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The role of joint stock companies in the structural change of Ukraine's economy

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Abstract

Motivation: The corporate sector occupies a special place in the country's economy and international economic relations. Large joint stock companies (JSCs) are the basis of the country's economic potential, as they largely form the budgets of individual communities and the state, provide jobs, create networks of connections with small and medium-sized businesses, etc. The study of the relationship between the corporatization of enterprises and structural changes in the economy of Ukraine will allow to determine the socio-economic effect of the activities of JSCs.



Aim: The research aimed to identify the socio-economic effect of the development of the corporate sector in the economy of Ukraine and justification of the expediency of government regulation of foreign economic activity of JSCs.

Results: The study's results show a capital accumulation and the dominance of JSCs in low-tech and raw-material sectors. The authors' findings established that the corporatization process included the transformation of state assets into JSCs and the creation of new financial and industrial conglomerates, mainly in the mining industry and the production of agricultural raw materials. Comparison and generalization of statistical data are carried out as to the nature of foreign economic activities of JSCs. The study identifies a change in the distribution of commodity items towards increase in the share of agricultural raw materials and a tendency towards the reduction of technological chains. It is concluded about descending structural changes and reduction of the technological level of exports.

Keywords: corporate group; economy of Ukraine; foreign trade; sectoral change IEL: L22; N740; F100; O14

1. Introduction

For post-communist countries, important aspects of the transition from a hierarchical centralized model to a market competitive model of the economy include regulation of the interaction between the state and JSCs, and coordination between short-term business goals and strategic national priorities. These problems are presently acute in Ukraine. Therefore, the study of the corporate sector with its specific features and place in the national economy and international economic relations becomes extremely relevant.

2. Literature review

In contemporary scientific publications, much attention is given to the study of transnational corporations (TNCs), corporate governance and corporate social responsibility. At the same time, there are only a limited number of modern scientific literature on the role and importance of joint stock companies in the economy and the impact of its activities on the creation of new opportunities and threats to the national economy. Particularly acute for economies in transition is the problem of finding the optimal relationship between the action of development drivers and the influence of destructive factors caused by the activities of large joint stock companies. Moreover, the very term "transitional economies" in scientific publications is increasingly understood as the transition to a bioeconomy, "green", circular, renewable, low-carbon economy, etc., while a number of Central and Eastern European countries are still trying to overcome the effects of rapid market-oriented reforms.

However, researchers de Sousa Filho et al. (2021, pp. 555–575), Ickes & Ofer (2006, pp. 409–434), Marjanović (2015, pp. 63–82), Mironov & Konovalova (2019, pp. 1–26) highlight theoretical approaches to the study of structural transformations in emerging economies and analyze economic development as a set of interdependent long-term processes of structural transformations that accompany growth in different countries. Grittersová (2021, pp. 1–16), Iwasaki & Mizobata (2018, pp. 263–322), Nguyen (2016, pp. 69–84) identify the negative effects of voucher privatization in post-communist countries on the emergence of the corporate sector and corporate governance model. Researches on the impact of corporate ownership structure on their performance in transition economies were carried out by Boyd & Solarino (2016, pp. 1282–1314) and Iwasaki & Mizobata (2020, pp. 32–67). Panibratov & Klishevich (2020, pp. 307–331) investigated the opportunities and prospects used by companies from post-socialist countries for their successful international expansion. Stepanov et al. (2021, pp. 1–9) study the foreign economic activity of corporations in Russia.

A number of economists prove a positive impact of corporations on the intensification of foreign trade on the example of Central and Eastern Europe. Kalotay & Hunya (2000, pp. 39-66) note that the rapid development of corporate sector under the influence of privatization, the introduction of liberalization policy and active foreign direct investment caused increased imports. Martin (2011) pointed out the contribution of multinational corporations to the development of foreign trade, improvement of the investment environment, and modernization of Hungary's economy. In their work, Gorynia et al. (2004, pp. 29–46) show Poland's experience of integration into the global economy via the development of the export potential of national companies. MacBean (2000) describes the system of fiscal, trade and currency instruments of government incentives for the development of corporate exports of Poland, Hungary and the Czech Republic during the transition period.

3. Methods

The authors use data of the State Statistics Service of Ukraine (2022) official website in the quantitative analysis of the structure and foreign economic activities of Ukraine's joint stock companies. Empirical (observation, comparison) and theoretical (analysis, synthesis, systematization, generalization) research methods are used. Foreign publications are used for comparative analysis and identification of the features of Ukraine's corporate sector.

