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REGULAČNÝ MECHANIZMUS INVESTIČNÉHO ROZVOJA REGIÓNU: UKAZOVATELE A STRATEGICKÉ IMPERATÍVY

REGULATORY MECHANISM OF INVESTMENT DEVELOPMENT OF THE REGION: INDICATORS AND STRATEGIC IMPERATIVES

Lidiia Karpenko¹, Mykola Izha²

Článok skúma moderné nástroje budovania regulačných mechanizmov rozvoja investícií, ktoré majú špeciálny súbor ukazovateľov a strategických imperatívov. V článku je skúmaný funkčný aspekt a uvedený systém indikátorov investičného projektu regionálneho rozvoja. Predstavené sú počty všeobecných aktívnych princípov rozvoja stratégie. Článok predstavuje inštrumentálny základ pre extrapoláciu a budovanie inovatívneho a investičného rozvoja regiónu. Skúmajú sa koncepčné základy možných rizík a základná ekonomická interpretácia v medzinárodnom podnikaní. V praktickej časti článku sa uvádza ekonomické a štatistické skúmanie priamych zahraničných investícií v Odeskej oblasti. V článku je navrhovaná systematizácia hlavných ukazovateľov používaných v ekonomických a štatistických metódach na predpovedanie úrovne rizika pri hodnotení efektívnosti investičných projektov.

Kľúčové slová: priame investície, rozvoj investícií, investičná stratégia, hrubý regionálny produkt, kvalitatívne ukazovatele, rigiálny rozvoj

Paper investigates the modern instruments for building the regulatory mechanism of investment development that has special platform of indicators and strategic imperatives. The functional aspect is investigated in the work and the system of indicators of investment project of the regional development. Numbers of active general principles of strategy development are presented as well. Paper presents an instrumental basis for extrapolating and building innovative and investment development of the region. The conceptual bases of possible risks and the essential economic interpretation in international business are examined. The practical side of the work is

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expressed by the economic and statistical investigations of foreign direct investment in Odessa region. In this paper, authors propose systematisation of the main indicators which are used in economic and statistical methods for predicting the level of risk in assessing the effectiveness of investment projects.

Keywords: direct investment, investment development, investment strategy, gross regional product, qualitative indicators, territorial development

JEL: M21, M29, O16

1 INTRODUCTION

The current state of economic and social development of Ukraine requires an understanding of the effective role of investment policy in the economic system of the state. A kind of catalyst for economic development of any country is studied. The investment process is considered as a vector of strategic development and forms the basis for successful socio-economic development of the state and its regions. Activation of investment processes and effective increase of investments are important factors in the implementation of structural reforms in the economy and the implementation of innovation and investment model of development in Ukraine. Therefore, the implementation of current and long-term objectives of economic and social reforms today requires not only a comprehensively balanced and sound investment policy, but also the formation of effective mechanisms for regulating investment processes, taking into account the current state of economic development.

Investigating the mechanisms of public administration in Ukraine, the target, functional, methodological, information-analytical and instrumental parts are need to be identified. Giving a positive assessment of this proposal, we note that the mechanism of systematic management of development processes in the region should have a structure, correlate with the structure of tasks and functions, be systemically integrated, take into account their purpose and content, strengthen its flexibility and adaptability to systemic transformation changes and present it as a mechanism for systematic management of regional development processes.

Numerous economic studies, the implementation of joint business projects and the mentality of Ukrainian society have proven the need to attract foreign investment for the progressive future of Ukraine and the achievement of European living standards. Foreign capital can significantly influence the introduction of technical innovations and advanced technologies in the area of production, provision of financial and non-financial services and the quality of management in the real and financial sectors of the economy. Undoubtedly, foreign investment as a source of capital is more attractive than credit resources, which multiply the total public debt. And their limited scope necessitates concentration on the most significant problems and trends that must be taken into account when improving the investment climate and optimizing the business environment (Elton and Gruber, 2014).

2 LITERATURE REVIEW

The main goal of the macroeconomic policy strategy is to provide conditions for stable long-term growth, which would contribute to the structural-innovative and

social reorientation of the economy as well as to the formation of a favourable investment environment. The results of basic research embodied in domestic and foreign literature clearly indicate that the processes of economic renewal and growth are determined by the size and structure of investments, and the quality and speed of their implementation. A wide range of issues related to research in the area of investment activity and attracting foreign investment in order to improve the investment climate are reflected in the works of domestic and foreign scientists and economists. It is also clear that academic economists had an impact on policy.

