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STATISTICAL ANALYSIS OF ECONOMIC DEVELOPMENT OF UKRAINIAN ENTERPRISES

The article analyzes the economic situation of business entities at the beginning of the full-scale invasion of Ukraine by Russia. The relevance of the study is substantiated by significant changes in the state of socio-economic development of domestic enterprises, which was influenced by a number of external factors (COVID-2019, full-scale invasion of Russia) and affected the performance of their activities. The purpose of the article is to study the actual state of Ukrainian enterprises and to specify the needs of domestic business. Research methods: statistical analysis, generalization. According to the statistical analysis, the number of operating business entities has significantly decreased; the number of people employed in production and hired workers decreased; the negative balance of export-import operations increased; receivables and payables grew; the amount of equity capital of enterprises decreased; capex in tangible and intangible assets of enterprises decreased; the number of loss-making enterprises increased, and overall economic activity of enterprises was unprofitable; the volume of products sold decreased; the level of operating and overall profitability of enterprises decreased. The author suggests that future changes to improve the financial and economic situation should be guided by the principle of Build Back Better, i.e., not to restore existing models of action, but to introduce new, promising solutions.

Keywords: enterprises, development, economy, finance, investments, assets, status, indicators.

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СТАТИСТИЧНИЙ АНАЛІЗ ЕКОНОМІЧНОГО РОЗВИТКУ ПІДПРИЄМСТВ УКРАЇНИ

У статті за результатами статистичного аналізу відзначено, що суттєво зменшилась кількість діючих суб'єктів господарювання; зменшилась кількість зайнятих у виробництві та найманих працівників; збільшується від'ємне сальдо експортно-імпортних операцій; зростають дебіторська і кредиторська заборгованості; зменшились розміри власного капіталу підприємств; зменшились капітальні інвестиції у матеріальні й нематеріальні активи підприємств; зросла кількість збиткових підприємств, у загальному підсумку економічна діяльність підприємств є збитковою; зменшились обсяги реалізованої продукції; знизився рівень операційної і загальної рентабельності діяльності підприємств. Запропоновано майбутні зміни щодо покращення фінансово-економічної ситуації здійснювати, керуючись принципом Build Back Веtter (від англ. «побудуйте краще»), тобто не відновлювати існуючі моделі дій, а впроваджувати нові, перспективні рішення.

Ключові слова: підприємства, розвиток, економіка, фінанси, інвестиції, активи, стан, показники.

General statement of the problem and its connection with important scientific or practical tasks. The current state of socio-economic development of domestic enterprises has been significantly affected by a number of external factors (COVID-2019, full-scale invasion of Russia), which has affected their performance. Significant changes in the resilience of enterprises' activities are evidenced by the studies of scientists of previous periods (for example, Sudakovoi O. I., Bryskinoi A. O. and Orel D. A. [1]; Chmut A. V. [2]), which demonstrate positive trends in their development.

Research on the actual situation based on the analysis of official statistical information allows us to identify the most vulnerable activities and formulate recommendations for their improvement.

Analysis of the latest research and publications. Theorists and practitioners (Dykan V. L. [3]; Dlihach A. [4]; Zinchenko A. [5]; Lytovchenko L., Khloponina-Hnatenk O. and Mykhailenko V. [6; 7; 8] and others) constantly investigate the current state of business in Ukraine and note the huge losses in the country's economy and the negative factors that impede the restoration and development of business. However, due to the unpredictable development of

the situation in the country, such studies need to be conducted on an ongoing basis and analyze in detail all areas of economic activity of enterprises in order to specify business needs and actual problem-solving areas.

Formulation of the objectives of the article. The purpose of the article is to study the actual state of Ukrainian enterprises, to specify the needs of domestic business and to identify possible ways to solve problems.

Research methods: statistical analysis and generalization.