To analyze the dynamics of Ukraine's joint stock companies' activity, a sample of data for 5 years was presented, grouped by organizational and legal form of joint stock companies (Public joint stock partnership, JSPs) and Private joint stock partnership) (Chart 1). To investigate the sectoral structure of joint stock companies, statistical data for 2020 were grouped by company size and economic activity (Chart 2). This allowed defining the share of joint stock companies in various sectors of Ukraine's economy. The use of graphical analysis allowed depicting the dynamics of the development of joint stock companies in Ukraine and to represent joint stock companies' sectoral structure on the chart.

The share of joint stock companies in the total number of Ukrainian enterprises and organizations for 6 years is calculated (Table 1). A sample of statistical data based on company size for the period 2010-2020 was carried out and the share of each group of companies in the total number of economic entities in Ukraine was calculated (Table 2). A comparative analysis of these data was carried out.

To define the role of joint stock companies in Ukraine's economy, the change in the performance indicators of business entities for 2010–2020 was observed. The data on company size and on the share of sales and employees' number are grouped and compared (Table 3). The results of the analysis of statistical data allow identifying the trends, threats and potential benefits of this country's domestic corporate entrepreneurship.

To explore foreign economic activities of Ukraine's joint stock companies, the data on export-import operations of Ukrainian joint stock companies are used (Table 4). A comparative analysis is made on the shares of exports and imports by different product groups in the dynamics. Based on the comparative analysis of the commodity structure of Ukraine's foreign trade, the authors reveal the specifics of the joint stock companies' foreign economic activities.

4. Results

4.1. The features of formation of joint stock companies in Ukraine and their place in the economy

Share capital in Ukraine was created not in the classical way of unification of individual capital, but via the division of the authorized capital of state-owned companies into ordinary shares as a result of privatization. Thus, the restructuring of state assets has become the basis for the formation of the corporate sector. The objects of privatization were, first of all, large monopolistic companies. This led to the emergence of asymmetric conditions for investing for large and small investors. During the emergence of corporate sector, government structures and new monopolistic owners merged. Thus, a population stratum emerged in Ukrainian society, which effectively obtained a monopolistic position in the possession and disposal of former public property. The predominance of closed joint stock companies was not conductive to publicity or information openness, and, consequently, to investment attractiveness of Ukraine's corporate sector (Didkivska, 2019, pp. 465–474; Korniyak, 2019, pp. 475–492; Suprun, 2019, pp. 461-464).

During 2015-2021, a clear trend has been observed towards consolidation of the inefficient structure of the corporate sector — the number of private joint stock partnerships is increasing, and the number of public ones is decreasing (see Chart 1). As of November 1, 2021, the number of private JSPs (5323) is more than 4 times greater than the number of public JSPs (1213).

In addition, the analysis of statistics shows a considerable reduction in the number of public companies, which are subject to increased state and public control and ensure the capital flow between industries and redistribution of national wealth in the country via the placement of publicly available shares on the stock market. Conversely, the private companies, whose number is growing, due to their organizational form provide exclusively private share placement, which narrows the inflows of domestic and foreign capital. While it is precisely the increase in the number of public companies that should have contributed to the emergence of new investment objects, capital inflows, stock market development and protection of shareholders' rights.

Statistics on the activities of joint stock companies in Ukraine (see Table 1) show a steady downward trend in their number. During the period 2015–2020, the number of joint stock companies decreased by 1,878 (which constitutes 12% of their number in 2015) while the total number of economic entities increased. The tendency towards the reduction in the share of JSC in the total number of companies is due to both the decrease in the very number of JSCs and the increase in the total number of companies in the country.

The actual reduction of the corporate sector in Ukraine is confirmed by the decrease in the total number of large companies (see Table 2). Statistics for the recent decade show a gradual decline in the number of large companies until 2017, and only in recent years their number increased. In addition, there is a declining trend in the share of large and medium-sized companies in the total number of economic entities.

To determine the role of joint stock companies in Ukraine's economy, it is necessary to compare the share of large enterprises with employment rates and sales share of these economic entities (see Table 3).

The sales share of large enterprises gradually decreased from 39% in 2010 to 32.8% in 2020. At the same time, the share of medium-sized enterprises in total sales fluctuated at about the same level, and the share of small businesses increased to 27.6% in 2020 amounted. The share of employees in large enterprises during the research period also decreased from 22.3% in 2010 to 17.6% in 2020. Small businesses in 2020 accounted for 47.4% of employees.

