

**Mulyk Tetiana**

*PhD in Economics, Associate Professor,  
Head of the Analysis and Statistics Department,  
Vinnytsia National Agrarian University, Vinnytsia.*

**Mulyk Yaroslavna**

*PhD in Economics, Associate Professor,  
of the Audit and State Control Department,  
Vinnytsia National Agrarian University, Vinnytsia.*

## **ANALYSIS OF THE STATE OF FIXED ASSETS AT ENTERPRISES AND METHODOLOGICAL APPROACHES TO ITS IMPLEMENTATION: THE EXPERIENCE OF UKRAINE**

**Мулык Татьяна Алексеевна**

*кандидат экономических наук, доцент,  
заведующая кафедрой анализа и статистики,  
Винницкий национальный аграрный университет, Винница.*

**Мулык Ярославна Игоревна**

*кандидат экономических наук, доцент  
доцент кафедры аудита и государственного контроля,  
Винницкий национальный аграрный университет, Винница.*

## **АНАЛИЗ ОСНОВНЫХ СРЕДСТВ НА ПРЕДПРИЯТИЯХ И МЕТОДИЧЕСКИЕ ПОДХОДЫ К ЕГО ПРОВЕДЕНИЮ: ОПЫТ УКРАИНЫ**

**Summary.** The analysis of fixed assets at the enterprises of Ukraine is carried out. The dynamics of changes in the initial value, residual value and the degree of depreciation of fixed assets of Ukrainian enterprises in 2000-2018 is estimated. The value of fixed assets of Ukraine was assessed by type of economic activity (NACE-2010) in 2014-2018. The dynamics of changes in the value of fixed assets in the field of agriculture in 2013-2018 is estimated. It is determined, that the main means of production of enterprises are not used efficiently. It is established, that further increase in the efficiency of their use can be achieved in an intensive way, namely: by replacing some outdated technologies with new, computerized ones, that will accelerate production and increase productivity; reconstruction of those production sites and equipment, that are "bottlenecks", that is restrain the possibility of increasing production; organization of training and retraining of engineers and key production workers, who will be responsible for the implementation of new advanced equipment and work on it. The role of analysis in the management of fixed assets is determined. Emphasis is placed on the fact, that the method of analysis of fixed assets should take into account a number of fundamental positions. The tasks, stages, methods, information sources of the analysis of fixed assets are covered. The analysis of methodical approaches of authors to the decision of problems of the economic analysis of the fixed assets is carried out. The views of scientists on the areas of economic analysis of fixed assets are systematized. The views of scientists on the application of various indicators to analyze the effectiveness of fixed assets are summarized. The author's approach, which provides the realization of the analysis in the context of such areas as analysis of the dynamics of the active part of fixed assets of enterprises and development of proposals for their improvement, analysis of the intensity of the movement of the active part of fixed assets and development of proposals for the speed of their renewal, analysis of technical conditions of the active part of fixed assets and selection of proposals to improve their quality is offered.

**Аннотация.** Осуществлен анализ основных средств на предприятиях Украины. Оценены динамику изменений первоначальной стоимости, остаточной стоимости и степени износа основных средств предприятий Украины в 2000-2018 годах. Проведена оценка стоимости основных средств Украины по видам экономической деятельности (КВЭД-2010) в 2014-2018 годах. Оценены динамика изменений стоимости основных средств в отрасли сельского хозяйства в 2013-2018 годах. Определено, что основные производственные средства предприятий используются не эффективно. Установлено, что дальнейшего повышения эффективности их использования можно достичь интенсивным путем, а именно: проведением замены части устаревших технологий на новые, компьютеризированные технологии, которые будут способствовать ускорению производства и повышению производительности труда; проведением реконструкции тех производственных участков и оборудования, которые являются «узкими местами», то есть сдерживают возможности увеличения объемов производства; организацией обучения и переподготовки инженерно-технических работников и основных производственных рабочих, будут отвечать за внедрение нового прогрессивного оборудования и работать на нем. Определена роль анализа в управлении основными средствами. Акцентировано внимание, что методика анализа основных средств должна учесть ряд принципиальных положений. Освещены, задачи, этапы, методы, информационные источники анализа основных средств. Проведен анализ методических подходов авторов к решению проблем экономического анализа основных. Систематизированы взгляды ученых по направлениям проведения экономического анализа основных средств. Обобщены взгляды ученых по применению

различных показателей для анализа эффективности использования основных средств. Предложено авторский подход, который предполагает осуществление анализа в разрезе таких направлений, как анализ динамики активной части основных средств предприятий и выработка предложений по их улучшению, анализ интенсивности движения активной части основных средств и разработка предложений по скорости их обновления, анализ технического состояния активной части основных средств и выделение предложения по повышению их качества.

