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# Analysis of the monopolization level of raw material exports of Ukraine

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Received: 23.09.2020 Received in revised form: 15.12.2020 Accepted: 08.02.2021 **Abstract.** The formation of a competitive national economy of Ukraine is hindered by a weak system of monopoly control. The activities of oligarchic clans stimulated political lobbying, illegal influence on the management of independent enterprises, their raider capture, which led to a slowdown in Ukraine's technical progress, an increase in the hidden

economy and a decrease in its efficiency. The current trend of increasing exports of raw materials and the monopolization of major export industries makes Ukraine's economy even more dependent on the activities of several monopolists. The aim of this work was to analyze the level of monopolization of the main Ukrainian export categories - agricultural and iron industry production. Methods of this study were based on analysis of literature of the national authors, systematization and generalization of data of the State Statistics Service of Ukraine, the Antimonopoly Committee of Ukraine and other open sources. The study found that the agricultural sector of the Ukrainian economy has a dual structure – corporate (agricultural holdings) and individual farms (family farms and households), which are characterized by different directions of development. The analysis of the regional presence of agricultural holdings showed that the largest landowners cultivate land plots in almost all regions of Ukraine. At present time in the agro-industrial sector of Ukraine corporate landowners control 18.4% of arable land, exist in the form of vertically integrated holdings specializing in the cultivation of export-oriented crops. The study found that specific location of minerals explains the geographical location of iron industry enterprises in Dnipro, Donetsk, Poltava and Zaporizhia regions. However, the geography of the place of registration of these holdings or their parent companies includes Cyprus, the United Kingdom, the Netherlands and Switzerland. The group of companies Metinvest occupies an informal monopoly position in the market of ore mining and steel production in Ukraine. Thus, the main items of Ukraine's exports are under control or are significantly influenced by a small number of vertically integrated holdings, which may indicate a low level of competition. In these circumstances, one of the most important functions of the state in this area is to maintain a competitive environment and limit monopolies. At the same time, the lack of quality legislation does not allow the state to fully regulate and influence the real situation in the country.

Keywords: agricultural products, export, monopolization, iron industry

# Аналіз рівня монополізації сировинного експорту України

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Анотація. Формуванню конкурентоспроможної національної економіки України перешкоджає слабка система контролю монополізації. Діяльність олігархічних кланів стимулювала політичне лобіювання, протизаконний вплив на керівництво незалежних підприємств, їх рейдерське захоплення, що призвело до уповільнення технічного прогресу України, зростання рівня тіньової економіки та зниження її ефективності. Існуюча тенденція до збільшення експорту сировини та монополізація основних галузей експорту ставить економіку України ще в більшу залежність від діяльності кількох монополістів. Метою даної роботи був аналіз рівня монополізації основних галузей експорту України – продукції сільського господарства та чорної металургії. З'ясовано, що аграрному сектору економіки України властива дуальна структура – корпоративні (агрохолдинги) та індивідуальні господарства (сімейні ферми та господарства населення), яким властиві різноспрямовані напрямки розвитку. Аналіз регіональної присутності агрохолдингів показав, що найбільші компанії-землевласники оброблюють земельні ділянки майже в усіх областях України. Показано, що на даний момент в агропромисловому секторі України склалася ситуація, за якої корпоративні землевласники контролюють 18,4% оброблюваних земель, існують у вигляді вертикально інтегрованих холдингів, які спеціалізуються на вирощуванні експортно-орієнтованих культур. Показано, що специфіка розташування корисних копалин пояснює географічне розташування підприємств чорної металургії в Дніпропетровській, Донецькій, Полтавській та Запорізькій областях. Проте, географія місця реєстрації цих холдингів або їх материнських компаній, які ведуть основну діяльність в Україні, включає в себе Кіпр, Великобританію, Нідерланди та Швейцарію. Неформальне монопольне

становище на ринку видобутку руди та виробництва сталі в Україні займає група компаній «Метінвест». Таким чином, головні статті експорту України є підконтрольними або підпадають під значний вплив невеликої кількості вертикально інтегрованих холдингів, що може свідчити про низький рівень конкуренції. В даних умовах однією з найголовніших функцій держави в даній сфері є підтримка конкурентного середовища та обмеження монополізму. Водночас, відсутність якісного законодавства не дозволяє державі повною мірою регулювати та впливати на реальну ситуацію в країні.