Such data confirm the fact that in Ukraine no active development of the corporate sector or its expansion to markets is taking place, while small enterprises show increased activity. Thus, in Ukraine in 2020 the large companies whose share in total enterprises amounted to 0.14%, accounted for 32.8% of sales and 17.6% of employees.

In developed economies, apart from purely economic and social functions, large joint stock companies play a key role in the organization of R&D and implementation of innovative developments in production. However, the statistics of the decrease in the number of large enterprises in Ukraine and the reduction of their share in this country's economy indicate a decrease in the number of potentially capable of R&D corporate entities, which is particularly threatening against the background of the TNCs expansion into Ukrainian market.

Analysis of the sectoral structure of Ukraine's corporate sector (see Chart 2) shows a low share of domestic joint stock companies in high-tech industries.

The greatest number of joint stock companies in Ukraine is concentrated in wholesale and retail trade (31%), food production (14%), energy supply (10%), agriculture (7%), transport (5%), mining (5%) and metallurgy (4%). At the same time, the share of joint stock companies in high-tech industries is extremely low (1–2%). Ukraine's biggest joint stock companies mainly operate in raw-material industries — oil and gas, metallurgy, and agriculture. A negative feature of the sectoral structure of this country's corporate sector is the lack of capital concentration in high technology and rather passive attitude to the implementation of technological innovations.

4.2. Dynamics of merchandise exports and imports of domestic companies

The corporatization of Ukraine's economy in the 1990s and early 2000s was an important determinant of the specifics and peculiarities of the realization of this country's foreign trade potential. The destruction of the centralized management system and rupture of traditional economic ties had a negative impact on foreign trade. However, a general trend in the conditions of Ukraine's political and economic subjectivity in the international scene was the growth of foreign trade turnover. During this period, financial and industrial conglomerates emerged (especially in the mining and metallurgical complex), which became the country's leading exporters.

During 1996-2007, the dominant items of Ukraine's export trade were base metals, machinery and equipment, and mineral products (see Table 4). Over the decades, the share of chemical products, crop and livestock products, and food products greatly decreased. At the same time, imports of machinery and equipment increased. The share of imports of energy materials (natural gas and crude oil), pharmaceuticals, household chemicals and cosmetics remained high.

During this period, foreign trade flows were controlled by about two dozen corporate structures that united companies of mostly heavy industry. They included, in particular, the Interpipe Group, the Donbass Industrial Union, the Privat Group, the System Capital Management, Naftogaz Ukrainy, Ukravto, Ukrprominvest, etc. Under such conditions, intensive development of Ukrainian export potential halted: the country's resource base, concentrated in the hands of big capital, provided the basis for its competitive position in foreign markets (Pustovoit & Nebrat, 2021, pp. 209–229). In this context, Carson's (2021, pp. 141-146) study on the loss of wealth from monopolies is important. The loss of wealth results from the protection of the existing monopolistic profits through the restriction of investments that increase competition on the markets where these profits are generated. Thus, the protection of monopolistic profits creates a technological lag and reduces output. In this case,

the loss of welfare equals to the rent and the cost of protecting monopolistic profits.

During 2010-2020, changes took place in the commodity structure of Ukraine's foreign trade. In particular, the share of base (ferrous) metals in Ukraine's merchandise exports essentially reduced (by 15.3%). The share of machinery and equipment, and chemical products in the exports also decreased, while that of crop and livestock products, food, fats and oils considerably increased. At the same time, the share of chemical products and finished food products grew in Ukrainian imports, which are among the items that Ukraine used to supply itself with and even exported. During the same period, powerful agrarian exporting joint stock companies emerged — JV Nibulon LLC, Cargill JSC, Kernel agroholding, MHP agro-industrial holding, and others.

Thus, the decrease in the share of industrial raw materials and products of heavy industry in the structure of exports is followed by a rapid increase in the share of agricultural products. That is, the trend towards reduction in the technological level of exports is deepening.