**Анотація.** Здійснено аналіз основних засобів на підприємствах України. Оцінено динаміку змін первісної вартості, залишкової вартості та ступеню зносу основних засобів підприємств України у 2000–2018 роках. Проведено оцінку вартості основних засобів України за видами економічної діяльності (КВЕД-2010) у 2014–2018 роках. Оцінено динаміку змін вартості основних засобів в галузі сільського господарства у 2013–2018 роках. Визначено, що основні виробничі засоби підприємств використовуються не ефективно. Встановлено, що подальшого підвищення ефективності їх використання можливо досягти інтенсивним шляхом, а саме: проведенням заміни частини застарілих технологій на нові, комп'ютеризовані технології, які будуть сприяти прискоренню виробництва та підвищенню продуктивності праці; проведенням реконструкції тих виробничих дільниць і обладнання, які є «вузькими місцями», тобто стримують можливості збільшення обсягів виробництва; організацією навчання та перепідготовки інженерно-технічних працівників та основних виробничих робітників, які будуть відповідати за впровадження нового прогресивного обладнання та працювати на ньому. Визначено роль аналізу в управлінні основними засобами. Акцентовано увагу, що методика аналізу основних засобів повинна врахувати ряд принципових положень. Висвітлено, завдання, етапи, методи, інформаційні джерела аналізу основних засобів. Проведено аналіз методичних підходів авторів до вирішення проблем економічного аналізу основних засобів. Систематизовано погляди вчених щодо напрямів проведення економічного аналізу основних засобів. Узагальнено погляди вчених щодо застосування різних показників для аналізу ефективності використання основних засобів. Запропоновано авторський підхід, який передбачає здійснення аналізу в розрізі таких напрямів, як аналіз динаміки активної частини основних засобів підприємств і вироблення пропозицій щодо їх поліпшення, аналіз інтенсивності руху активної частини основних засобів та розробка пропозицій щодо швидкості їх оновлення, аналіз технічного стану активної частини основних засобів та виділення пропозиції щодо підвищення їх якості.

*Key words: analysis of fixed assets, initial cost, residual value, degree of depreciation, methods of analysis, stages of fixed assets analysis.*

*Ключевые слова: анализ основных средств, первоначальная стоимость, остаточная стоимость, степень износа, методы анализа, этапы анализа основных средств.*

*Ключові слова: аналіз основних засобів, первісна вартість, залишкова вартість, ступінь зносу, методи аналізу, етапи аналізу основних засобів.*

**Formulation of the problem.** The basis for the development of any socio-economic system is a stable, stable over time, its reliable operation in the long run. One of the basic elements, without which it is impossible to ensure the activities of enterprises, are fixed assets, whose structure and parameters of the cycle are the driving force in the formation of the final product. The organization of their effective use can become both an element of success and a factor of unjustified growth of the cost of products and services provided. Considering the negative impact of environmental factors due to the crisis in the country and the destructive policy of modernization of enterprises, in the environment of fixed assets production decreases, the quality of products deteriorates, as a result - there is a decrease in profitability. That is why the method of analysis of fixed assets in the context of a systematic and expert vision of problem situations needs to be revised, which requires a reliable assessment of their condition and reserves of financial support for their renewal in conditions of limited financial resources. Thus, the inability to provide the fundamental conditions for the effective operation of the enterprise negatively affects the production potential of its development. Theoretical and applied aspects of evaluation and financing of fixed assets renewal need further development, which led to

the choice of the topic of the article.

**Analysis of recent research and publications.** Questions of methodological approaches to the problems of analysis of fixed assets were studied by economists: F.F. Butynets, T.A. Burova, I.Yu. Epifanova, T.G. Marenych, Ts. V. Mayakovska, O.M. Sled, S. P. Sudarkina, Yu. V. Tarasyuk, N.V. Shvets, V.K. Savchuk, I.D. Lazaryshyna, V.V. Sopko, C.I. Shkaraban, G.V. Savitska, P.Ya. Popovych, B.F. Usach, T.O. Mulyk, O.F. Tomchuk and others. However, their research results on improving the accounting and analytical management of fixed assets are insufficient and therefore need improvement and rectification.

**Formulation of the goals of the article.** To analyze the state of fixed assets at enterprises, to identify the problematic aspects and areas of improvement of fixed assets management and to highlight methodological approaches to its implementation.

**Presentation of the main research material.** The efficiency of the economy is largely determined by the state of its fixed assets, which characterize the production capacity of industries, determine the pace and scale of its development. In modern conditions of activity of the enterprises research of problems of the analysis of reproduction of fixed assets, efficiency of

their use in the conditions of realization of investment projects, and also definition of directions of activation of investment activity becomes actual. These problems are solved by a comprehensive analysis of the reproduction of fixed assets [1].

The efficiency of the use of fixed assets is one of the most important research links in enterprises. The reproduction of fixed assets is considered as a process of continuous renewal [2]. Today in Ukraine there is an unfavorable situation regarding the security and efficiency of use of fixed assets. First of all, it is due to the high degree of depreciation of assets, which causes an urgent need to modernize the existing fleet of means of production (Table 1).

Analyzing fixed assets for 2000-2018, it should be

noted, that the size of the initial value increased from 2000 to 2014, but this positive trend changed slightly during 2015-2018, where there is a significant decrease in the initial value due to the occupied territories. Despite this, in general, the initial cost increased during this study period (2000-2018) by UAH 8781178 million or almost in 12 times.

The residual value also increased by UAH 3317046 million. The rate of depreciation increased until 2014 and in this period the maximum value was 83.5%, then since 2015 it has decreased slightly due to the occupation of territories. However, the general deviation indicates an increase in depreciation from 2000 to 2018 by 16.9%.

Table 1

**The cost of fixed assets in Ukraine in 2000-2018**

Years	In actual prices at the end of the year, UAH mln		Degree of depreciation, in%
	initial (revalued) value	residual value	
2000	828822	466448	43,7
2001	915477	503278	45,0
2002	964814	512235	47,2
2003	1026163	538837	48,0
2004	1141069	587453	49,3
2005	1276201	661565	49,0
2006	1568890	774503	51,5
2007	2047364	993346	52,6
2008	3149627	1251178	61,2
2009	3903714	1597416	60,0
2010	6648861	1731296	74,9
2011	7396952	1780059	75,9
2012	9148017	2135987	76,7
2013	10401324	2356962	77,3
2014	13752117	2274922	83,5
2015	7641357	3047839	60,1
2016	8177408	3428908	58,1
2017	7733905	3475242	55,1
2018	9610000	3783494	60,6
Deviation 2018/2000, including			
absolute, +/-	8781178	3317046	16,9
relative, %	1059,5	711,1	38,7

Source: data from the State Statistics Service [3]

The dynamics of changes in the initial and residual value of fixed assets and their degree of depreciation

are shown in Figures 1-3.