Ilysheva and Krylova (2014) in their work paid attention to accounting, analysis and strategic management of innovation activity. Elton and Gruber (2014) investigate the question of modern portfolio theory and investment analysis. Pearce (2013), for instant, had dedicated his works to strategic management, formulation, implementation, and control. Lipkova (2012) explore development issues of innovation policy of the European Union. Research in the formation of international strategies is incorporated in Lipkova and Bohac (2016). Mraz and Zubro (2016) investigate the issues of the formation of state policy, the establishment of state boundaries in modern globalization changes. Kukosh (2018) explores investment potential of the region from the standpoint of districts using the method of multidimensional scaling. Karpenko (2019, 2020) is working on the issues of innovative trends in the process modelling of international strategies and the systematic of fundamental factor models. Drobyazko (2020) presents innovative methods for the development of economic (business) security at the micro and macro levels. Thus, the chosen research topic is relevant, requiring constant improvement and elaboration of ways to optimize investment activity.

3 RESEARCH GOAL

The aim of the work consists of studying the regulatory mechanism of investment development of the region that has special platform of indicators and strategic imperatives. Authors systematized the instrumental base for extrapolating and building the prognostic validity of international investment activity at the territorial level. The empirical part of the work is expressed by the economic and statistical investigations of foreign direct investment in targeted region. In this paper, authors propose systematisation of the main indicators which are used in economic and statistical methods for predicting the level of risk in assessing the effectiveness of investment projects. Three key factors in investment analysis and characteristic of their application for evaluating investment processes and justifying the development of international strategies, their variability and optimality are proposed. In the article there are methodical approaches to test the reasonableness of price: earnings per share, dividends, price range. Therefore, the mechanism of systematic management of the sustainable processes and balanced development of all territories of the regions should

be implemented within the pilot organizational project. The main tools of the development of the organizational project mechanism and their stages are proposed.

4 DATA AND METHODOLOGY

There are two broad procedures used by investors to select stocks and take the final decision to invest. One is called the *fundamental procedure*, and the other is *technical procedure*. Investors usually choose between these procedures for their method of operation, but some combine parts of the two procedures. In the fundamental approach, the investor studies the company, its industry, and its market and tries to understand what makes the company run and what its future will be. The technician pays more attention to the stock market than to the individual company, expecting to make more money from the price movement caused by different stock market forces than by the progress achieved by a particular company through business processes. Both of these procedures enable investors to gain profits, but there are great differences.

In the fundamental approach, the investor is looking for companies to grow and increase in value over a long time period. The pie gets bigger and everyone benefits – customers, employees, and shareowners. Three companies widely held by NAIC members are good examples of fundamental growth. NAIC members started buying these companies twenty years ago with the expectation that they would continue to grow, and the companies are now many times the size they were when the clubs made their first purchases. The companies are AFLAC, McDonald's, and RPM. Clubs started to buy McDonald's when it had a couple hundred stores; now it has thousands. Its stock price has multiplied many times. The company whose growth is driven by management can produce tremendous results for the investor. NAIC's stock study procedures are designed to help you identify such companies.

In case of technical approach, the goal is usually to catch fairly quick price moves. These moves are caused more often by conditions in the stock market itself than by the nature of the individual security, although there are technical procedures involving market factors concerning only one particular company. Usually profits of 20 to 50% are taken when they become available, and holding the stock for long-term growth is not contemplated. The result is that the first to bail out reap the largest profits. The latest in and slowest out make less or lose.

Peper use some of basic macroeconomic indicator as well. *Gross regional product (GRP)* is an indicator that measures gross value added, calculated by excluding intermediate consumption volumes from the total gross product. At the national level, the GRP corresponds to the gross national product. It is one of the basic indicators of the national accounts system. It is calculated at the level of industries and sectors by the production method as the difference between the output of goods and services and intermediate consumption formed from the value of goods and services that are transformed or completely consumed in the production process. The term "gross" indicates that the indicator is determined before deducting consumption of fixed capital. Gross regional product is calculated in current basic and market prices (nominal volume of gross regional product), as well as in comparable prices (real volume of gross regional product).

Inflation, measured by the annual growth of the implicit *GDP deflator*, measures the rate at which prices change in the economy as a whole. The implicit *GDP deflator* is the ratio of GDP at current local prices to GDP at constant local prices.

Foreign direct investment (FDI) is a long-term investment of material assets by non-resident companies in the country's economy (for example, for the organization and construction of enterprises). It is calculated in million USD.

Foreign direct investment is the most demanded form of capital investment for developing economies, as it allows the implementation of large projects; in addition, new technologies, new corporate governance practices, etc. are entering the country.

Econometric modelling begins with a preliminary analysis of statistical data, which may include descriptive statistics for each variable (mean, variation, stationary, etc.), an assessment of the strength and direction of the relationships between indicators (correlation, scatter plots, etc.).

In the practice of statistical analysis of the main macroeconomic indicator – *Gross Domestic Product (GDP)*, it is customary to calculate not the aggregate index (1), but the average harmonic equation (2). Aggregate index is expressed as:

$$I_p = \frac{\sum p_1 Q_1}{\sum p_0 Q_1} \quad (1)$$

Average harmonic index is expressed as follows:

$$I_p = \frac{\sum p_1 Q_1}{\sum \frac{p_1 Q_1}{i_p}} \quad (2)$$

where: I_p is consolidated price index, i_p is GDP deflator and $p_1 Q_1$ is value of goods and services produced in the reporting period.