During the 2000s, there was an active concentration and centralization in foreign economic activities in Ukraine's economy. In their study on Ukrainian agro-industrial public joint stock partnerships, Pasko et al. (2019, pp. 817–845) conclude that a large share of power concentration replaces the weak environment of the protection of investors' rights. Concentration of ownership represents a protection against unwanted interference by third parties and the government in the company's activities. At that time, the leaders among national exporters were PJSC "ArcelorMittal Kryvyi Rih", Mariupol "Ilyich Iron and Steel Works", "Kernel-Trade", "Industrial Union of Donbass", and "Azovstal Iron and Steel Works". Twelve metallurgical enterprises accounted for over a quarter of Ukrainian exports, and agricultural joint stock companies accounted for almost 8%. The share of Ukraine's top twenty exporting companies in national exports was 38.2% (IEE, 2014).

In subsequent years, the share of the most powerful metallurgical companies in the structure of exports decreased, which is partly due to the military aggression of the Russian Federation and its capture of areas where metallurgical enterprises are located. Instead, the number and share in the structure of exports of the enterprises of Ukraine's agro-industrial complex increased. The total share of the top twenty exporters in the structure of exports changed insignificantly and was 35.2% in 2017, that is, constituted almost a third of the national exports (YouControl, 2019).

Ukraine's merchandise imports have also been concentrated in certain corporate structures since the 1990s. Leaders in terms of imports are joint stock companies-importers of petroleum products and natural gas, which account for almost 21% of total imports (OKKO, 2014).

Presently, in the commodity structure of Ukrainian exports (Table 4), the share of agricultural and food processing products is growing (33.4% in 2020). Besides, the greatest shares in exports belong to the products of the metallurgical complex (18.4%), mechanical engineering (9.1%), mineral products (10.8%), and chemical products (4.1%).

In recent years, cereals (wheat, corn, barley) have remained the main item of Ukraine's exports. In the 2019/2020 marketing year, Ukrainian exporters set a record for the exports of cereals and flour, which amounted to 57.2 million tons (Ministry of Economy of Ukraine, n.d.). The main exporters of Ukrainian cereals presently are Nibulon, Louis Dreyfus Company, Kernel-Trade, ADM Trading Ukraine, Cofko Agri Resources Ukraine, which account for 31% of all exports of the above items (All Retail, 2020). In addition to cereals, a significant share in agro-industrial exports is accounted for by fats and oils (37.6%) (Ukrinform, 2021).

Presently, the second position in the structure of Ukraine's exports belongs to metal products (18.4%). Among the Ukrainian companies producing rolled metal are "Azovstal Iron and Steel Works", Mariupol "Ilyich Iron and Steel Works", PJSC "ArcelorMittal Kryvyi Rih", "Dnieper Petrovsky Metallurgical Plant", and PJSC "Zaporozhstal".

The commodity structure of Ukraine's imports in 2020 shows that the basis of imports are the following groups of goods: machinery and equipment (21.3%), mineral products, including oil and products of its processing (15.9%), chemical products (13.5%), although compared to 2019 there is a decline in the value of imports. In particular, the value of imports of machinery and equipment decreased by 13.3%, mineral products — by 36.3%, and chemical products — by 2%, while a positive dynamic is observed in terms of natural indicators.

5. Discussion

The activities of Ukrainian joint stock companies focused on the export of low-tech products, and industrial and agricultural raw materials and primary products, and reduces the opportunities for structural and technological modernization of the economy. Although the joint stock companies have a powerful resource to carry out research and development, there is still no deep modernization of production or its innovative restructuring. Controlling the strategic spheres of the national economy based on natural and mineral resources, the financial-industrial groups are conducting an extraction policy.

The industries in which large capital is concentrated in Ukraine were key ones for the reproductive type of development inherent in the industrial economy. Transition to the innovative type of economic development radically changes the positions and prospects of Ukrainian producers. In the process of innovative transformation of the global production, changes are taking place in the structure of demand on the world markets, and in the global chains of production and supply. Due to the replacement of traditional materials, raw materials, technologies, etc., the demand for metal and metal products (Ukraine's traditional exports items) is steadily declining, and over time will decline rapidly. Hence, the policy of stimulating low-tech exports in the long run will lead

to the loss of markets and, consequently, to the loss of Ukraine's competitive position in the global economy.