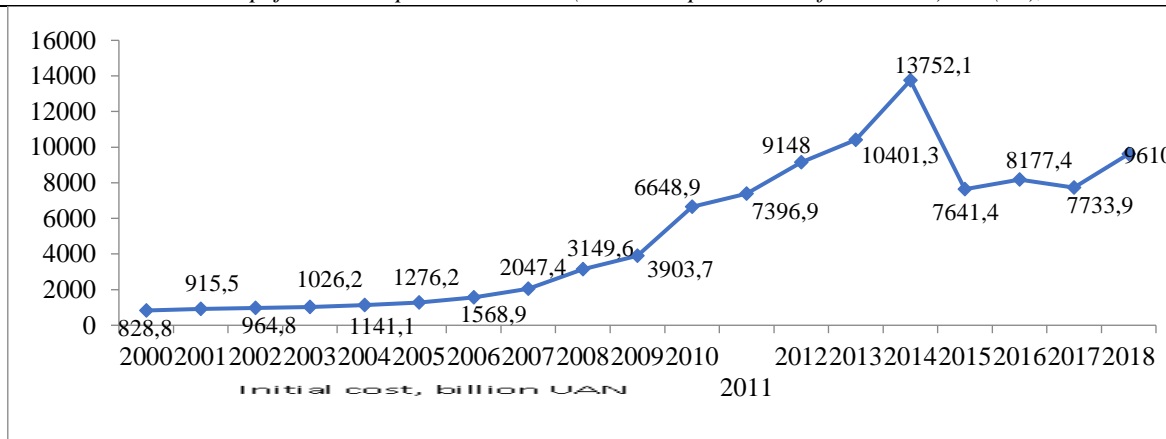


Fig. 1. Dynamics of changes in the initial cost of fixed assets of enterprises of Ukraine in 2000-2018  
Source: data from the State Statistics Service [3].

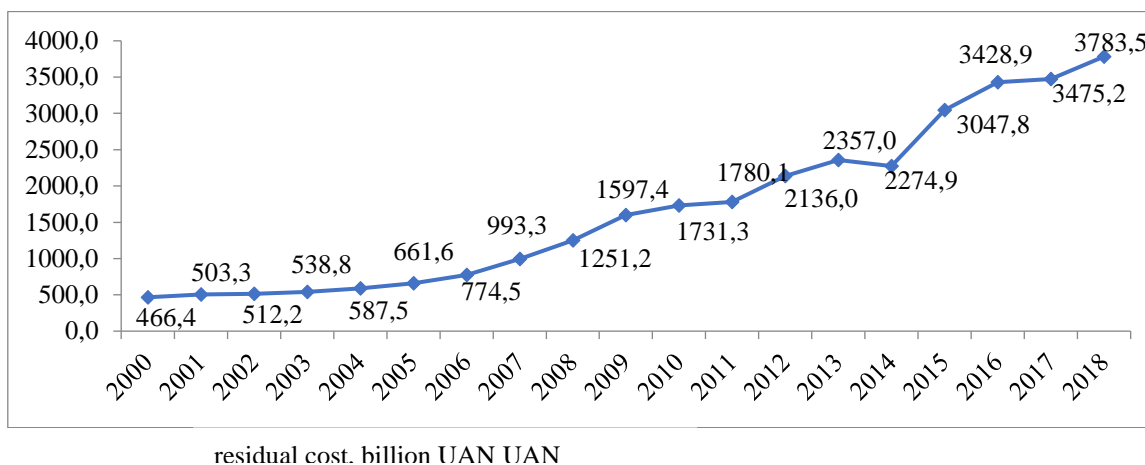


Fig. 2 Dynamics of changes in the residual value of fixed assets of Ukrainian enterprises in 2000-2018  
Source: data from the State Statistics Service [3].

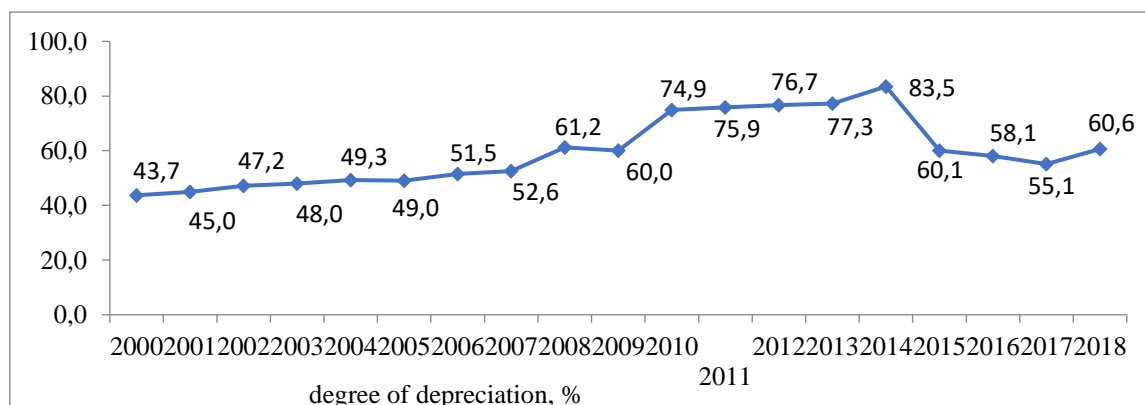


Fig. 3 Dynamics of changes in the degree of depreciation of fixed assets of Ukrainian enterprises in 2000-2018  
Source: data from the State Statistics Service [3].