Ключові слова: продукція сільського господарства, експорт, монополізація, чорна металургія

#### Introduction

Ensuring the competitiveness of the domestic economy is one of the most pressing issues over the past 30 years. Ukraine remains an outsider in the global competitiveness ranking, lagging far behind in many macroeconomic parameters and in the business environment, market monopolization, institutional and legislative level not only from developed countries but also from countries with transformational economies (Fyliuk, 2015).

The process of monopolization of the economy is controversial. On the one hand, monopolies have more opportunities to develop production, finance research, create and implement innovations. Monopolies are more large enterprises, which are characterized by the highest efficiency and lowest production costs. However, monopolies set monopolistically high prices and in a situation of weakening or lack of competition inhibit scientific and technological progress (Kovalchuk, 2013). State-created monopolies governed by administrative means and monopolies created by oligarchic financial-industrial groups based on the principle of monopoly niches are a real threat to Ukraine's competitiveness. The biggest negative consequences of this situation are the rapid decline in competitive advantage for most industries in the country (Chernelevs'ka, 2014).

The formation of a competitive national economy of Ukraine is also hindered by a weak system of monopoly control. According to the Antimonopoly Committee of Ukraine, the markets of crop and livestock products, certain branches of light industry, construction services, most of financial activity services are characterized as markets with a competitive structure, and markets for mobile services, coke, gasoline, beer have an oligopolistic structure (Krykunova, 2014). The restraint of demonopolization of certain markets in the domestic economy is explained by the use of administrative resources, which significantly complicates the development of competition. Thus, during the years of independence, the Cabinet of Ministers of Ukraine consolidated state assets and created state joint-stock companies in the mining and mining industries, medical and microbiological industry, oil and gas industry, elevator, flour and cereals and fodder industry, as well as 24 companies in the engineering industry (Chernelevs'ka, 2014).

At the same time, there is a growing influence of informal monopolies operating through non-market instruments through the pooling of power and capital (Lahutin, 2012). A significant part of monopolized commodity markets in Ukraine is formed due to natural monopolies in such industries as electricity, communications, transport and utilities (Kovalchuk, 2013). At the same time, the activities of oligarchic clans stimulated political lobbying, illegal influence on the management of independent enterprises, their raider seizure, which led to a slowdown in Ukraine's technical progress, increasing the shadow economy and reducing its efficiency (Taranych, 2019). The country failed to realize an investment and innovation breakthrough, to reform the structure of the economy in the direction of knowledge-intensive industries, which was a consequence of the monopolization of strategically important markets for economic growth and economic security (Fyliuk, 2015).

Since the 1990s, Ukraine's foreign trade has been characterized by excessive dependence on raw material exports. During the period of 2015-2019, the basis of exports was represented by agricultural products (primarily crop production) and ferrous metallurgy, which averaged 57.78% of the total exports of goods (Ukrstat). Given the specifics of these industries, they are characterized by the creation of vertically integrated associations of enterprises, which encourages the consolidation of such associations in one hand. Thus, the current trend towards increasing exports of raw materials and the monopolization of major export industries puts Ukraine's economy even more dependent on the activities of several monopolists.

**The purpose** of this work was to analyze the level of monopolization of the main exports of Ukraine - agricultural products and ferrous metallurgy.

# Materials of the article and methods of research

Analytical and analytical-statistical research methods are used in the work, in particular, analysis of literature of domestic authors, systematization and generalization of data of the State Statistics Service of Ukraine, the Antimonopoly Committee of Ukraine and other open sources.

## Results and their analysis

Attracting investment, as one of the main tasks of reforming the agricultural sector, in the conditions of Ukrainian agriculture was realized by the expansion of large capital, and the existing corruption component created a specific model of agriculture. In this structure, it is possible to distinguish two types of producers: corporate (agricultural holdings, vertically integrated structures, business associations, etc.) and individual (farmers and households) (Borodina & Prokopa, 2012).

Since the 2000s, the formation of corporate capitalism and the capitalization of agricultural production has begun in the agricultural sector of Ukraine's economy. This was based on the concentration of agricultural land and the attraction of industrial capital, which became possible as a result of legislative changes in the formation of holding structures, including in the field of production and processing of agricultural products. Holding companies were formed by the acquisition of one business entity by another in the privatization process. At the same time, some enterprises (metallurgical, coal mining, financial industries, etc.) were included in the agro-industrial sector, receiving part of the illiquid property as payment of debt (Ghutorov, 2012).

A comparative analysis of statistical data on sowing results provided by producers of three categories - OSG (personal farms), farmers and holdings - showed that as of June 1, 2019, the total

Farms in the amount of 38.268 thousand (which was less by 1.133 thousand compared to 2018) managed 15.9 million hectares, which was 81.6% of the total crop area. At the same time, holdings increased the arable land to 3.6 million hectares, which was 18.4%, respectively (AgroPolit.com, 2019).

