

UDC 334.722:331.2(477)

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## **THE SPREADING OF SMALL BUSINESS AND THE DYNAMICS OF WAGE SHARE IN THE VALUE ADDED BY SECTORS IN THE UKRAINIAN ECONOMY**

**Abstract.** The article has been devoted to the assessment of the impact of the spreading of the small business on the position of the employees in the relationship of the distribution of the added value.

It has been researched how the potential of the small business as for the mitigation of the negative social consequences of the deterioration of the macroeconomic situation has been realized in the different types of the economic activity.

As the indicator of the spreading of the small business, the part of the small business in the general number of the employees has been used. As the indicator for the assessment of the position of the employees, it is the part of the wages consisting of the added value. The limitation of the domestic statistics does not allow modeling the dependence of these indicators neither with the help of the constructing of the panel (the necessary data is available only for ten types of the economic activity) nor the dynamic database (the data is available only from 2012 to 2015). Accordingly, we have resorted to the grouping of the types of the economic activity using the average of the geometric tempos of the growth of both indicators.

For 2012 and 2015, the dramatic reduction of the part of the value for the wages in the complex of the added value of the economy as a whole and all, except only one of the types of the economic activities has been taken place in the Ukrainian economy. Such tendency suggests that the

burden of the deterioration of the macroeconomic dynamics puts, mainly, on the employees, the recipients of the wages, depriving the domestic economy of the important sources of the resources for the investing in the development of the human capital.

Using as the indicator of the spreading of the small business of its part in the general number of the employees, we haven't got the empirical confirmation that the growth of the part of the small business in the structure of the employment improves the economic situation of the employees as for the proportion of the distribution of the added costs value (the growth of the part of the value on the wages in the complex of the added value of the generated types of the economic activity). Accordingly, we consider that in itself the redistribution of the general number of the employees in favor of the small business is not a sufficient condition for the improving of the features of the conditions of the reproduction of the personal resources of the Ukrainian economy. The results of the research haven't confirmed the positive impact of the spreading of the small business on the realization of the economic interests of the employees in the process of the distribution of the added value between the wages and other elements.

**Keywords:** small business, part of employees in small business, part of wages in added value, grouping of types of economic activities.

**JEL Classification** D39, E24, H25

Formulas: 0; fig.: 0; tabl.: 3; bibl.: 22.

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## ПОШИРЕННЯ МАЛОГО БІЗНЕСУ І ДИНАМІКА ЧАСТКИ ВИТРАТ НА ОПЛАТУ ПРАЦІ У ДОДАНІЙ ВАРТОСТІ ЗА ВИДАМИ ЕКОНОМІЧНОЇ ДІЯЛЬНОСТІ В ЕКОНОМІЦІ УКРАЇНИ

**Анотація.** Присвячено оцінці впливу поширення малого бізнесу на становище найманих працівників у відносинах розподілу доданої вартості.

Досліджено, як у різних видах економічної діяльності реалізується потенціал малого бізнесу щодо пом'якшення негативних суспільних наслідків погіршення макроекономічної ситуації.

Показником поширення малого бізнесу використано частку малого бізнесу в загальній чисельності зайнятих. Показником для оцінки становища найманих працівників є частка заробітної плати у складі доданої вартості. Обмеженість вітчизняної статистики не дозволяє здійснити моделювання залежності цих показників ні за допомогою побудови панельної (необхідні дані доступні лише за десятима видами економічної діяльності), ні динамічної бази даних (дані доступні лише з 2012 до 2015 рр.). Відповідно, ми вдалися до групування видів економічної діяльності з використанням середніх геометричних темпів зростання обох показників.

За період 2012—2015 рр. в українській економіці відбулось драматичне скорочення частки витрат на оплату праці у складі доданої вартості економіки загалом і всіх, за винятком лише одного з видів економічної діяльності. Така тенденція свідчить, що тягар погіршення макроекономічної динаміки покладається переважно на найманих працівників, отримувачів заробітної плати, позбавляючи вітчизняну економіку важливого джерела ресурсів для інвестування в розвиток людського капіталу.