However, the real situation is such, that due to inflation and the fall of the national currency, the cost of new equipment is much higher than the initial cost of similar equipment.

Fixed assets play a crucial role in the production activities of enterprises. The supply of enterprises with fixed assets is an important factor that determines the quality, completeness and timeliness of work,

production volume and financial condition of the enterprise as a whole. Therefore, the study of the state of the reproduction process in enterprises becomes actual [4].

Analysis of the value of fixed assets of Ukraine by type of economic activity in 2014-2018 [3], are shown in table 2, where the total value of fixed assets in Ukraine decreased by UAH 4142117 million.

Table 2

**Cost of fixed assets of Ukraine by types of economic activity (NACE-2010) in 2014-2018, (UAH million)**

Branches	2014	2015	2016	2017	2018	Deviation (+, -)
Total	13752117	7641357	8177408	7733905	9610000	-4142117
Agriculture, forestry and fisheries	171392	210169	270467	341622	407146	235754
Agriculture, hunting and related services	167283	205575	264859	335303	399526	232243
Forestry and logging	3294	3793	4513	5308	6295	3001
Fisheries	815	801	1095	1011	1325	510
Industry	1937821	3842517	3072954	2454483	3271669	1333848
Mining and quarrying	362722	379055	410018	422959	411806	49084
Processing industry	756277	1656971	1792101	1168230	1257573	501296
Supply of electricity, gas, steam and air conditioning	758886	1736058	796558	781271	1423237	664351
Water supply; sewerage, waste management	59936	70433	74277	82023	179053	119117
Construction	64352	62090	72810	78704	91715	27363
Wholesale and retail trade; repair of motor vehicles and motorcycles	125507	135378	175422	195377	215625	90118
Transport, warehousing, postal and courier activities	9752902	1418312	1562079	1280369	1729587	-8023315
Temporary accommodation and catering	27276	27985	29772	28786	30964	3688
Information and telecommunications	69440	76546	94243	111757	127085	57645
Financial and insurance activities	49718	51238	70977	66275	68695	18977
Real estate transactions	533328	666855	804040	928615	1064119	530791
Professional, scientific and technical activities	29626	31347	38671	35319	35681	6055
Activities in the field of administrative and ancillary services	333493	407506	1173933	1376683	1487471	1153978
Public administration and defense; compulsory social insurance	389	581	615	264	307	-82
Education	3117	3117	3596	3785	4102	985
Health care and social assistance	11124	12912	21245	17359	27717	16593
Arts, sports, entertainment and recreation	23038	23581	20901	22306	22466	-572
Provision of other types of services	1822	2110	2775	2652	3201	1379

Source: data from the State Statistics Service [3]

The decrease in the value of fixed assets is observed in such areas as: temporary accommodation and catering (-8023315 million UAH), public administration and defense; compulsory social insurance (-82 million UAH), arts, sports, entertainment and recreation (-572 million UAH).

Other industries have a tendency to increase the value of fixed assets.

The dynamics of changes in the value of fixed assets in the industry – Agriculture, forestry and fisheries, for the period from 2013 to 2018 are presented in Fig. 4.

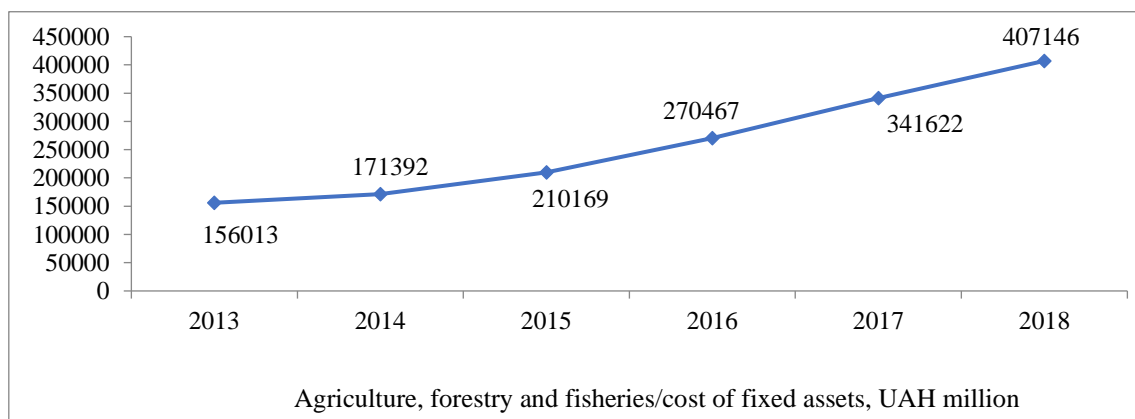


Fig. 4. Dynamics of changes in the value of fixed assets in the field of agriculture in 2013-2018

Source: data from the State Statistics Service [3]

Due to significant depreciation of fixed assets, the technical and technological backwardness of

enterprises is increasing. The reproduction of fixed assets in enterprises can take place through gross capital investment, which will be aimed at the creation, purchase, restoration and improvement of fixed assets [5].