At the same time, the existing dual structure of the agricultural sector is characterized by different directions of development of its individual parts - corporate and individual farms (family farms and households) have occupied their niches (Borodina & Prokopa, 2012).

Individual farms work in a low-cost and labor-intensive niche - growing potatoes, vegetables, fruits, dairy farming, etc. - and are aimed at meeting the needs of the population and filling the domestic food market. However, it was individual farms that provided production of up to 60% of gross agricultural output throughout the transformation period of the Ukrainian economy. The corporate sector monopolizes resource markets, especially financial ones, sales channels, and produces export-oriented, commercially attractive products. In addition, it has an influence on the formation of state agricultural policy and has access to state support (Borodina & Prokopa, 2012).

This is partially confirmed by statistical data on the dependence of production volumes and the size of the enterprise in the cultivation of major export crops of Ukraine in 2019 (Fig. 1). Thus, enterprises with a sown area of 2.000 hectares produce 41.5% and 36.1% of the total production of cereals, legumes and corn,

Table 1. Comparative characteristics of the area of sowing crops by different types of agricultural producers (AgroPolit.com, 2019)

	The size of the crop area, ha	Quantity, pcs	Crop area, ha	% of the total area of crops
Farms	До 500	31097	3047501	15.7
	500-1000	2688	1930809	9.9
	1000-5000	4130	8546973	43.9
	5000-10000	353	2351952	12.1
Holdings	10000-20000	92	1213451	6.2
	20000-50000	59	1748738	9.0
	<more 50000<="" td="" than=""><td>9</td><td>609267</td><td>3.1</td></more>	9	609267	3.1

number of companies that reported sowing was 38.451 thousand (table 1). OSG sowed 8.393 million hectares, and legal entities - 19.449 million hectares.

respectively. In the case of wheat cultivation, this figure is 18.3%. Enterprises with sown areas from 200 ha to 2000 ha grew a total of 66.1% of wheat (Ukrstat).

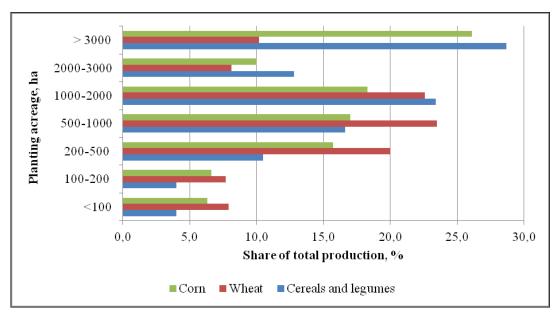


Fig.1. Dependence of production volumes and size of the enterprise when growing major export crops in 2019 (Ukrstat)

In addition, the capabilities of corporate agroindustrial enterprises allow for significant research and implementation of innovative approaches and technologies. Despite the fact that one of the typical features of small sized foreign farms, especially family type, is a higher yield per hectare, in Ukraine the situation is reversed (Fig. 2). According to Ukrstat, in 2019 the yield per 1 hectare grew with the increase in the size of the enterprise. This is less observed in

Analysis of the largest agro-industrial holdings as of 2020 is shown in the table.2. The first ten largest agricultural holdings in Ukraine have a total land bank of 2.660 million hectares, while the first three have 1.400 million hectares (latifundist.com).

The analysis of the regional presence of agricultural holdings showed that the largest landowners cultivate land plots in almost all regions of Ukraine. Some holdings with a land bank of less than

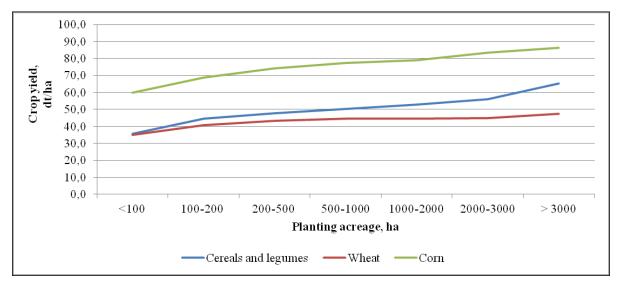


Fig.2. Yield of the main export crops depending on the area of crops of the enterprise in 2019 (Ukrstat)

the example of wheat cultivation, but the yield of corn and grain crops at enterprises larger than 3000 ha is higher by 30.5% and 45.3% (Ukrstat). Agricultural holdings tend to monocultural production, and their focus on foreign markets leads to the displacement of labor-intensive crop and livestock products, imbalance of local agricultural complexes and food markets (Kyrylov, 2014; Gheec, 2010).