Використавши як ознаку поширення малого бізнесу його частку в загальній чисельності зайнятих, ми не отримали емпіричного підтвердження того, що зростання частки малого бізнесу у структурі зайнятих сприяє поліпшенню економічного становища найманих працівників щодо пропорцій розподілу доданої вартості (зростання частки витрат на оплату праці у складі доданої вартості генерованої ВЕД). Відповідно, вважаємо, що сам по собі перерозподіл загальної чисельності зайнятих на користь малого бізнесу не є достатньою умовою поліпшення характеристик умов відтворення особистісного ресурсу української економіки. Результати дослідження не підтверджують позитивний вплив поширення малого бізнесу на реалізацію економічних інтересів найманих працівників у процесі розподілу доданої вартості між заробітною платою та іншими елементами.

**Ключові слова:** малий бізнес, частка зайнятих у малому бізнесі, частка зарплати в доданій вартості, групування видів економічної діяльності.

Формул: 0; рис.: 0; табл.: 3; бібл.: 22.

**Introduction.** The structural changes in the Ukrainian economy have been activated by the national economy adaptation to negative macroeconomic dynamics and complicated political and military processes of recent years. In particular the complicated processes of finding optimal resources and economic functions distribution between small, large and medium businesses were activated. Estimating the social consequences of these processes and the formation of a well-balanced state regulatory policy require an understanding of the connection between such structural changes — on the one hand, and the characteristics of resolving one of the basic contradictions of any economy — the contradiction in the distribution of value added generated by the national production between different factor incomes — on the other. Thus, if the expansion of small business is accompanied by growing the wage share in value added, such structural changes may be considered as a factor improving the basic conditions for the salaried employment's interests realization and, moreover, as a factor contributing to the alignment of income's factor distribution and in such way creating the prerequisites for expanding the investment into human capital, opening up the opportunities for innovative development of the national business.

Therefore, the estimating of social consequences such structural changes in the economy (in particular the redistribution of resources between small business sectors and medium and large

enterprises) is especially actual for Ukraine, which is aspiring for integrate with countries where the share of wages is significantly higher both in the operating costs of enterprises and in the added value of the national economy. Especially considering the dramatic decline in the share of wages in the Ukrainian GDP, which was observed during the recent years.

In the following, we will compare the indicators inherent to the small businesses (both enterprises and individuals — entrepreneurs) with indicators typical for the middle-sized (enterprises and individuals entrepreneurs) and large (according to the Commercial Code (as amended on March 22, 2012)) Individual entrepreneurs cannot be subjects of big business) business together. For convenience, we will call the general indicators for large and middle-sized business as inherent to the «big business», contrasting them with similar indicators of small. The essence of this contrast is the comparison of the indicators of small business with the average for the whole economy and the whole economy, except for small businesses.

**Literature analysis and problem statement.** The complicated interaction between large and small businesses is investigated by modern Ukrainian and world scientific literature at first — in the context of researching the conditions and mechanisms, providing forthcoming of production scale to the optimal level and role of market structure in these processes. Such researches are focused on problems finding the optimum compromise between the conflicting priorities of industries structure. On the one hand, the priority of maximally using the economy of scale, allowing to reach technologically achievable minimum of long-term average costs, but also — creates risks and threats of losing the competitive incentives to improve the efficiency of economic activity and weakening of resources allocation effectiveness. On the other — the priority of maximizing competitive incentives, which allow to consider the output, extent of the goods diversity and market prices as «objective result of spontaneous interaction between consumers' preferences and the productive capacity of producers» but does not allow to take advantage from economy of scale fully. Traditional analytical tools of such studies — principles of decreasing (in most branches) and growing (in industries that are natural monopolies) returns to scale, curves of long-run marginal and average cost of the company and the industry and the industry demand curves [1—4].

Explanation and simulation distribution of employment between sectors of large and small businesses are occurred in literature mainly in the context of the study on differences inherent to these sectors' reactions to changes in macroeconomic and institutional conditions of economic activity. In particular, a number of models differently describing the reaction of large and small businesses to cyclical fluctuations in economic activity were built. Many works devoted to investigate forms of participation of each sector in shaping macroeconomic trends and specific of large and small businesses adaptation to the process of inter-sectoral and intra-industry international trade, interstate economic integration [5—9].