Ways to improve the use of fixed assets can be represented in different ways [6]. One of the options for the system of paths and the corresponding reserves to improve the efficiency of use of fixed assets is the following classification:

1) reserves of improving the extensive use of fixed assets or ways to increase the operating time of equipment: acceleration the commissioning; reduction and elimination of intra-shift downtime due to modern and high-quality providing jobs with raw materials, energy, fuel, tools, equipment, working documentation, proper repair maintenance, etc; increase in maintenance periods and reduction of repair time; planning and ensuring a more complete loading of equipment; - increasing the coefficient of variability; improving the organization of production and labor [7];

2) reserves of improving the intensive use of equipment or increase the degree of its loading per unit time: the establishment of the optimal mode of operation of the equipment; increasing labor productivity in the workplace due to the use of technological equipment and special tools, improving technological processes (increasing the level of manufacturability); increasing the level of mechanization and automation of production, including ancillary and service processes; improving the quality of preparation of raw materials for the production process; professional development of workers and their development of advanced methods of work; increasing the level of specialization and concentration in the formation of technological processes; modernization of equipment [1];

3) improving the structure of fixed assets: increasing the share of the active part of fixed assets; reducing the share of uninstalled equipment; purchase of high-performance machines and equipment, their timely updating; ensuring proportionality between shops and sites; reduction of unused and redundant fixed assets due to their realization or lease [1].

In the fixed asset management system, analysis plays an important role.

Analysis - the broadest concept, which is the basis of any knowledge of the phenomena of nature and society, and methods of analysis - the basis of the study of content, essence, structure, change and development of economic, political, social, natural and other phenomena and processes. It is a part of any scientific and practical search to explain and solve existing inconsistencies and problems [8].

In the process of economic analysis of fixed assets, indicators, that characterize the provision of enterprises in terms of increasing the competitiveness of the latter, are calculated. This allows to form a basis for making informed decisions and, accordingly, reduces the

likelihood of making the wrong decisions and helps to choose the most optimal option to achieve the planned goal [9].

Without diminishing the role of the developed of theoretical positions on economic analysis of fixed assets, it should be noted the insufficient level of their study from the standpoint of modern management needs, in particular, regarding the analysis of recovery of the part of active assets of construction companies in the process of their operation in terms of analysis of the dynamics of fixed assets, including their active part, traffic intensity and technical condition of fixed assets for more complete and effective use. This is due to the fact, that the restoration of the active part of the rolling stock of fixed assets is essential to ensure the stable operation of enterprises of the construction industry, as it was noted in the previous two sections of the dissertation [9].

The method of analysis of fixed assets should take into account a number of principles:

- the functional usefulness of fixed assets is maintained for several years, so the costs of their purchase and operation are distributed over time;

- the moment of physical replacement of fixed assets does not coincide with the moment of their cost replacement, as a result of which there may be losses and damages, that reduce the financial results of the enterprise;

- the efficiency of the use of fixed assets is estimated differently, depending on their type, belonging, nature of participation in the production process, as well as the purpose;

- fixed assets serve not only the production sphere of the enterprise, but also social, cultural, etc., therefore, the effectiveness of their use is determined not only by economic but also social, environmental and other factors [10].

The objectives of the analysis of fixed assets are:

- assessment of the provision of the enterprise with fixed assets;

- determining the composition and structure of fixed assets, the degree of their renewal and disposal;

- analysis of the technical condition of fixed assets;

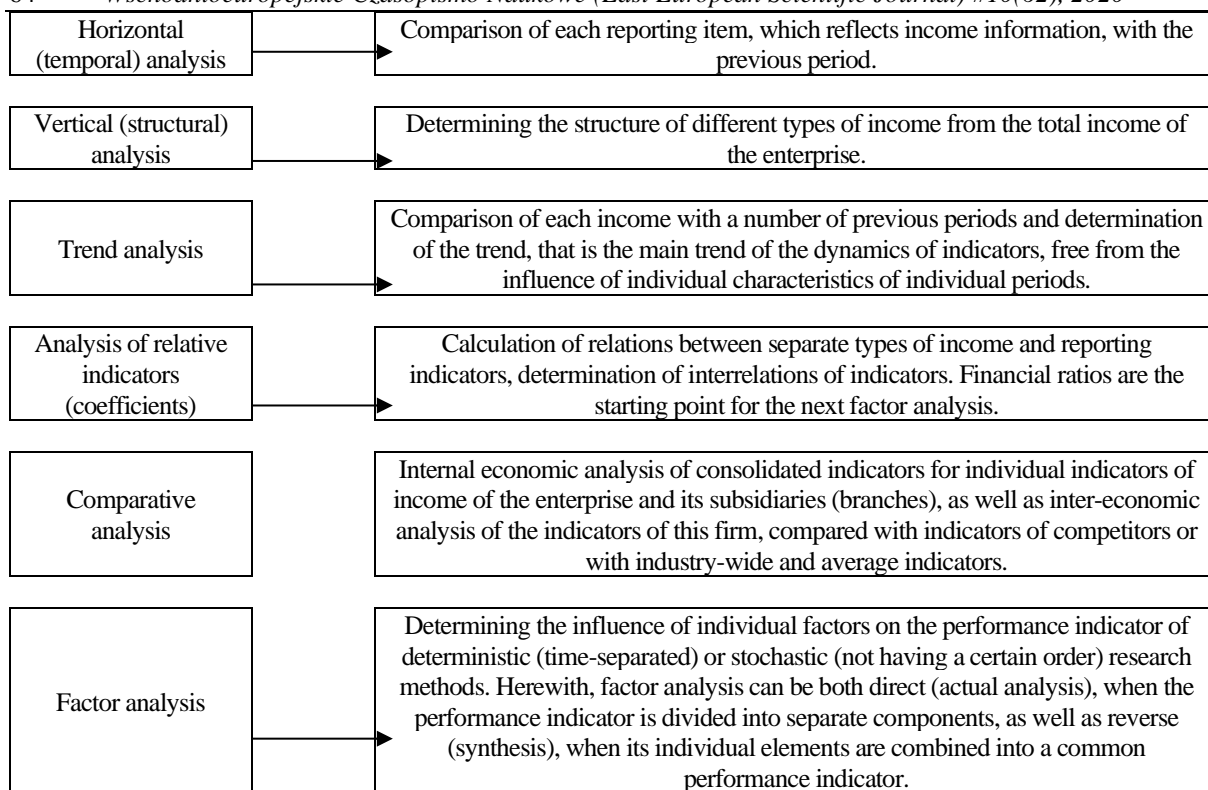
- determining the level of return on assets, its dynamics, studying the impact of changes in the size of fixed assets and return on assets on the volume of work;