Summary of the main research material. According to the State Statistics Service of Ukraine [9], the number of operating business entities in the country has decreased rapidly over the past period (in 2022 compared to 2021): in general – by 11.5%, enterprises – by 29.4%, individual entrepreneurs – by 7.3%, which led to a further sharp economic "peak" (Table 1).

Also, in 2022, compared to 2021, there was a total decrease in the number of people employed in production (by 16.1%), employees (by 17.4%), and sales (by 24.6%), which indicates a crisis in the sociodemographic sphere and an outflow of personnel abroad (Table 2).

Number of operating business entities in Ukraine, 2019-2022

	*							
Dowind	Number of operating business entities							
Period	in total, units.	including companies	including individual entrepreneurs					
2019 p.	1941701	380673	1561028					
2020 p.	1973652	373897	1599755					
2021 p.	1956320	370906	1585414					
2022 p.	1732576	261992	1470584					

Source: compiled by the author based on [9]

Table 2
Activities of business entities, 2010-2022

Years	Number of operating business entities, units	Number of employees employed by business entities, thousand people	Number of employees of business entities, thousand people	Volume of products (goods, services) sold by business entities, UAH million
2010	2184105	11000,5	9073,6	3692554,4
2011	1701797	10393,5	8986,9	4302627,2
2012	1600304	10198,8	8861,5	4563794,8
2013	1722251	9965,1	8515,4	4437326,1
2014	1932325	9008,3	7311,6	4608978,1
2015	1974439	8331,9	6589,5	5716431,0
2016	1865631	8244,0	6597,6	6877077,3
2017	1805144	8271,3	6706,2	8467031,9
2018	1839672	8661,4	7088,8	10148847,1
2019	1941701	9145,5	7418,8	10725442,9
2020	1973652	9057,1	7379,6	11285578,9
2021	1956320	9056,1	7368,7	15240051,1
2022	1732576	7606,0	6088,1	11485855,3

Source: compiled by the author according to [9]

In 2024, Ukraine's foreign trade activity showed a slight increase in both imports and exports (Table 3), but the balance of export-import operations remains constantly negative and this gap is only growing, which does not contribute to the improvement of the economic situation (the import-export coverage ratio decreased and amounted to: in 2023 -0.66, in 2024 -0.61, which is a negative trend, indicating an outflow of funds from the country). Ukraine is currently increasing imports of transport, nuclear reactors, boilers, and machinery [9].

The financial and economic stability of domestic enterprises has deteriorated, as evidenced by a sharp increase in accounts receivable (in 2022 compared to 2021) due to the insolvency and bankruptcy of some of their clients (Table 4):

- enterprises with up to 9 employees by 9.3%;
- enterprises with 50 to 249 employees by 10.5%.

The financial vulnerability of micro and mediumsized enterprises during the crisis is expected due to their limited free financial resources. Large enterprises have a higher level of financial stability.

A similar situation with regard to the increase in debt was observed in 2022 with respect to settlements with creditors, which indicates an increase in debts of micro, medium, and large enterprises to other counterparties (Table 4):

- enterprises with up to 9 employees by 16.7%;
- enterprises with 50 to 249 employees by 11.5%;
- enterprises with 250 or more employees by 2.4%.

In 2022, compared to 2021, there was a decrease in the equity capital of enterprises in general – by 3.3% and in particular (Table 5):

- large enterprises by 1.9%;
- medium-sized enterprises by 7.6%;
- small enterprises by 1.4%;
- micro enterprises by 12.5%;

This worsens the liquidity of enterprises and reduces the possibilities for their long-term financing. Such a situation may indicate unprofitable operations or the outflow of financial capital from the country. Also, ineffective or erroneous management decisions may be one of the reasons for the decrease in equity.

In 2022, capital investment in tangible and intangible assets decreased for all sizes of enterprises (Table 6):

- large enterprises by 43.1%;
- medium-sized enterprises by 33.4%;
- small enterprises by 27.6%;
- including micro-enterprises by 6.1%.