200.000 hectares have a certain regional consolidation. For example, Continental Farmers Group's activities are limited to the western region, HarvEast plots are concentrated in Donetsk and two northern regions, Industrial Dairy Company is present in the northeastern region, and Ukrprominvest cultivates land in the central and south-western regions of Ukraine.

Having analyzed the above, at present in the

Table 2. The largest agro-industr	ial holdings of Ukraine b	v land bank, 2020	(latifundist.com)

Name of the holding	Land area, thousand ha	Regional location	Owner
Kernel	530	Ternopil, Odessa, Mykolaiiv, Kirovohrad, Cherkasy, Poltava, Sumy, Chernihiv, Kharkiv, Dnipro, Khmel- nytsky regions	Andriy Verevsky
Ukrlandfarming	500	22 regions of Ukraine	Oleg Bakhmatyuk
Myronivsky HP	370	Kyiv, Cherkasy, Poltava, Sumy, Dnipro, Donetsk, Kherson, Vinnytsia, Ivano-Frankivsk regions	Yuri Kosyuk
Agroprosperis	300	Sumy, Chernihiv, Kharkiv, Poltava, Vinnytsia, Zhytomyr, Khmelnytsky, Ternopil, Rivne, Volyn and Lviv regions	"NCH Capital" (George Rohr and Maurice Tabasinique)
Astarta-Kyiv	235	Poltava, Vinnytsia, Ternopil, Khmelnytsky, Kharkiv, Cherkasy, Chernihiv and Zhytomyr regions	Victor Ivanchyk
Continental Farmers Group	195	Ternopil, Khmelnytsky, Ivano-Frankivsk, Chernivtsi, Lviv regions	SALIC Ltd. (Saudi Arabia)
Epicenter K	160	Cherkasy, Khmelnytsky, Kyiv, Ternopil and Vinnytsia regions	Galyna Gerega and Oleksandr Gerega
HarvEast	127	Donetsk, Kyiv and Zhytomyr regions	"System Capital Manage- ment" (Rinat Akhmetov) and "Smart Holding" (Vadim Novinsky)
Industrial dairy company	123	Poltava, Chernihiv, Sumy regions	Oleksandr Petrov
Ukrprominvest-Agro 120		Vinnytsia, Zhytomyr, Cherkasy, Poltava, Dnipropetrovsk and Kirovohrad regions	"Ukrprominvest" (Petro Poroshenko)

agro-industrial sector of Ukraine there is a situation in which corporate landowners control 18.4% of arable land. However, these companies exist in the form of vertically integrated holdings that specialize in growing export-oriented crops. In connection with the adoption of the Law on the Land Market No 2178-10, the existing agricultural holdings will have the opportunity to further increase the land bank.

The second largest goods export group after agricultural products are metallurgical industry products. The structure of exports of metallurgical products is characterized by a significant share of semi-finished products, i.e. products with low added value. Thus, semi-finished products accounted for 43% of total exports of hardware in 2018 (Hrynko & Androsova, 2019). In general, the structure of production of the main categories of products of the metallurgical complex for 2019 is shown in the Fig.3. Compared to 2018, the production of cast iron decreased by 2.4%, steel - by 1.2%, and rolled metal - by 0.9% (Ukrmetalurgprom, 2020).

In contrast to the agricultural sector, the specifics of this industry determines the presence of large enterprises in the first place. The modern metallurgical industry of Ukraine is represented by large diversified groups of companies in the form of vertically integrated, horizontally integrated and conglomerate business groups (Kasianchuk, 2016). This can be explained by the fact that the creation of

vertically integrated companies based on mining, coke and metal, allows to reduce VAT by almost two times, which is reflected in a 20 percent reduction in unit cost. That is, the vertical integration of metallurgical industry structures reduces tax, management and technical costs (Plavshuda, 2013).