- identification of reserves to increase the return of assets, improving the use of equipment;

- identification of ways to reduce the cost of maintenance and operation of machines and mechanisms;

- assessment of identified reserves and development of measures to improve the use of the active part of fixed assets [10].

A set of special systems and methods of economic analysis is used to solve problems in the process of analytical work. We can name six basic methods of analysis of fixed assets (Fig. 5).



Source: [11]

Fig. 5. Basic techniques of analysis of fixed assets.

The need for analysis of the restoration of fixed assets in the process of their operation is due to the importance of ensuring the production process of enterprises and the corresponding impact on the financial results of their activities [9].

In support of this, some scientists [12, 13] say, that an important condition for uninterrupted normal operation of enterprises is a sufficient supply them with fixed assets. The study of issues related to the development of scientific thought shows, that the research of scientists do not fully reveal the specifics of the analysis of fixed assets of enterprises, taking into account their industry features.

At the same time, there is no single approach to the solving of this problem, as it is rightly noted by E.V.

Mnykh, who points out, that studies, conducted by scientists, suggest that there is no systematic approach to study the efficiency of fixed assets and questions of their rational structure. [14]. V.V. Kovalyova and O.N. Volkova have a similar position, which confirms, that it is a systematic approach to the analysis of fixed assets provides a more objective basis for making management decisions [15].

The author carried out systematization the views of scientists on the economic analysis of fixed assets with the selection of such areas as: analysis of the state and structure of fixed assets, technical condition of fixed assets and the efficiency of their use, which are given in table. 3.

Table 3

Systematization of views on the areas of economic analysis of fixed assets

Author	Areas of analysis of fixed assets						
	Composition and structure of fixed assets	Movement of fixed assets	Technical condition of fixed assets	Update level in fixed assets	The degree of depreciation of fixed assets	Efficiency of use of fixed assets	Efficiency of using the active part of fixed assets
L.E. Basovskiy [16]	+	+				+	+
T.B. Berdnikova [17]	+	+	+			+	
T.O. Mulyk [10]	+	+	+		+	+	
N.M. Bondar [18]	+		+			+	
O.A. Zorina [19]	+		+			+	
V.V. Kovalev [20]	+	+				+	
E.P. Kozhanova, I.P. Otenko [21]	+		+			+	
G.V. Savitska [22]	+		+			+	

N.I. Samburska [23]	+	+	+			+	
V.A. Sidun [24]	+				+	+	+

Source: generalized by the author on the basis of literature sources [10, 16-24]

In this case, based on the generalization of the views of researchers, the author found that each of them offers a different list of indicators for the analysis of

fixed assets within the areas, which are listed in table. 4.

Table 4

**Generalization of views of scientists on the application of various indicators to analyze the effectiveness of the use of fixed assets**

Author	Return on fixed assets	Capital intensity of fixed assets	Profitability of fixed assets	Return on investment of fixed assets	Return on assets of the active part of fixed assets	Coefficient of extensive use of fixed assets	Coefficient of intensive use of fixed assets	An integrated indicator of the use of fixed assets
L.E. Basovskiy [16]	+	+	+		+	+	+	+
T.B. Berdnikov [17]	+	+	+					
T.O. Mulyk [10]	+	+	+		+		+	
N.M. Bondar [18]	+	+	+			+	+	+
O.A. Zorina [19]	+	+	+					
V.V. Kovalev [20]								
E.P. Kozhanova,	+	+	+			+	+	+
G.V. Savitskaya [22]	+	+	+					
N.I. Samburskaya [23]								
V.A. Sidun [24]								

Source: generalized by the author on the basis of literature sources [10, 16-24]

Considering the specifics of the object of study, namely the process of operation of fixed assets, the increase of efficiency of which is directly depended on the availability and use of the active part of fixed assets, which is represented by machinery and equipment, the author proposes to conduct an economic analysis of the restoration of the active part of fixed assets during their operation within such selected areas as: analysis of the dynamics of the active part of fixed assets and making proposals for their improvement; analysis of the intensity of movement of the active part of fixed assets and development of proposals for the speed of their renewal; analysis of the technical condition of the active part of fixed assets and providing proposals for improving their quality, as well as analysis of the operational efficiency of fixed assets.

Information support is an integral part of the subsystem of the organization of economic analysis of

fixed assets, determining, to some extent, the quality implementation of the analytical function in the management system [25].

The information base of the analysis is: financial reporting: Balance sheet; Statement of financial results (total income); Notes to the financial statements; statistical reporting: Report on the availability and movement of fixed assets, depreciation (depreciation) (f. 11-OZ), Report on the main economic indicators of the work of agricultural enterprises (f. 50 sg); primary and consolidated documents on the accounting of fixed assets; passports of certain types of equipment and other internal production documents[10].

In our previous studies, we associated the information support of the analysis of fixed assets with investments, that can be invested in fixed assets (Table 5.6).