Based on researches of the interaction between large and small business both foreign and domestic scientists consider the small business as more sensitive to adverse cyclical fluctuations (the industries and markets «cleaning» from entities which are unable to comply updated requirements to the efficiency of operating, concerns especially small business) and more dynamically captures new sectors and market niches, in times of major structural changes in the economy [10—12].

Empirical studies on the processes of creating and eliminating jobs as the basis of employment reproduction in large and small businesses, showed mainly higher activity inherent to small businesses in jobs creation, in upgrading their organizational and technical conditions and requirements for qualification characteristics of workers.

In particular, a number of studies conducted in the late twentieth century were devoted to modeling the parameters of jobs creation and liquidation in sectors of small and large business. For example, in [13] was found that the gross rate of job creation (the ratio of the total amount working places created during the period to the average number of employees for that period) is reduced in the Canada economy with moving from companies with smaller-scale of economic activities to companies with larger scale. Similarly, the job creation net rate (the ratio of surplus of jobs created

over the number of jobs eliminated to the average number of employees for that period) decreases with increasing scale business enterprises.

Similar results were obtained for Denmark [14]; for Germany — [15] (concerning the net level of job creation the highest figure was for enterprises with 20 to 49 employees); for Netherlands — [16] (concerning the net level of job creation revealed that firms with number of employees less than 100 persons have such level higher than companies with number of employees more than 100 persons); for US — [17].

The articles devoted to the synthesis of issues on the small business economical role and social effectiveness of labor remuneration are spread in domestic scientific literature. In particular, Kravchenko I., Berezynets A. consider ability of social policy institutions in Ukraine to ensure the accordance actual parameters of labor remuneration in self-employment and small business sectors to real cost of leave [18].

Kuzmenko O, Lieonov S. and Kashcha M. get evidence that «Wage arrears» as the indicator of group «The level of economic development in the region» has significant impact on the Ukrainian regions differentiation by the vulnerability level to COVID-19 [19].

Dolgalova O. and Mykhalchenko H. Consider the problems of labour remuneration as an important factor of the economic governance of the country and show that «increase of minimum wage that should base on creating favorable conditions for development of country economy» [20].

The most power negative impact of system crisis on sector of small business and self-employment and particularly vulnerable to the level of wages in such sector are highlighted in [21].

In this paper, we will try to supplement these researches by substantiating the answer to the question: what influence on the situation of wage earners is caused by such aspect of structural changes in the Ukrainian economy as the redistribution of the total number of employed and value added between the sector of small and large businesses.

**Research results.** The retrospective period covers the difficult for the Ukrainian economy years. In 2015, the growth rate of real GDP has become negative, against the backdrop of complexity political and military processes. So, the added value, created by enterprises has undergone a dramatic reduction: that indicator regarding to the whole economy and all types of economic activity scales has reduced by 22.5%. In the next years three times the growth was observed and one time — decreasing of added value created by enterprises of all economy sectors and all scales of activity (*Table 1*). But it is important to consider that using the 2015 year as a basic for comparing the performs of subsequent years, leads to their overestimating and may create a precondition for recognition the stagnation or recovery and return to earlier achieved positions as a dynamic growth.

Table 1  
**Calculations for estimating the spreading of small business impact on the share of labor costs in the Gross Value Added structure**