Generally, the export-oriented corporate strategy poses the following risks for the development of Ukraine's economy: 1) lack of innovation, loss of technology, production base, and specialists of higher technological standards; 2) dependence on imports of both high-tech and traditional products, which until recently Ukraine provided itself with (for example, crop products, dairy products, etc.); 3) land depletion, violation of crop rotation, contamination of land with chemicals, GMOs, etc.; 4) investments in export-oriented production do not create any positive social externalities; 5) reduction of production chains, and simplification of the structure of the economy bring about reduced employment and income, increased migration, depopulation, and other irreversible negative consequences; 6) dependence on global commodity markets leads to increased vulnerability to political pressure; 7) the dictate of joint stock companies as the monopolists of foreign economic activities weakens the state institutions; 8) concentration of property in joint stock companies with strengthening of their market power increase social inequality and tension.

6. Conclusion

The corporate sector is a powerful component of Ukraine's economy. The activities of large companies determine the dynamics of this country's economic development and its position in global markets and level of international competitiveness. During privatization at the turn of the 1990s and 2000s, an inefficient structure of the corporate sector emerged. Large capital is mainly concentrated in the industries that produce items with a low share of value added.

To maintain and use the existing competitive advantages and resource potential of the national economy (including mechanical engineering, instrumentation, the rocket and space complex), it is necessary to involve in the cooperation with joint stock companies a network of scientific and technological institutions, including academic organizations, scientific and technological centers of higher education, sectoral research institutes, design firms etc. State support is needed in the creation and involvement in cooperation with corporate structures of innovative small enterprises, and creation of research and production associations using the latest developments in science and technology.

Legal support for the functioning of corporate property remains imperfect due to the pressure from interest groups and corruption. Institutions of control over the activities of the corporate sector should also be strengthened.

Previous experience of the government support of exports has led to further decline in the technological level of national production, because the main exporters were and remain the agrarian and raw-material joint stock companies, which is why the state support for exports should be directed exclusively to the groups of goods with a high share of value added.

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References

- All Retail. (2020). *Top* 5 *exporters of cereals in the 2019/20 marketing year.* Retrieved 26.10.2022 from https://allretail.ua/news/67067-top-5-eksporteriv-zernovih-kultur-v-2019-20-mr.
- Boyd, B., & Solarino, A. (2016). Ownership of corporations: a review, synthesis, and research agenda. *Journal of Management*, 42(5), 1282–1314. https://doi.org/10.1177/0149206316633746.
- Carson, R. (2021). The welfare loss from monopoly re-visited: rent seeking and protectionism. *International Journal of Business and Economics Research*, 10(4), 141–146. https://doi.org/10.11648/j.ijber.20211004.14.
- de Sousa Filho, J., dos Santos, G., & de Ribeiro, L. (2021). Structural changes in the Brazilian economy 1990–2015. *Economic Systems Research*, 33(4), 555–575. https://doi.org/10.1080/09535314.2020.1802234.
- Didkivska, L.V. (2019). Stimulating the development of agrarian entrepreneurship in Ukraine. In V. Nebrat (Ed.), *Entrepreneurship in Ukraine: historical and institutional analysis* (pp. 465–474). NAS of Ukraine. Retrieved 26.10.2022 from http://ief.org.ua/docs/mg/314.pdf.
- Gorynia, M., Nowak, J., & Wolniak, R. (2004). Globalization of a transitional economy: the experience of Poland. *Journal of East-West Business*, 9(2), 29–49. https://doi.org/10.1300/J097v09n02_03.
- Grittersová, J. (2021). The politics of privatization, quality of governance, and financial development in Eastern Europe. *Problems of Post-Communism*, 69, 445–460. https://doi.org/10.1080/10758216.2020.1869908.
- Ickes, B., & Ofer, G. (2006). The political economy of structural change in Russia. *European Journal of Political Economy*, 22(2), 409–434. https://doi.org/10.1016/j.ejpoleco.2005.09.009.
- IEE. (2014). Ukraine: top 25 exporters: Forbes ranking. Retrieved 26.10.2022 from http://iee.org.ua/ua/prog_info/30494.
- Iwasaki, I., & Mizobata, S. (2018). Post-privatization ownership and firm performance: a large meta-analysis of the transition literature. *Annals of Public and Cooperative Economics*, 89(2), 263–322. https://doi.org/10.1111/apce.12180.
- Iwasaki, I., & Mizobata, S. (2020). Ownership concentration and firm performance in European emerging economies: a meta-analysis. *Emerging Markets Finance and Trade*, 56(1), 32–67. https://doi.org/10.1080/15404 96X.2018.1530107.
- Kalotay, K., & Hunya, G. (2000). Privatization and FDI in Central and Eastern Europe. *Transnational Corporations*, 9(1), 39–66.
- Korniyak, O.V. (2019). Entrepreneurship in the financial sphere: subjects, factors and development trends. In V. Nebrat (Ed.), *Entrepreneurship in Ukraine:* historical and institutional analysis (pp. 475–492). NAS of Ukraine. Retrieved 26.10.2022 from http://ief.org.ua/docs/mg/314.pdf.