The calculation of the price index according to equation 2 shows the ratio of new and old prices for goods and services produced in the reporting period. This index is part of the system of indices that allows you to assess the impact of quantity of goods and services (Q) and prices (p) on the dynamics of their value.

Attracting foreign direct investment (FDI) and socio-economic development of the region are interrelated processes. It is considered expedient to assess the impact of FDI revenues, as a factor, on a number of effective indicators of socio-economic development of the Odessa region. The financial component covers two dependent variables: foreign direct investment and unemployment in the region. In order to avoid the phenomenon of multicollinearity, all other factors with low impact on GRP were excluded from the regression model. The differentiation of these factors makes it possible to investigate the degree of influence of each of them on the dynamics of GRP, as well as the time lag during which their effect is manifested on the basis of correlation and regression analysis and the method of statistical equations.

The method of statistical equations of dependences allows solving the following problems: identification of the main direction of development (trend), substantiation of forecast levels of economic phenomena, assessment of the intensity of the use of factors that shape the development of the economic phenomenon in the dynamics. The study provides an analytical basis for integrated management analysis of innovation and investment activities of the particular region or number of enterprises in a competitive environment. It also allows determining the investment potential of the region through the use of predictive validity.

5 KEY RESEARCH FINDINGS

The National Association of Insurance Commissioners (NAIC) serves to protect the public interest, promote competitive markets, and improve the state regulation of insurance. The NAIC Financial Data Repository (Database) is updated every year by the National Association of Insurance Commissioners (NAIC) on behalf of and at the direction of its members, the state insurance commissioners.

Participation in the Database provides essential data for the Insurance Regulatory Information System (IRIS) Financial Ratio Reports, risk-based capital analysis, and other solvency-related reviews of individual companies, including reporting compliance and financial analysis. This serves to assist in preventing insolvencies for which liability is imposed on insurers under state guaranty fund laws. It also serves several other regulatory information needs, such as mandated: experience analysis for particular lines or sub lines for individual companies and groups; general market structure and performance analysis; and statistics by company, groups or the industry as a whole. It is extremely important that all filings are accurate, complete, and timely. The NAIC will be working to ensure that companies have complied with electronic filing requirements and financial reporting requirements contained in the Blanks, Annual Statement Instructions and Purposes and Procedures Manual of the NAIC Investment Analysis Office, and any data validation failures are resolved.

Today's most successful investment clubs with assets of hundreds of thousands dollars, a million dollars, or more started out, years ago, with only a few dollars. Most of the members in those clubs had no previous stock market experience, and their investment funds were limited, as was the time available to devote to club activities. Yet they've achieved results that would make many professional investors envious. With the basic principles recommended by NAIC and practiced by successful clubs in the past, you can apply a consistent philosophy aimed at long-term, proven investment objectives (Ilysheva and Krylova, 2014). Since 1951, these simple rules have led investors to consistently superior results.

Principle 1: Invest Regularly, Regardless of the Market Outlook. When you start investing, you may be nervous about timing. What if you commit your capital and the market immediately heads south? Could there be another Black Monday, or worse, after your money is invested?

Time and experience will help allay these fears. The market's overall trend for decades has been upward, at an average annual compound rate of about 10% percent despite intermittent cycles of boom, recession, depression, and recovery. Once you

recognize the rhythm of market cycles, fluctuations will no longer distract you; instead, you'll welcome market dips as buying opportunities.

Investors minimize risk when they purchase shares they intend to hold as long as the business operates successfully (Kukosh, 2018). In contrast, *speculators* who try to forecast near-term market fluctuations magnify their risk tremendously. We've found that half of all investment clubs go out of business within the first eighteen months because of conflict between those who believe in long-term investing and those advocating speculative trading. Be sure your members agree on a long-term philosophy before you get started.

Principle 2: Reinvest All Earnings. Put your investment earnings back into the market. This will let you maximize your profits through compounding, so you'll earn more than you would have just by keeping your original capital at work.

Principle 3: Invest in Growth Companies (Kukosh, 2018). Buy shares in businesses whose sales and earnings are moving ahead faster than the gross domestic product, and whose records suggest they will be far more valuable five years in the future.

Principle 4; Diversify to Reduce Risk (Karpenko, 2018). Some of your selections will be great successes, while others will post disappointing results. Since it is impossible to predict the future with certainty, you cannot expect every outcome to reach your forecast. With diversification, you need only realize an *average* advance that meets your goal; an occasional mistake will not prove disastrous.