Economy's sectors	Years	Number of employees			Gross value added			Labor cost		
		Annual growth rate (for all scales of activity), %	Share of small business, %	Annual growth rate (for all scales of activity), %	Share of small business, %	Annual growth rate (for all scales of activity), %	Share of small business, %	Annual growth rate (for all scales of activity), %	Share of small business, %	
<b>The whole economy</b>	2015	-6,70	25,4	-22,45	15,5	-14,80	15,18			
	2016	-1,11	26,3	9,39	16,7	3,70	15,32			
	2017	0,01	27,3	1,07	18,6	7,09	16,92			
	2018	2,73	26,5	-4,63	19,9	10,27	16,17			
	2019	6,32	25,3	9,77	20,7	13,86	15,78			
<b>Agriculture, forestry and fishing</b>	2015	-4,46	30,8	-5,81	31,2	-20,04	21,47			
	2016	2,46	32	-7,33	37,7	16,02	21,07			
	2017	-4,34	35	-6,56	48,5	18,65	24,09			
	2018	-2,22	34,7	-6,07	45	14,12	24,59			
	2019	-1,96	35,6	4,02	39	16,96	25,24			
<b>Industry</b>	2015	-7,35	11,9	-26,26	5,2	-22,16	6,16			
	2016	-3,26	12,6	7,98	6,2	-3,74	6,21			
	2017	-1,19	13,3	-0,19	6,9	1,50	7,60			
	2018	-1,92	13,8	-7,51	8,5	8,38	7,50			
	2019	-3,06	13	7,86	9	11,95	6,91			
<b>Construction</b>	2015	-14,02	53,3	-44,16	38,4	-38,58	40,18			
	2016	-43,44	56	-49,22	41,3	14,10	40,57			
	2017	86,18	57,1	159,47	49,8	26,36	44,35			
	2018	6,39	56,7	4,69	41	13,83	43,39			
	2019	6,57	56,5	58,49	48,4	21,03	43,36			
<b>Wholesale and retail trade; repair of motor vehicles and motorcycles</b>	2015	-9,41	37,3	-28,73	17,9	0,76	22,04			
	2016	1,43	36,8	0,31	17,8	11,37	21,90			
	2017	6,41	36,2	7,89	17,5	8,58	22,52			
	2018	4,79	35,4	4,77	21,2	13,85	22,38			
	2019	3,28	33,6	3,96	24,2	11,16	21,20			

Table 1 (continued)

<b>Transportation and storage, postal and courier activities</b>	2015	1,83	10,8	-2,95	10,3	-7,30	6,56
	2016	-1,36	11,3	14,42	11,5	11,10	6,27
	2017	-0,17	11,8	-2,62	12,5	13,31	7,16
	2018	-0,12	12,2	-11,22	16,1	9,76	6,55
	2019	-1,08	13,4	5,18	14,7	3,44	7,38
<b>Accommodation and food service activities</b>	2015	-10,45	46,2	-0,89	22,9		23,98
	2016	4,31	46,4	38,64	25,3	-1,55	23,29
	2017	0,49	45,2	19,26	31,4	26,78	25,51
	2018	5,81	44,9	-13,67	39,1	3,91	24,71
	2019	5,03	45,3	-21,09	45,7	-9,56	26,44
<b>Information and communication</b>	2015	-14,40	37,8	-22,64	14,8	-16,95	23,30
	2016	-4,99	39,8	11,46	20,3	3,11	24,15
	2017	1,04	40,3	11,77	21,5	12,28	23,64
	2018	-0,51	41,2	-6,52	21,8	1,33	24,93
	2019	2,84	43	0,09	23,7	-4,12	26,80
<b>Finance and insurance</b>	2015	-13,85	29,6	-43,48	19,4		27,92
	2016	20,37	26,6	-19,11	23,6	26,40	26,04
	2017	-1,86	27,1	140,16	24,3	27,49	26,84
	2018	15,19	22,6	45,88	23,6	14,43	22,75
	2019	4,81	21,5	14,70	24,4	14,04	22,57
<b>Professional, scientific and technical activities</b>	2015	-13,85	29,6	14,39	17,1		29,69
	2016	20,37	26,6	81,52	12,3	1,74	31,99
	2017	-1,86	27,1	-1,76	16,9	8,38	33,36
	2018	15,19	22,6	-15,90	18,5	4,77	29,56
	2019	4,81	21,5	15,31	17,4	2,50	30,11
<b>Administrative and support services</b>	2015	-8,39	33	20627,22	34,9		27,40
	2016	-2,33	35,2	31132,65	34,3	-4,85	28,05
	2017	-3,60	38,5	37606,53	38,3	17,77	29,88
	2018	-6,94	35,2	46209,51	36,8	-11,21	27,12
	2019	10,96	36,8	62502,11	38	11,26	26,46

 Source: developed by authors on [www.ukrstat.gov.ua](http://www.ukrstat.gov.ua) [22].