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- MacBean, A. (Ed.). (2000). *Trade and transition: trade promotion in transitional economies*. Routledge. https://doi.org/10.4324/9781315039749.
- Marjanović, V. (2015). Structural changes and structural transformation in a modern development economy. *Economic Themes*, 53(1), 63–82. https://doi.org/10.1515/ethemes-2015-0005.
- Martin, R. (2011). Multinational corporations and national business systems: integration or separation. *CPS Working Papers*, 1–39.
- Ministry of Economy of Ukraine. (n.d.). *Official: in 2019/2020 MY Ukraine breaked the record for grain exports: 57.2 million tons.* Retrieved 09.11.2021 from https://www.me.gov.ua/News/Detail?lang=uk-UA&id=59a193ee-ce0e-4edb-93cf-765ce050cd25&title=Ofitsiino-U2019-2020-MrUk rainaOnovilaRekordZEksportuZernovikh57-2-MlnTonn.
- Mironov, V., & Konovalova, L. (2019). Structural changes and economic growth in the world economy and Russia. *Russian Journal of Economics*, 5(1), 1–26. https://doi.org/10.32609/j.ruje.5.35233.
- Nguyen, H. (2016). Post-privatisation Governance and Corporate Entrepreneurship in Transition Economies. *International Review of Entrepreneurship*, 14(1), 69–84.
- OKKO. (2014). *Top 25 importers of Ukraine: Forbes ranking*. Retrieved 20.10.2022 from https://www.okko.ua/top-25-importeriv-ukraini-renking-forbes.
- Panibratov, A., & Klishevich, D. (2020). Dynamic capabilities during the internationalization of MNCs from post-socialist emerging markets. *Multinational Business Review*, 28(3), 307–331. https://doi.org/10.1108/MBR-06-2019-0052.
- Pasko, O., Melnychuk, O., & Bilyk, T. (2019). Ownership concentration, investor protection and economic performance in public agroindustrial companies with the listing on Warsaw Stock Exchange. *Independent Journal of Management & Production*, 10(7), 817–845. https://doi.org/10.14807/ijmp.v10i7.914.
- Pustovoit, O.V., & Nebrat, V.V. (2021). Dynamics of international competitiveness and prospects of economic growth of Ukraine. In *Modern aspects of science: 13th volume of international collective monograph* (pp. 209–229). International Economic Institute. Retrieved 26.10.2022 from http://perspectives.pp.ua/public/site/mono/monography-13.pdf.
- State Statistics Service of Ukraine. (2022). Retrieved 26.10.2022 from https://www.ukrstat.gov.ua.
- Stepanov, E., Pletnev, D., & Pham, V. D. (2021). Assessment of sustainable foreign economic activity strategies of Russian corporations. *E3S Web of Conferences*, 258, 1–6. https://doi.org/10.1051/e3sconf/202125806017.
- Suprun, N.A. (2019). Institutional features of the corporate business environment in Ukraine. In V. Nebrat (Ed.), *Entrepreneurship in Ukraine: historical and institutional analysis* (pp. 461–464). NAS of Ukraine. Retrieved 26.10.2022 from http://ief.org.ua/docs/mg/314.pdf.



Ukrinform. (2021). The prices of sunflower oil producers have been declining since the beginning of summer: a profile association. Retrieved 20.08.2022 https://www.ukrinform.ua/rubric-economy/3300728-cini-virobnikiv-sonasnikovoi-olii-znizuutsa-z-pocatku-lita-profilna-asociacia.html.

YouControl. (2019). Metal or corn, Switzerland or the Russian Federation: trade of the top 20 Ukrainian exporters. Retrieved 15.12.2021 from https://voucontrol.com.ua/data-research/metal-chy-kukurudza-shveytsariia-chy-rftorhivlia-top-20-ukrayinskykh-eksporteriv.

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Appendix

Table 1. The share of joint stock companies in the total number of economic entities in Ukraine

Year	Total number of entities in DRPOU*, units	Number of joint stock companies, units	Share of JSC, %
2015	1117054	15630	1.40
2016	1179553	15266	1.29
2017	1230155	14763	1.20
2018	1293666	14355	1.11
2019	1346174	13939	1.04
2020	1390292	13752	0.99

Note:

Source: Own preparation based on the State Statistics Service of Ukraine (2022).