The next step we are going to research key *factors in investment analysis*. Club members should agree that no stock will be purchased without advance analysis. Members are not expected to become professional stock analysts although many investment club members have done so. However, you should become proficient in applying a few essential tests to enhance your prospects for success and reduce your risk in buying and selling stocks.

As you pursue your goal of achieving 100% appreciation within five years, your members should analyze every prospective purchase for (1) the company's management capability, as evidenced by growing sales and earnings, pre-tax profit margin, and superior return on stockholders equity; and (2) a reasonable current share price that can be expected to rise as financial results improve in the future.

Management Capability. The drive of a corporation's management is the single most influential element of growth. When investment clubs give undue attention to industry outlook ("Health care is bound to grow") or the product of a company ("Fat-free food ingredients are certain winners"), they ignore, to their later regret, that only the best-led companies succeed over the long run. Growth is most reliable when it is produced by good management. Apply these three tests of management:

1. *Rate of growth:* Other factors being equal, over the long term an investment is likely to increase in value at about the same rate that sales grow. The companies you select as possible investments for your club should be those whose sales have increased at least at the expected rate for their size as described above. Further, each company should offer the promise of continuing advances.

2. *Pre-tax profit margin:* This margin is calculated by deducting costs from sales and then dividing the result, profit before taxes, by sales (see equation 1):

$$\frac{\text{Pre-tax profit (Sales - Costs)}}{\text{Sales}} = \% \text{ Pre-tax profit} \quad (1)$$

Comparison with other companies in the same industry will show whether the margin is average, better than typical, or under par. Obviously, a higher margin is preferable. Warning bells should ring if the margin is far above the averages of other companies. That could mean there's a distortion in the way profits are being reported, and chances are the high rate won't be repeated. If the high margin is for real, competition will be quickly attracted.

3. *Earnings on stockholders' equity*: Another mark of good management is a high percentage of earnings on stockholders' equity (which is net earnings divided by the sum of the value of preferred stock, common stock, and retained earnings). Compare the company being considered with others in the same industry. The same caveat applies as before: An unusually high rate of return may indicate distortion in the numbers or a temporary advantage (Karpenko, Izha, Rachynskyi 2020).

The three basic tests above should be employed from the outset on every stock you study. There are three ways to test for reasonableness of price (Karpenko and Pashko 2019).

1. *Earnings per share*. Earnings should be growing on a per-share basis at approximately the same rate as sales. Under occasional market conditions, you will find growing companies – particularly smaller ones – that can be bought for no more than the sum of the estimated earnings per share for the next five years. This situation is rarely found, but when it is, you have an exceptional buying opportunity.

2. *Dividends*. Generally speaking, a quality growth company pays out no more than half of its earnings; the remainder is retained to build the business. If you as an investor can expect over the years a dividend yield of 4 to 6 percent on the price paid for the stock, with retained earnings devoted to fuelling growth, you can also anticipate stock price appreciation. When the stock you're considering has a track record of rapid growth in sales and earnings per share, be content with a relatively modest payout. The company can probably achieve greater value for you in building the business than you can attain elsewhere with your dividends.

3. *Price range*. Study the price range of the stock over the past five years. If you review the lows, you'll get a sense of where the stock might be bought at some point during the year to come. Looking at the highs, you'll see where the stock might be sold, should the club wish to sell. Although this is admittedly a rough test, it gives you a good general guideline for recognizing an excessively high current price.

The purpose of the mechanism of system management of regional development processes (hereinafter – the system management system) is a systemic comprehensive targeted impact on providing conditions for interaction, complementarily and mutual support of the main, auxiliary and service processes of regional development to achieve development goals and stimulate support for its positive trends. The mechanism of system management should influence formation of consistent target orientation of service of processes of regional development by system influence on quality of realization the tasks by components of development

management with observance of concept principles of sustainable development of Ukraine, allocation of general purposes and definition of technologies of their achievements.

Thus, the mechanism of system management of regional development processes can be described as a set of local and integrated management mechanisms, interconnected goals, purpose, content and structure of tasks and functions of system objects of management, capable of forming and providing system influence on all elements of controlled development processes due to the cumulative approach, which provides unity in the choice of ways of further development, the use of comparable algorithms and methods of systemic impact.

The structure of the system control mechanism is characterized by multi-plane, multi-subjectivity and multi-step construction (Lipkova 2012). The system of evaluation of the results of its influence also becomes multicriteria. Therefore, the mechanism of systematic management of the sustainable processes, balanced development of all territories of the regions should be implemented within the pilot organizational project (Lipkova and Hovorkova, 2018).

The main tasks of the development of the organizational project mechanism are proposed to be carried out in stages (Table 1).

