовують практичні рекомендації щодо ефективного регулювання цього виду надприбутку в Україні.*

*Ключові слова: інтелектуальна рента; види інтелектуальної ренти; розподіл інтелектуальної ренти; державне регулювання інтелектуальної ренти.*

В. Базилевич, д-р экон. наук, проф.,  
А. Гражевская, асп.  
Киевский национальный университет имени Тараса Шевченко, Киев

### ЭФФЕКТИВНОЕ РЕГУЛИРОВАНИЕ ИНТЕЛЛЕКТУАЛЬНОЙ РЕНТЫ КАК ФАКТОР ИННОВАЦИОННОГО РАЗВИТИЯ ЭКОНОМИКИ УКРАИНЫ

*Раскрыта сущность, структура, предпосылки формирования и виды интеллектуальной ренты, охарактеризованы ее специфические свойства, проблемы оценки и распределения между основными экономическими субъектами. Проанализирован опыт развитых стран в сфере регулирования интеллектуальной ренты, выделены лимитирующие ограничения ее расширенного воспроизводства в национальной экономике и обоснованы практические рекомендации по эффективному регулированию этого вида сверхприбыли в Украине.*

*Ключевые слова: интеллектуальная рента; виды интеллектуальной ренты; распределение интеллектуальной ренты; государственное регулирование интеллектуальной ренты.*

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E. Bako, PhD in Economics, Associate Professor,  
S. Varvari, PhD in Economics, Lecturer  
"Babeş-Bolyai" University, Cluj-Napoca, Romania

### ECONOMIC CRISIS AND FOREIGN DIRECT INVESTMENTS IN ROMANIA

*Foreign direct investments represent an essential factor of economic development and growth at all levels: national, regional and local (county). The authors analyse the evolution of foreign direct investments in Romania over the last decade, taking into consideration the influence of the economic and financial crisis, different territorial levels, types of foreign investments, the economic activities and also the main countries of origin. The aim of the paper is to explain some of the reasons for the illustrated evolution of FDI and to reveal some policy implications for the future period.*

*Keywords: foreign direct investments, FDI flows, economic and financial crisis, types of investments.*

**Introduction.** Romania as many other countries has a stringent necessity of foreign direct investments for these could have an essential contribution to maintaining macro-stability assuring the supplementary capital and technology needed for restructuring various sectors of the economy.

Foreign direct investments played an important role in the Romanian economy in the pre-accession period, representing the main means for covering the lack of own capital. FDI assured the necessary capital and technology for restructuring different sectors of the economy and the access to modern technologies, competitive management methods, qualification of the labour force and to new markets.

Over the past years, Romania benefited from increasing FDI flows due to the macroeconomic stabilization, strong GDP growth, large-scale privatizations, the simplified legislative framework in what it concerns the ease and costs to create a firm, the improvement of the business environment, the introduction of the flat tax and the promotion policies, and the increase in the investors' trust in Romania taking into consideration the progress made by the country for EU accession.

After the accession, the competition for the attraction of the foreign investors increased and the new member states, among which Romania, did not succeed to attract the same flows as in the period before accession. These flows slowed down after 2008 due to less capital inflows from privatizations and also due to the global economic crisis that brought changes in the level of FDI flows all over the world.

**Methodology.** The authors analyzed the evolution of FDI flows and stocks during the time period 2003-2013 for European Union and Romania using data provided by UNCTAD, the National Bank of Romania and the National Office of Trade Register Statistics. The analysis approaches different territorial levels (NUTS1, NUTS2 and NUTS3), different types of foreign investments (Greenfield and Mergers&Acquisitions), economic activities in which FDI have been done and also the main

countries of origin for Romanian FDI inflows. The maps have been generated using GIS.

**Results. 1. European context regarding FDI.** The decade 2003-2013 was characterized by important changes in the flows of FDI both at global and European level. The FDI flows knew high increases between 2004-2007, followed by an important decrease in 2008 and 2009, due to the economic and financial crisis, a slow reversal in the following two years and again a fall in the last two years.

The beginning of the 21<sup>st</sup> century triggered a period of great decrease in the FDI flows at global level, when the inflows and outflows of FDI halved, due to the low economic growth, followed by a decrease of the capital, a reduction in the number of M&As and a reduction in the TNCs activities and expansion. This reduction was also seen at European level, excepting the CEE countries, which registered record inflows in 2002, but 2003 brought important decreases in this region also, mainly due to the decrease in the FDI inflows in the future EU members.

Year 2004 brings a return in the FDI flows especially in the developing countries in which the production costs are lower due to the cheaper labour and raw materials. In the developed economies of the EU such as Denmark, Germany, Netherlands and Sweden, the inflows of FDI continued to decrease (except for Great Britain).

The increase in FDI inflows and outflows continued in 2005-2007 reaching, at EU level, 864 billions USD and attracting 43% of the world's inflows. In 2006 the FDI flows succeeded to outreach the level of 2000, the main recipients being UK and France. EU remains the leader in what it concerns the FDI outflows holding 50% of the global total. In 2007 a new record was registered which covered all categories of countries, more in developed than developing ones. In EU the main recipients remained UK and France.