**Information Support of the Analysis of Fixed Assets at the Stage of Planning Investments  
in Fixed Assets**

Tasks of analysis	Information support
Analysis of financial results of operating activities	General ledger Statement of financial performance (Statement of comprehensive income) (form №2) Notes to the annual financial statements
Analysis of the level of operation of fixed assets	General ledger Balance sheet (Statement of financial position) (form №1) Notes to the annual financial statements (form №5)
Analysis of the need for real investment in fixed assets	Expert assessments
Analysis of the competitive environment	Media information, INTERNET Expert assessments Data from statistical yearbooks
Analysis of investment resources (investment sources)	Balance sheet (Statement of financial position) (form №1) Media information, INTERNET Expert assessments
Analysis of investment potential	General ledger Balance sheet (Statement of financial position) (form №1) Statement of financial results (Statement of comprehensive income) (form №2) Notes to the annual financial statements (form №5)
Analysis of investment attractiveness	General ledger Balance sheet (Statement of financial position) (form №1) Statement of financial results (Statement of comprehensive income) (form №2)
Analysis of investment activity	Balance sheet (Statement of financial position) (form №1) Notes to the annual financial statements (form №5)
Evaluation of the effectiveness of investments in fixed assets according to the criteria and methods of evaluation	Balance sheet (Statement of financial position) (form №1) Statement of financial results (Statement of comprehensive income) (form №2) Cash flow statement (form №3) Notes to the annual financial statements (form №5)
Analysis of the dynamics of the value of fixed assets	General ledger Balance sheet (Statement of financial position) (form №1) Notes to the annual financial statements (form №5)

Source: [25]

At the stage of investment in fixed assets it is necessary to investigate the timeliness and completeness of cash flows, that serve the investment process in terms of investment sources, to establish

their monitoring, if the process of financing of real investment is long, to assess the timeliness of posting of fixed assets as the objects of real investment (Table 6).

Table 6

**Information support of the analysis of fixed assets at the stage of realization of investments in fixed assets**

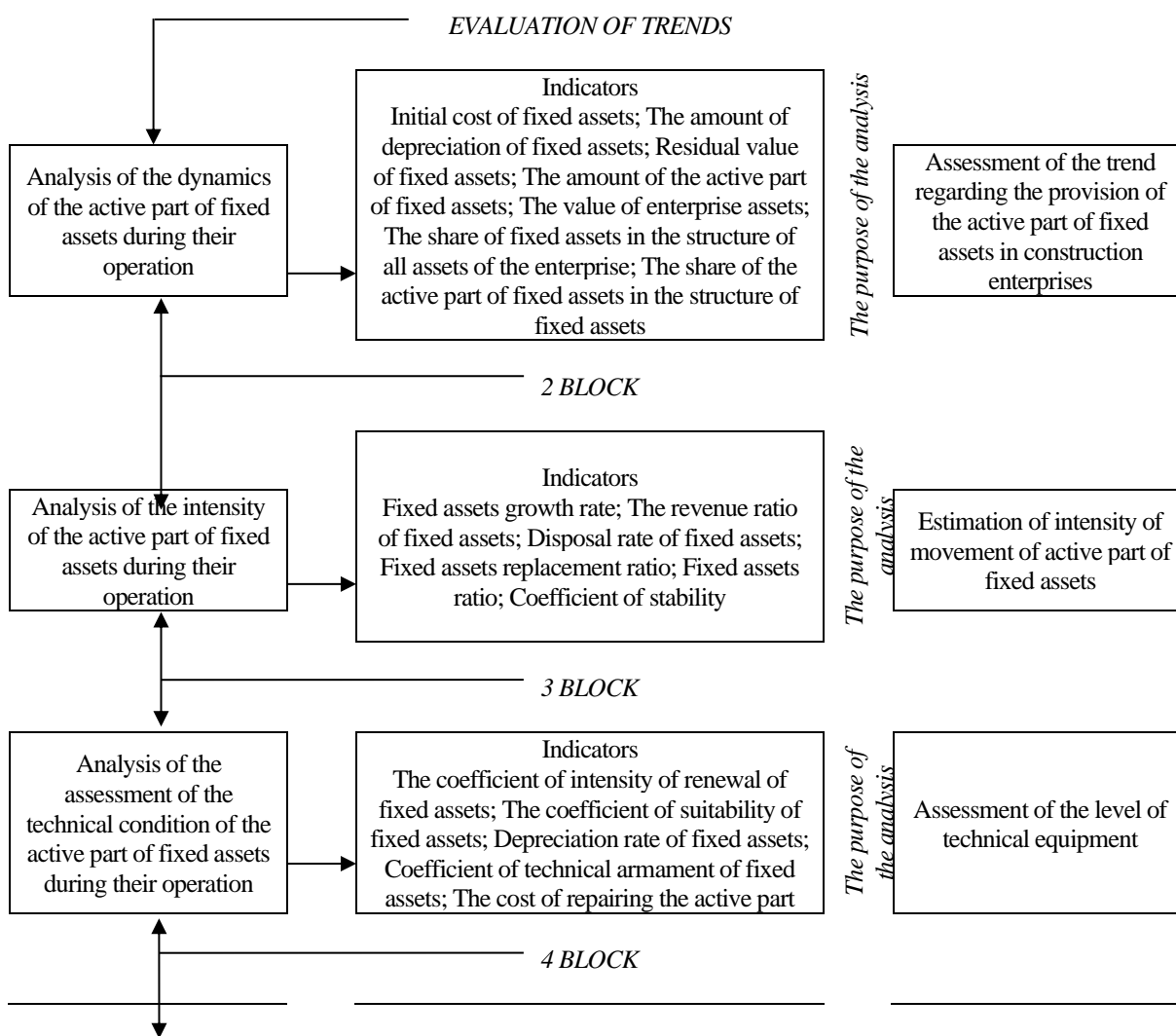
Tasks of analysis	Information support
Analysis of timeliness and completeness of cash flows of investment activities	Cash flow statement (form №3) General ledger
Analysis of fixed assets	Act of acceptance-delivery (internal transfer) of fixed assets (form № O3-1) Inventory card of fixed assets accounting (form № O3-6) Fixed assets movement card (form № O3-8) General ledger Notes to the annual financial statements (form №5)
Analysis of the completeness of the use of own funds in the implementation of domestic investments	General ledger Analysis of accounts 15 "Capital investments", 18 "Other non-current assets"