Table 1: Stages of development of organizational project mechanism

<i>Stage</i>	<i>Content</i>
Theoretical – theoretical definition of theoretical components of the system management mechanism	<ul style="list-style-type: none"> – Definition of general categories of regions sustainable development that do not claim full use in operational activities in specific conditions of sustainable development, namely: region, system features of the regional economy, system elements, factors of influence, processes. – Definition of the conceptual apparatus of development of territories. – Definition of the list of the basic processes of development and kinds of activity concerning their maintenance in the territory of regions in system "the nature – a society – the person". – Identification of contradictions in the strategy and practice of the region development and means of overcoming them
Experienced research of features of region as sphere of the mechanism application of system management	<ul style="list-style-type: none"> – Installation of systemic elemental economic and spatial structure of the region, types and structure of resources, types of activities, development processes, technologies used and tools for their implementation. – Analysis of the development goals of the components and their communication and orientation. – Defining mechanisms for managing development processes and selecting from them agreed and uncoordinated with each other. – Definition of criteria and indicators of the region development and establishment of information-analytical base for their calculations. – Definition subjects of management development, their responsibility, authority, motivational incentives.

<p>Conceptualized – the definition of the problem area</p>	<ul style="list-style-type: none"> – Substantiation of the purpose and expediency of application of the mechanism of system management of development processes. – Identification of general problems of regional development processes and ways to overcome them. – Defining the role, place, purpose and components of the system of development management. – Defining the structure of the mechanism, tasks and functions.
<p>Modelling – designing a model of the region's development space and its management mechanism</p>	<ul style="list-style-type: none"> – Construction of a system model of the region's functioning space. Building a model of the mechanism of system management of sustainable development processes. – Optimization of the mechanism model. – Defining criteria for model evaluation. – Checking the mechanism for inertia, adequacy, accuracy, completeness and stability.
<p>Design and engineering of system control mechanism</p>	<ul style="list-style-type: none"> – Determining the structure of the system management mechanism. Decomposition of interaction of mechanism elements. – Aggregation of local mechanisms as part of the system control mechanism. – Determining the conditions of use of mechanisms. – Determination of parametric characteristics of the mechanism of system management of regional development. – Definition of functions and tasks of the mechanism. – Determining the results of the mechanism's effect on the condition. Identification of resources for the implementation of the mechanism.
<p>Introduction of the system control mechanism</p>	<ul style="list-style-type: none"> – Regulatory support. – Institutionalization of the mechanism. – Motivational levers and incentives. – Monitoring the results of the impact on the level of the region development. – Training subjects and members of management.
<p>Reflective</p>	<ul style="list-style-type: none"> – Accounting and control of the results of development processes. – Analysis of the results of the region's activities to ensure development processes. – Adjustment, if necessary, of previously made decisions and development tasks. – Assessment of the balanced development of the region. – Development of measures to further improve the mechanisms of integrated influence – Development of measures for Further Improvement of mechanisms.

Source: systematized by authors according to Elton and Gruber (2014), Pearce (2013).

In order to encourage foreign investment every country in the world aims to use variety of mechanisms and tools that are based on a differentiated approach to the subjects, types, forms and processes of foreign and domestic investment (see Table 2).

Table 2: Mechanisms and tools to stimulate investment activity

Mechanisms	Tools
Financial and credit incentives	<ul style="list-style-type: none"> – interest-free loans – soft loans – investment guarantees
Tax incentives	<ul style="list-style-type: none"> – reduction of the tax rate – tax agreements with other countries – duty-free import of equipment and (or) raw materials
Stimulation of infrastructure provision	<ul style="list-style-type: none"> – providing land for free use or at discounted prices – transport guarantees – subsidies for energy use – freight benefits
Stimulation of specific investment projects	<ul style="list-style-type: none"> – targeted financing of resource and nature protection equipment – targeted funding of projects aimed at training and retraining – assistance in carrying out feasibility studies of projects – targeted funding for research and development
Protectionist measures	<ul style="list-style-type: none"> – differentiated tariffs

Source: systematized by authors according to Lipkova and Bohac (2016), Mraz and Zubro (2016), Elton and Gruber (2014), Pearce (2013).

Understanding the existence of certain problems is extremely important for any state that aims to attract foreign investors to improve its own economy (Mraz and Zubro, 2016). However, one understanding of the problem is not enough to overcome it. A clear state policy in the area of attracting and promoting foreign investment is needed in the context of the attitude to foreign investors and the application of clear, fair and transparent rules and procedures, regardless of the behaviour or whims of a particular official the plan either issues permits for import or export of products, or decides on the granting or revocation of licenses, patents or other permits for investment activities in Ukraine.