All types of enterprises added value growth rate calculated for 2019 compared with 2015 is equal 15.7%; the total number of employees in Ukrainian enterprises has increased during these years by 8.0% while the analogous indicator for small enterprises was equal 7.9%. So, the lagging behind the rate of expansion of employment in small business compared to medium and large has led to a reduction in the share of small business in the total number of employees from 25.4% to 25.3%.

At the same time, the employment elasticity on added value dynamics for all types of enterprises is significantly higher than inherent to small business: the additional percent of added value leads to increment of employment in the whole economy on 0.51% while the additional percent of added value created in small business causes an increment in employees' number only on 0.15%. So, in small business labor productivity is more flexible but the number of employee's elasticity is lower comparing with indicators of the whole economy.

The growing of added value, created by all types of enterprises and by small business was accompanied by significant growth of wage share in added value regarding to the whole economy but not regarding the small business. The wage share in added value (not accounting the social charges) for all types of enterprises has increase from 23.3% in 2015 to 28.1 in 2019 but was equal 22.8 in 2015 and 21.3 in 2019 for small business.

These figures show that the benefits of favorable macroeconomic dynamics cover primarily salaried employees of large and middle enterprises, but employees of small business get increment of personal income only in proportion to the growth of the total amount of value added, which create a threat of inappropriate of dynamics labor incomes and labor contribution into the creating additional amount of added value. And thus — the threat of deterioration of the conditions for human capital reproduction, as the population's ability to invest in human capital, primarily defines the entire set of positive changes in the economy. In this sense, the development of small business acquires a special significance in modern Ukraine, since this particular sphere of the economy has the most powerful potential for mitigating the contradictions, inherent to the distribution of value added within various factor incomes. Indeed, the traditionally lower capital intensity of a small business reduces the need for accumulation of depreciation deductions, and the accumulation of undistributed profits for the needs of recovery and expansion of capital, while the «blurriness» of the status of the owner and the employee makes it easier for all small business participants to share value added as in the form of wages, so in the form of profit.

Therefore, we will try to further investigate in various economy's sectors the realization of the small business potential to mitigate the negative social consequences of the deterioration of the macroeconomic situation. In particular, are there signs that the spread of small businesses contributes to improving the position of salaried employees in the value added distribution? And is there a reverse trend: reduction the role of small business in certain economy's sector is accompanied by a deterioration of salaried employees' position in value added distribution.

The tendencies of the small businesses share in the total number of employees are significantly differ in the various economies' sectors. The dynamics of total employees' number, inherent to the various economy's sectors are also differentiated in the retrospective period. Accordingly, the different scenarios of the spreading (or collapse) of small businesses and conversion of their role in the functioning of the corresponding economy's sector may be distinguished based on dynamics of the number of employed in enterprises of all scales and share of employed in small business. In particular, the spreading of small business in a certain economy's sector (which is fixed by the growth of the small business share in the total number of employees) may be combined with the reduction of the total number of sector's employees, and with the growth of such number. Similarly, the stagnation of a small business in a certain sector (which is manifested through the decreasing of the share of employed in small enterprises) may be occurred on the background of both positive and negative trends in the total number of employees. Consequently, each time a certain influence of the dynamics of the share of small business will be combined with a differently directed influence of other factors, influencing the characteristics of employment within a certain sector. Accordingly, we must take into account the expected impact on

the share of payroll in the value added caused by the dynamics of the total number of employees in order to more realistically assess the relationship between the spreading (stagnation) of a small business in a particular economy’s sector.

Therefore, in the first step, we conducted a classification of economy’s sectors by the dynamics of the pair of indicators: the total number of employed in all business entities within certain economy’s sector and the share of employed in small businesses in such a total number.

The form of such classification was defined by the following matrix (*Table 2*).