Reducing investments in fixed assets means curtailing capital construction, reducing the purchase of new machinery, equipment, tools, inventory, transportation and other fixed assets, and directs companies to the path of survival rather than development.

We will separately analyze investments in intangible assets of enterprises as the basis for their development in the current conditions of intellectualization, informatization, and digitalization of world markets. In 2022, compared to 2021, there was a total reduction in such investments (Table 7):

- large enterprises by 51.2%;
- medium-sized enterprises by 22 %;
- small enterprises by 27 %;
- including micro-enterprises by 14%.

This reduction in investments in software, concessions, patents, licenses, trademarks and similar

Foreign trade activity of Ukraine, 2023-2024, mln. dollars USD

Table 3

Period	May. 2023	June. 2023	July. 2023	August. 2023	September. 2023	October. 2023	November. 2023	December. 2023	January. 2024	February. 2024	March. 2024	April. 2024
Exports	3145,8	2975,7	2400,6	2691,2	2681,9	2706,9	2961,6	3207,4	3398,2	3412,6	3249,5	3390,7
Imports	5055,6	5031,2	5225,4	5460,9	5403,5	5645,1	5134,8	6226,5	5091,2	4960,5	5936,8	5939,6
Balances	-1909,8	-2055,5	-2824,8	-2769,7	-2721,6	-2938,2	-2173,2	-3019,1	-1693	-1547,9	-2687,3	-2548,9

Source: compiled by the author according to [9]

Table 4

Accounts receivable and payable of Ukrainian enterprises, 2020-2022, UAH million companies with enterprises with the enterprises with the enterprises with the

Years		companies with up to 9 employees from 10 to 49 people		enterprise number of from 50 to	employees	enterprises with the number of employees from 250 people		
	accounts receivable	accounts payable	accounts receivable	accounts payable	accounts receivable	accounts payable	accounts receivable	accounts payable
2020	1490132,8	767694,7	686378,5	511830,7	814026,4	712620,7	1483834,9	1736898,3
2021	1491925,8	733030,2	854611,8	674865,9	962423,6	853943,3	1788822,1	1883325,1
2022	1630385,2	855293,7	842684,9	638603,3	1075116,3	952149,5	1884687,8	1928803,3

Source: compiled by the author according to [9]

Equity capital of Ukrainian enterprises, 2013-2022, UAH thousand

			incl	luding	
Years	Total	large enterprises	medium-sized companies	small enterprises	of them are micro- enterprises
2013	1950374877,8	828069037,5	642382730,0	479923110,3	273293012,1
2014	1480658001,0	736008001,6	397083093,4	347566906,0	233956246,7
2015	2288741367,5	1511745667,6	392176165,2	384819534,7	263155472,8
2016	2445803708,0	1801020995,0	420074755,2	224707957,8	121550808,8
2017	2458527641,4	1695328099,0	484322272,9	278877269,5	128141466,2
2018	2708576887,7	1778067774,3	514036846,5	416472266,9	216932503,8
2019	3092765858,7	1758443057,3	707237264,5	627085536,9	317430848,9
2020	3339806058,0	1864969734,4	825664851,5	649171472,1	310155263,4
2021	4113338760,4	2176895148,7	1105980997,5	830462614,2	348794571,0
2022	3975952531,6	2135158149,9	1022015204,2	818779177,5	305367656,9

Source: compiled by the author according to [9]

Table 6
Capital investments of Ukrainian enterprises, 2012-2022, UAH thousand

Years	Total	Large enterprises	Medium-sized enterprises	Small enterprises				
2012	114812960	77860007	36814222	12092180				
2013	104094848	74125006	38767078	9284162				
2014	87239943	63211269	27933685	8681484				
2015	99170796	78400886	35906476	9767774				
2016	108694081	113036119	59937697	16016779				
2017	139294067	139368087	80497649	22353863				
2018	217278118	169872251	83965173	23412349				
2019	239957640	200079086	84437348	15960309				
2020	190109186	163690967	44677926	1410176				
2021	263134434	197770613	75433811	13142644				
2022	149811219	131767483	54643387	12345464				

Source: compiled by the author according to [9]

rights pushes domestic enterprises back to a lower level in their development, reduces the already low level of innovation activity, has a detrimental effect on the production of knowledge-intensive, intellectual, technically complex products, and will worsen their competitive position in all markets (including the domestic market, which is already dominated by imported products) in the near future.