Source: [25]

Thus, taking into account the previously presented material and the research of scientists in the literature, the author proposed a model of economic analysis of fixed assets in the process of their operation, using appropriate indicators (Fig. 6.)

provision of the enterprise with fixed assets. To do this, it is necessary to find out whether the enterprises have enough fixed assets, what is their dynamics, composition, structure, technical condition, what is the level of production and its organization.

The analysis begins with determining the



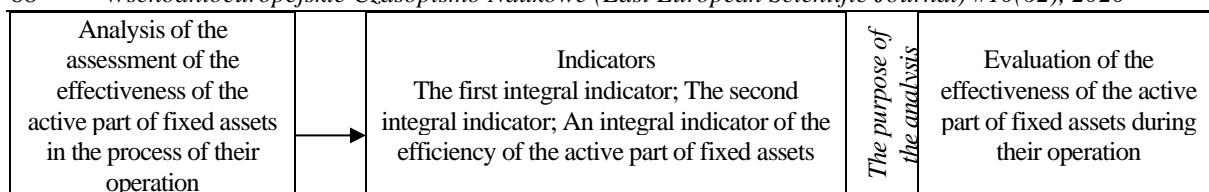


Fig. 6. Model of analysis of the active part of fixed assets of enterprises in the process of their operation  
 Source: generalized by the author on the basis of literature sources [1-25]

Indicators of the structure of fixed assets are of great analytical importance. By studying the change in the structure of assets in value terms, they find out what caused it - changes in the composition of buildings and structures or the composition of machinery, equipment and other groups of fixed assets.

Studying the condition of fixed assets, the provision of enterprises with them is also determined. To do this, first the capacity of the equipment and the extent to which this capacity corresponds to the production program of the enterprise is analyzed.

The fullest and most rational use of fixed assets and production capacity of the enterprise contributes to the improvement of all its technical and economic indicators: growth of labor productivity and return on assets, increase in output, cost reduction, capital investment savings.

When analyzing fixed assets, first of all it is necessary to determine their average annual value and the dynamics of change over a number of years. Herewith, it is necessary to compare the rate of their change with the dynamics of growth in the cost of production or production volumes in physical terms. The latter indicator should have a higher growth rate, compared to fixed assets. However, the economic difficulties, that occur in our country, may show the opposite trends.

The fixed assets of the enterprise are divided into production and non-production. The first includes fixed assets of the main type of activity (industry) and other sectors of the economy. The fixed assets of the main activity consist of buildings and structures, equipment, tools and other fixed assets.

Analyzing the composition of the main fixed assets, they should be divided into active and passive, determining the share of each group. It is necessary to study carefully how the ratio of these groups has changed in recent years. At the same time, the constant increase in the share of active funds in the form of working and power machines is the urgent goal of every enterprise.

In today's market conditions, it is very important to pay attention to what share of fixed assets is rented or leased, what land area is occupied by the company and how appropriate it is used.

Analyzing the condition of fixed assets, primarily on the basis of section I of the balance sheet asset, the coefficient of operation (depreciation) of fixed assets is calculated and its dynamics over a number of years is studied. As auxiliary it is possible to apply coefficients of disposal, updating of fixed assets, indicators of age structure of the equipment. Deterioration of these indicators may indicate serious problems with

equipment upgrades at the country's enterprises, lack of funds to finance these needs. In addition, triggered fixed assets lead to the use of outdated technological processes, which causes non-competitive products of most enterprises.

**Conclusions.** Thus, based on the results of the study, we can conclude that the main means of production of the enterprise are not used efficiently enough. Further increase in the efficiency of their use can be achieved in an intensive way, namely: - by replacing some outdated technologies with new ones, computerized technologies that will accelerate production and increase labor productivity; - reconstruction of those production sites and equipment that are "bottlenecks", ie restrain the possibility of increasing production; - organization of training and retraining of engineering and technical workers and key production workers who will be responsible for the implementation of new advanced equipment and work on it. Improving the condition of fixed assets is possible only through the renewal and implementation of technical and technological innovation modernization.

The analysis of the authors' approaches to solving the problems of economic analysis of fixed assets allowed to establish that to build a systematic approach to the analysis of the operation process of fixed assets, improving the efficiency of which directly depends on the availability and use of active assets, should take into account the specifics of the object of study, namely the process of operation of fixed assets. Based on the study, the author's approach is proposed, which provides for its implementation in terms of such areas as analysis of the dynamics of the active part of fixed assets of enterprises and development of proposals for their improvement, analysis of the intensity of the active part of fixed assets and development of suggestions on the speed of their renewal, technical condition active part of fixed assets and the allocation of proposals to improve their quality. The application of this approach allows to obtain theoretical and methodological prerequisites for the economic analysis of the operation of fixed assets in the enterprises, which allows to make management decisions on the analysis of the reproduction of the active part of fixed assets in enterprises during their operation.

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