At the same time, privatization processes that accompany the creation of holding structures primarily satisfy the private interests of the owners of these enterprises and deprive the state of the opportunity to influence this area (Plavshuda, 2013). Thus, the constant influence of lobbyists on the Verkhovna Rada and the Cabinet of Ministers of Ukraine facilitated the adoption of laws, regulations and other regulations, which allowed some enterprises of the mining and metallurgical sector to receive installments of some payments to the budget at various levels, reduced tax deductions, etc. Mazur & Skoroxod, 2009). At the same time, the funds saved were not used for the development and construction of production capacity, especially during periods of extremely high prices for raw materials and ferrous metallurgy products and, consequently, surplus profits (for example, in 2010 the annual profit from iron ore exports alone was about 4 billion USD.) (Mazur, 2016). As a result, insufficient modernization and loss of industrial capacity in Donbass (approximately 3.3 million tons of steel per year) (Hrynko & Androsova, 2019) led to a decrease in steel production by 53.04 between 2008

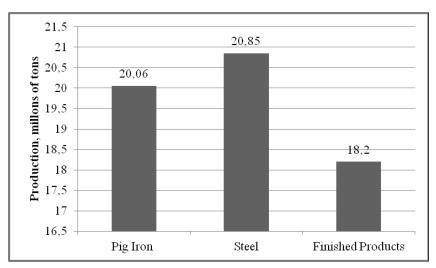


Fig. 3. Production of the main categories of products of the metallurgical complex for 2019 (Ukrmetallurgprom, 2020).

and 2018. %, from 42.8 million tons to 20.1 million tons annually (World Steel Association).

As of 2018, in the market of ferrous metallurgy of Ukraine the dominant position is occupied by several largest holdings (Table 3). The specific location of minerals explains the geographical location of ferrous metallurgy enterprises. The main areas for their concentration are Dnipropetrovsk, Donetsk, Poltava and Zaporizhia regions. However, the geography of the place of registration of these

low rents for iron ore mining and are subsidized by Ukrzaliznytsia (Gholovnjov & Vinnichuk, 2019). However, this holding reflected the crisis situation in the metallurgical industry that has developed in the Ukrainian market in recent years - in 2017, Metinvest for the first time in its history showed losses, while only profit was recorded before (Hrynko & Androsova, 2019).

Most The majority of other companies in the industry are integrated into the holding structures

<b>Table 3.</b> The largest enterprises in ferrous metallurgy of Ukraine	(Gholovnjov & Vinnichuk, 2019)
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Name of Company	Total income, billion UAH, 2018	Regional location	Owner
Metinvest	323	Dnipro, Donetsk, Luhansk, Zaporizhia regions	"System Capital Management" (Cyprus, Rinat Akhmetov) and "Smart Holding" (Netherlands, Vadim Novinsky)
ArcerolMital Kryvyi Rih	68	Dnipro region	ArcerolMittal, Luxembourg
Ferrexpo	35	Poltava region	Kostiantyn Zhevago, registered in Switzerland
Interpipe	29.2	Dnipro region	"EastOne", (Great Britain, Victor Pinchuk)

holdings or their parent companies, which have their core business in Ukraine, includes Cyprus, the United Kingdom, the Netherlands and Switzerland. Thus, most metallurgical enterprises in Ukraine are owned or controlled by large financial and industrial groups (Hrynko & Androsova, 2019).

The Groups of companies Metinvest holds an informal monopoly position in the market of ore mining and steel production in Ukraine and in 2018 was the largest company in Ukraine; however, some sources claim that the privatization of the holding's assets took place without competition and at a reduced cost, and the group's companies pay extremely

of individual businessmen (Konstantin Zhevago, Viktor Pinchuk) and the international corporation ArcerolMital. Thus, one of the main items of raw material exports of Ukraine is fully controlled by individual holdings owned by oligarchs and foreign companies.

Some studies argue that to address the situation in the metallurgical industry, first of all, it is necessary to create a state regulatory organization, the purpose of which should be to develop regulations for metallurgical enterprises, cooperation with investors to attract innovation, ensure the introduction of new energy-saving technologies and environmental

protection technologies, purchase of new equipment that will stimulate the production of high quality products and will change the existing paradigm of dependence on exports of raw materials and low competitiveness in international markets (Hrynko & Androsova, 2019).

The experience of the world leader in metallurgy - China can also help Ukraine in this situation. Establishing a full production cycle in the country, deepening research, improving the technical and engineering base, expanding intersectoral cooperation, especially with the chemical industry will improve the properties of steel and cast iron (Hrynko, 2013).

## **Conclusions**

The monopoly of certain sectors of the economy destroys competition as the basis of market self-regulation. In the Ukrainian economy, the main export items - products of agriculture, mining and metallurgical complexes - are controlled or subject to significant influence of a small number of vertically integrated holdings, which may indicate a low level of competition. In these circumstances, one of the most important functions of the state in this area is to maintain a competitive environment and limit monopolies. At the same time, the lack of quality legislation does not allow the state to fully regulate and influence the real situation in the country.

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