In 2022, for the first time in the last 7 years, the country's enterprises showed an overall loss in their operations, which was caused by damage and loss of property and the economic crisis. In 2022, the number of unprofitable enterprises in the total number of enterprises increased from 27.1% to 34.2% compared to 2021, and the number of profitable enterprises decreased from 72.9% to 62.8% (Table 8).

In 2022, for the first time in the last 12 years, there was a significant decrease in the volume of products sold by enterprises (Table 9).

The sharp decline in the level of profitability of Ukrainian enterprises and the negative value of indicators in 2022 compared to 2021 (by 382%)

indicates a decrease in sales, a contraction of the domestic market, a lack of own funds, and the need for additional investment (Table 10).

Conclusions and prospects for further research in this area. A statistical analysis of the state of entrepreneurial activity in Ukraine has shown that it is significantly:

- the number of operating business entities decreased;
- the number of people employed in production and hired workers decreased;
- the negative balance of export and import operations is increasing;
- accounts receivable and accounts payable are growing;
- the amount of equity capital of enterprises decreased;
- capital investments in tangible and intangible assets of enterprises decreased;
- the number of unprofitable enterprises increased, and in general, the economic activity of enterprises is unprofitable;

Table 8

Capital investments in intangible assets of Ukrainian enterprises, 2012-2022

	Large enterprises			Medium-sized enterprises			Small enterprises			including micro- enterprises		
Years	Total	in concessions, patents, licenses, trademarks and similar rights	in the purchase of software	Total	in concessions, patents, licenses, trademarks and similar rights	in the purchase of software	Total	in concessions, patents, licenses, trademarks and similar rights	in the purchase of software	Total	in concessions, patents, licenses, trademarks and similar rights	in the purchase of software
2012	3926932	1642558	1424208	2612660	1797484	458437	678718	127273	167810	145320	32831	75708
2013	5975428	3783338	1462671	2744338	1525534	506905	651989	224149	151854	138409	48104	60467
2014	2737388	966082	1265623	2973768	1769407	492813	484804	107259	91595	77596	11951	27255
2015	13357770	10446103	2326977	3036530	1589163	786928	683610	192909	183291	159991	29327	25904
2016	5285686	1728226	2737405	3839236	1978745	951706	742084	189303	219206	194095	26228	33966
2017	8131659	2740214	3956195	4607609	2111587	1169928	1571774	489496	378504	505255	164189	59914
2018	25903424	20608642	3196055	6278751	2632042	1725534	1505368	377204	458131	489245	103925	83550
2019	12023886	4766404	3994108	6620385	1966417	1443784	1366534	372316	427301	178995	31138	29286
2020	10572722	1348428	4041369	9038530	2348633	1809495	932606	66870	402286	36691	3526	5721
2021	16038183	2718501	5144896	8767581	2603049	3782625	1995290	474264	685064	468720	27723	214390
2022	7832264	445971	4804151	6837684	2547633	2009715	1460711	114920	724045	402928	48499	245887

Source: compiled by the author according to [9]