6 RESULTS

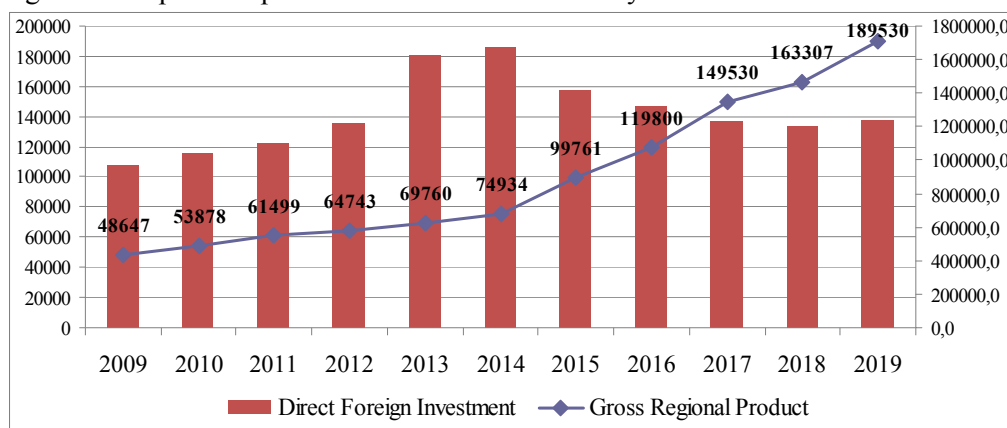
Practical aspects of this work are concerned with study of investment sector in Odessa region. In this regard the developments of the Odessa region are examined below. The comparison of foreign direct investment and GRP in Odessa region for the period of 2009-2020 is shown in table 3 and figure 1. To analyse the dynamics of these indicators we applied the method of statistical observation.

Table 3: Indicators of GRP, FDI, and unemployment dynamics in 2009-2020

	<i>Gross Regional Product</i>		<i>Foreign Direct Investment</i>		<i>Unemployment rate</i>		<i>GDP deflator index</i>	
	million UAH	growth rate (decrease),%	thousand dollars USA	growth rate (decrease),%	%	absolute deviation, percent. points	%	absolute dev., percent. points
2009	48647	...	970152.5	...	6.7	...	13.0	-54,5
2010	53878	10.75	1041987.7	7.40	6.3	-0.4	13.9	6.9
2011	61499	14.14	1107326.6	6.27	6.4	0.1	14.2	2.0
2012	64743	5.27	1220519.4	10.22	6.4	0	7.8	45.1
2013	69760	7.75	1629074.2	33.47	6.1	-0.3	4.3	44.4
2014	74934	7.42	1671661.5	2.61	6.5	0.4	15.9	266.7
2015	99761	33.13	1423290.8	-14.86	6.7	0.2	38.9	144.5
2016	119800	20.09	1320345.6	-7.23	6.5	-0.2	17.3	55.4
2017	149530	24.82	1228752.8	-6.94	6.8	0.3	22.1	27.4
2018	163307	9.21	1202594.7	-2.13	7.1	0.3	15.4	30.3
2019	189530	16.06	1237202.8	2.88	6.4	-0.7	8.1	47.2
2020	177640	-6.3	1136407.3	-8.1	8.2	-1.8

Source: calculated by authors on the base of Ukrstat (2021).

Figure 1: Graphical representation of GRP and FDI dynamics in 2009-2019

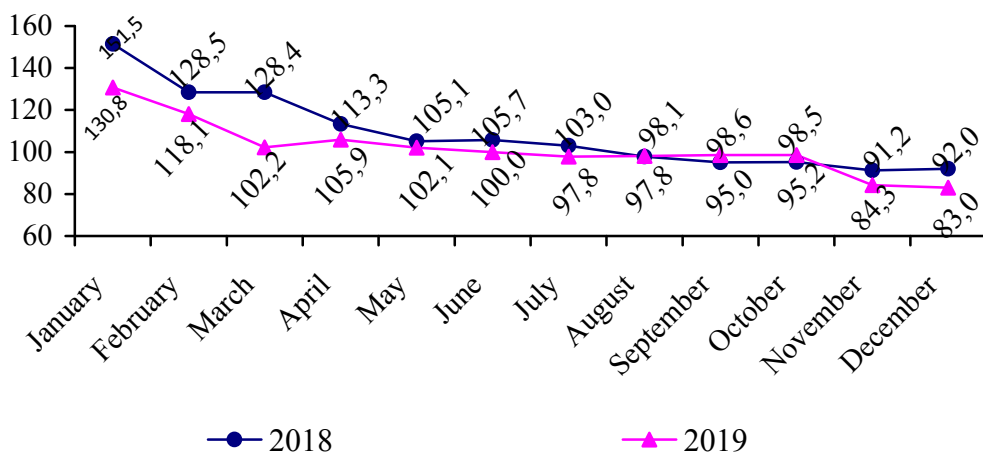


Source: processed by authors.

As can be seen from Table 3 and Figure 1, the increase in FDI in the Odessa region was accompanied gradually from 2009 to 2014, followed by a sharp decline until 2018 and positive dynamics in 2019, which is largely due to the military conflict and the annexation of the Autonomous Republic of Crimea. However, it should be noted that the fall in FDI since 2014 did not affect the growth of GRP, there was a positive upward trend.