Table 2. Number of enterprises in Ukraine by their size

Year	Large enterprises		Medium-sized	enterprises	Small enterprises		
1 Cd1	number, units	share, %	number, units	share, %	number, units	share, %	
2010	586	0.15	20983	5.54	357241	94.31	
2011	659	0.18	20753	5.52	354283	94.30	
2012	698	0.19	20189	5.53	344048	94.28	
2013	659	0.17	18859	4.79	373809	95.04	
2014	497	0.15	15906	4.66	324598	95.19	
2015	423	0.12	15203	4.43	327814	95.45	
2016	383	0.13	14832	4.84	291154	95.03	
2017	399	0.12	14937	4.42	322920	95.47	
2018	446	0.13	16057	4.51	339374	95.36	
2019	518	0.14	17751	4.66	362328	95.20	
2020	512	0.14	17602	4.71	355708	95.15	

Source: Own preparation based on the State Statistics Service of Ukraine (2022).

^{*} Single State Register of Enterprises and Organizations of Ukraine (DRPOU).



Table 3. The share of sales and employees of Ukrainian enterprises by their size, %

	Large enterprises		Medium-size	ed enterprises	Small enterprises		
Years	share in total sales	share of employees	share in total sales	share of employees	share in total sales	share of employees	
2010	39.0	22.3	39.4	31.7	21.6	46.0	
2011	42.3	24.1	38.5	32.2	19.2	43.7	
2012	39.5	25.0	40.0	32.0	20.5	43.0	
2013	39.6	24.5	38.8	31.4	21.6	44.1	
2014	39.1	21.8	38.9	31.4	22.0	46.8	
2015	37.0	20.9	39.3	32.2	23.7	46.9	
2016	35.6	19.6	39.9	32.7	24.5	47.7	
2017	35.2	19.2	39.9	32.2	24.9	48.6	
2018	35.3	18.5	39.7	32.6	25.0	48.9	
2019	34.5	17.8	39.9	34.3	25.6	47.9	
2020	32.8	17.6	39.6	35.0	27.6	47.4	

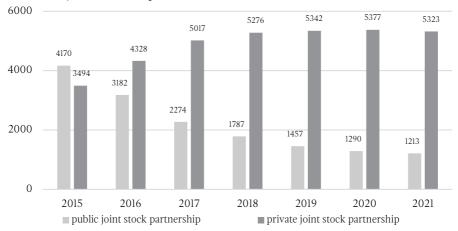
Source: Own preparation based on the State Statistics Service of Ukraine (2022).

Table 4. Commodity structure of Ukraine's foreign trade, %

Trade items	1996		20	2007 20		2010		15	2020	
Trade items	exports	imports								
base metals	33.0	4.5	42.2	7.8	33.7	6.8	24.8	5.3	18.4	5.8
chemical products	14.4	10.2	8.2	8.8	6.8	10.6	5.6	13.4	4.1	13.5
crop and livestock products	10.1	3.4	5.0	2.7	7.7	5.3	23.1	4.6	26.6	6.0
machines and equipment	9.8	13.7	10.1	17.4	11.0	13.4	10.3	16.7	9.1	21.3
ready-made food	9.7	4.8	4.2	3.4	5.0	4.1	6.5	4.3	6.8	5.5
mineral products	8.6	49.9	8.7	28.5	13.1	34.8	8.1	31.2	10.8	15.9
other	14.4	13.5	21.6	31.4	22.7	25.0	21.6	24.5	24.2	37.0

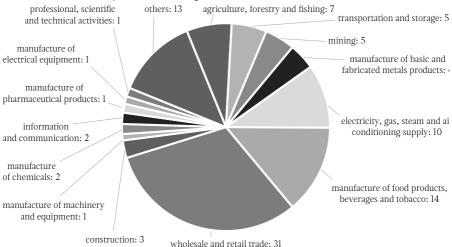
Source: Own preparation based on the State Statistics Service of Ukraine (2022).

Chart 1. Number of joint stock companies in Ukraine



Source: Own preparation based on the State Statistics Service of Ukraine (2022).

Chart 2. Sectoral structure of joint stock companies in Ukraine in 2020, %



Source: Own preparation based on the State Statistics Service of Ukraine (2022).