Net profit (loss) of Ukrainian enterprises, 2010-2022

		enterprises tha	at made a profit	Enterprises that incurred a loss			
Years	Total	as % of the total number of enterprises	financial result, UAH thousand	in % of the total number of enterprises	financial result, UAH thousand		
2010	13906129,7	57,3	155197596,8	42,7	141291467,1		
2011	67797898,9	63,5	208896289,9	36,5	141098391,0		
2012	35067276,8	63,0	210607600,6	37,0	175540323,8		
2013	-22839743,6	65,0	179259608,7	35,0	202099352,3		
2014	-590066944,5	65,5	202704533,9	34,5	792771478,4		
2015	-373516013,2	73,3	352980433,4	26,7	726496446,6		
2016	29705020,1	73,0	396745355,6	27,0	367040335,5		
2017	168752792,7	72,4	515460600,5	27,6	346707807,8		
2018	288305468,1	73,9	584358002,5	26,1	296052534,4		
2019	523779001,5	73,6	772019623,4	26,4	248240621,9		
2020	68054905,5	71,0	599404728,4	29,0	531349822,9		
2021	885276479,5	72,9	1117131352,8	27,1	231854873,3		
2022	-276277742,8	65,8	639197706,9	34,2	915475449,7		

Source: compiled by the author according to [9]

- the volume of products sold decreased;
- the level of operating and overall profitability of enterprises decreased.

The crisis condition of the national economy and its entities caused by the socio-economic and political situation in the country requires immediate management decisions and actions both on the part of the Government and at the level of individual enterprises.

World practice shows that overcoming long-term crisis phenomena is in the sphere of intensive development of national production [3].

According to Zaiky O.V. and Tkachenko V.V., the development of enterprises is possible in the form of evolutionary development or revolutionary development [10]. Thus, in order to realize the ideas of sustainable development, revolutionary changes are necessary. The theoretical and methodological substantiation of such changes should be based on the principle of Build Back Better, i.e., not the restoration of existing models, but the introduction of new norms and rules that correspond to new realities.

Volumes of products sold, 2010-2022

Table 9

Роки	Volume of products (goods, services) sold by business entities, UAH million
2010	3692554,4
2011	4302627,2
2012	4563794,8
2013	4437326,1
2014	4608978,1
2015	5716431,0
2016	6877077,3
2017	8467031,9
2018	10148847,1
2019	10725442,9
2020	11285578,9
2021	15240051,1
2022	11485855,3

Source: compiled by the author according to [9]

Profitability of Ukrainian enterprises, 2010-2022, units

	The lev	vel of prof	tability of o	perating a	ectivities	The level of profitability of all activities of enterprises					
Years	Total	large enterprises	medium- sized enterprises	small enterprises	of them are micro- enterprises	Total	large enterprises	medium- sized enterprises	small enterprises	of them are micro- enterprises	
2010	4,0	3,9	5,0	1,8	-3,5	0,5	0,2	2,3	-5,7	-13,9	
2011	5,9	6,2	6,0	4,2	0,8	1,8	3,3	1,2	-2,5	-8,0	
2012	5,0	5,2	5,0	4,1	-0,1	1,0	0,9	2,2	-3,3	-10,2	
2013	3,9	5,0	3,2	2,2	-2,3	-0,7	0,6	-0,1	-6,2	-16,1	
2014	-4,1	0,7	-3,6	-17,9	-30,1	-14,2	-11,1	-12,5	-26,5	-40,2	
2015	1,0	4,0	0,0	-4,2	-8,2	-7,3	-7,0	-5,0	-13,6	-20,4	
2016	7,4	8,8	6,9	5,2	-0,4	0,6	2,4	0,7	-3,6	-11,7	
2017	8,8	11,2	7,3	6,5	2,4	3,0	5,2	3,1	-2,0	-8,0	
2018	8,1	9,1	7,0	8,3	4,7	4,5	5,2	4,6	2,7	-1,8	
2019	10,2	10,3	10,0	10,7	9,3	7,6	6,8	8,6	7,0	3,3	
2020	6,2	8,3	5,4	3,9	1,0	0,9	1,0	2,1	-1,8	-5,5	
2021	12,6	17,1	7,6	15,0	12,0	10,1	12,8	7,3	11,1	7,4	
2022	3,3	5,2	2,4	1,2	-7,0	-3,2	-3,8	-1,5	-6,2	-13,8	

Source: compiled by the author according to [9]

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