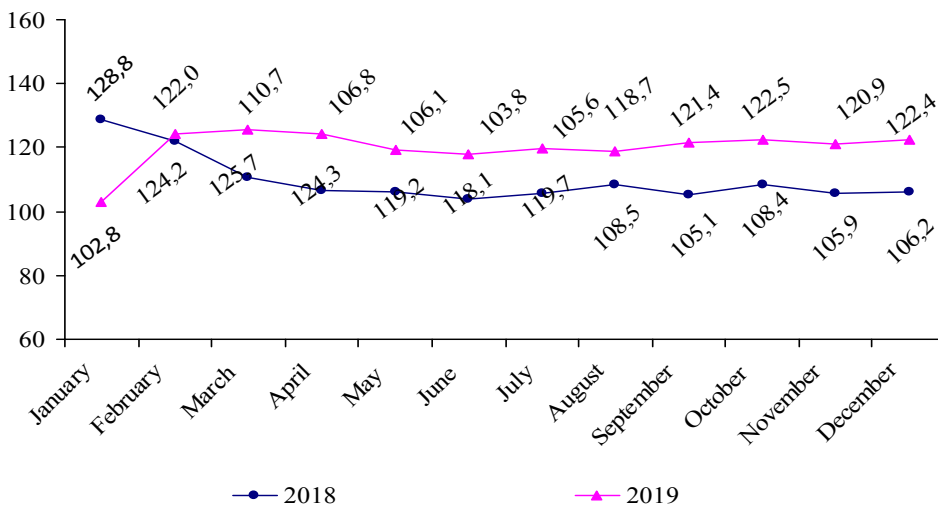
Let's carry out statistical research of foreign trade in the goods of Odessa region in 2019. In 2019 exports of goods amounted 1384.2 million USD , imports – 1904.4 million USD. Compared with 2018 exports decreased by 17.0% (by 284.0 million USD), imports increased by 22.4% (by 348.3 million USD). The negative balance amounted 520.2 million USD (in 2018 the positive balance amounted 112.2 million USD). The export coverage ratio of imports was 0.73 (in 2018 – 1.07). Foreign trade operations were conducted with partners from 172 countries (see Figure 2 and 3).

Figure 2: Exports of goods growth rate in 2018-2019, %



Source: processed by authors according to Ukrstat, 2021.

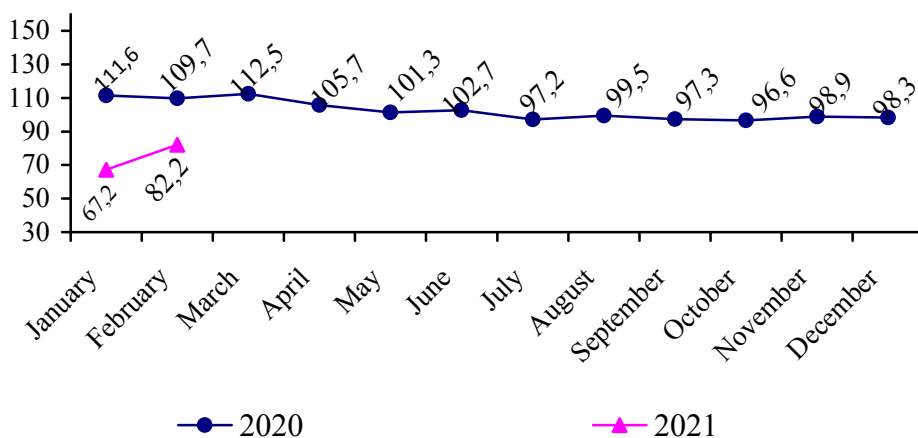
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Source: processed by authors according to Ukrstat, 2021.

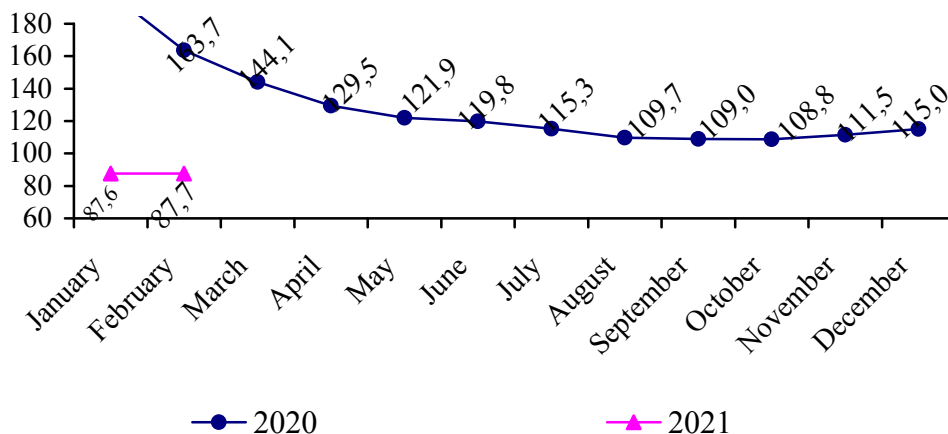
Let's conduct the statistical study of foreign trade in goods of Odessa region in January-February 2021. In January – February 2021, exports of goods amounted 182.4 million USD, imports – 347.1 million USD. Compared to January-February 2020, exports decreased by 17.8% (by 39.4 million USD), imports by.3% (on 48.6 million USD). The negative balance amounted 164.7 million USD (in January – February 2020 the negative balance was 173.9 million USD). The export-import coverage ratio was 0.53 (0.56 in January – February 2020). Foreign trade operations were conducted with partners from 130 countries (Figure 4-5).

Figure 4: Exports of goods growth rate in 2020-2021, %



Source: formed by authors according to Ukrstat, 2021.

Figure 5: Imports of goods growth rate in 2020-2021, %



Source: formed by authors according to Ukrstat, 2021.

Scientists draw attention to the importance of economic development in the Odessa region. Thus, the paper identifies the current state and strategic guidelines for investment development of Odessa region on the basis of modern approaches to justify innovation and investment development policy.

Peculiarities of changes dynamics in the coefficient of import export coverage for the general nomenclature of goods and products of industries are revealed (Navratil, 2016). The directions of investment activation and innovative development of the region's economy for optimization of its industrial production, restructuring of its economy and foreign trade in industrial goods are offered (Pearce, 2013).

The increase in the region's investment attractiveness rating is due to the long-term growth of certain indicators of socio-economic development of the region, the actions of local authorities to improve the investment climate and the implementation of "maximum assistance" for business, modernization of infrastructure and transport (Stanickova, 2012). Thus, the trends in the development of socio-economic indicators of the region are proportional to the attraction of investment (if the level of development of the region is low, then the level of investment is also reduced).

7 CONCLUSIONS

A comprehensive study of the investment attractiveness of the districts of Odessa region and its investment potential made it possible to develop a number of proposals for the use of investment potential and development of the Odessa region.

It is advisable to intensify work "on the ground", namely:

- more dynamically develop the infrastructural potential of districts, especially transport and institutional infrastructure of services for business, creating a favourable "financial climate" for investors (it is possible to provide more significant benefits when investing in district development infrastructure);
- to intensify the systematic development of tourist destinations (main points of tourist routes and local attractions), while developing the infrastructure of tourism (its advertising);
- to increase the level of processing of investment projects proposed by investors (with personification of responsibility), clearly defining the "growth points" of the district with a detailed development of the project business plan, assessing not only the desired amount of investment but also expected results, return, efficiency, payback periods;
- if possible, to share investment plans for investments in the renewal of fixed assets, in the creation of new industries and in the development

of infrastructure, which will allow comprehensive monitoring of the development of the district.

To attract investors to the “problem points” of the region, you can use the mechanism of guarantees of return on investment by the authorities. Second, the implementation of the accession strategy for the “Leaders” districts supports the development of lagging districts of the region. This strategy can be carried out in the following forms, which are implemented both separately and in combination with each other:

- targeted financial, investment and “management” assistance to the leading districts that form the basis of the Odessa “triangle of forces”;
- creation of district clusters and implementation of joint programs (investment projects) with “Growing” and “In need of attention” districts on the principles of co-financing (a large share for “sustainable” districts) and unification of managerial competencies to accelerate and support their development in order to form district “growth points”. It should be borne in mind that within the region the most attractive areas of investment programs are agriculture, production and services (transport, tourism and trade);
- implementation of joint projects in areas with equal development to combine opportunities in order to increase the overall potential (synergy effect) in the competition for investment.

During the implementation of these forms of the strategy of “accession” at the preparatory stage it is necessary to clearly define the capabilities and resources of each district, after which it is possible to administratively establish new links.

The strategy of economic and social development of Odessa region until 2020 stipulates that preference is given to the modernization scenario of the region, which is based on the effective use of available resource potential in the region on the principles of intensive type of economic growth.

This scenario involves increasing the competitiveness of the region’s economy by combining the efforts of public administration, business and communities. The development scenario chosen by the region envisages the transformation of Odessa region into a “technological tug” for other regions adjacent to Odessa region; as such a development model should catalyze the creation of high-tech clusters, which in turn will tend to expand areas of economic activity effect. It is advisable to ensure that underdeveloped regions are affected by programs in several areas.

It is important to emphasize that the analyzed examples illustrate that, despite different approaches to the formation and implementation of investment policy, fundamental institutional components are important for improving the investment

climate, such as an effective system of property rights protection and an effective justice system.

The results presented in the work confirm the effectiveness of using the model to predict the studied time series of investment flows and results from investment activities. In development of the work, it is planned to evaluate the effectiveness of the extrapolation model for the tasks of forecasting time series from other subject areas.

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