Table 2

**The matrix for the economy’s sectors classification on the basis dynamics of total employees’ number and the share of employed in small business**

		Dynamics of economic activity characteristics within the economy’s sector	
		Growing number of employees	Reduction number of employees
<b>The dynamics of the small business prevalence characteristics</b>	Growing the share of employees in small business	Construction	<b>Due to the lower rates of reduction employees’ number in the small businesses than in large and medium:</b> Industry; <b>Due to the growth of the number of employed in small business against the background of reduction in large and medium:</b> Agriculture, forestry and fishing; Information and communication; Professional scientific and technical activities; Transportation and storage, postal and courier activities; Administrative and support services
	Reduction the share of employees in small business	Wholesale and retail trade, repair of motor vehicles and motorcycles; Accommodation and food service activities; Finance and insurance	No one from researched industries was characterized by such combination of dynamics of total employees number and employees in small business share

Source: developed by authors.

To summarize figures by four years geometric average growth rate was used. Accordingly, the geometric average growth rate of employees’ number is within less than zero was considered as sign of the dominance of negative trends in employment within economy’s sector. Such figure is greater than zero — as signs of employment expansion within the sector. Similarly, if the average geometric growth rate of the share of employment in small business positive — the sign of small business extension was fixed within sector, if negative — a sign of collapse of small businesses was observed.

In the «construction», where the growth of total number of employees was combined with small business share in employing growing the reduction of wage share in value added was observed, as in the all types of enterprises so in the small business. So, that observation hasn’t get empirical confirmation, that spreading of small business led to the improvement of conditions for human capital reproduction in Ukrainian economy on the background of expanding of employing sphere.

In the «Industry» reduction of the number of employees is accompanied by growing of the wage share in value added for the aggregate indicators (for all types of enterprises) but for small business the significant reduction of wage share in value added was observed. So, the «Industry» become second observation which put us to evidence that spreading of small business doesn’t lead to the improvement of conditions for human capital reproduction in Ukrainian economy on the background of adaptation to the narrowing of employing sphere.

The vast majority of economy’s sectors during the retrospective period were characterized by an increasing share of employed in the small business, due to the growth of the number of employed in small business against the background of reduction in large and medium. The such scenario was observed in the Agriculture, forestry and fishing; Information and communication;

Professional scientific and technical activities; Transportation and storage, postal and courier activities; Administrative and support services.

But only in the Agriculture, forestry and fishing; Transportation and storage, postal and courier activities the empirical sign, that spreading of small business led to improvement the conditions for human capital reproduction were observed (the wage share have been growing during the retrospective period in the small business sector of mentioned economy sectors). But even in such industries the growth rate of wage share in value added which was observed for large and middle business was higher, than observed for small business. The geometric average growth rate of wage share in value added was equal 1.21 for all types of enterprises in Agriculture, forestry and fishing and only 1.19 for small business sector of that industry. Analogous indicator for all types of enterprises in Transportation and storage, postal and courier activities was equal 1.08 and only 1.02 — for small business sector of that industry. So, we have only weak evidence that spreading the small business can, in domestic conditions, lead to the growing the wage share in value added and to the improvement the conditions for human capital reproduction.

We didn't consider the observations with the reducing of small business share in total number of employees as appropriate for evidence, which may be considered as the evidence that reduction of the small business role in certain economy's sector is accompanied by a deterioration of salaried employees position in value added distribution. It caused by such fact, that the rate of growth the wage share in value added which was observed for small business was lower compared with analogous growth rate defined for all types of enterprises.

The noticed above allows to group the researched sectors into three groups on the basis of the scenario of small business spreading (collapse) by criterion of the share of employed in small business in the total number of employed (*Table 3*).

Table 3

**Scenarios of small business spreading (curtailment) and dynamics of characteristics on the value added distribution between labor costs and other elements**

Scenarios of small business spreading (curtailment) by such criterion of classification as share of small business in total number of employees	Economy's sectors, where scenario was observed	Characteristics of the value added distribution between labor costs and other elements (annual geometric mean growth rate of wage share in GVA), %	
		Small business	All types of enterprises
Increase in the share of small business in number employees due to the growth of the number of employed in small business against the background of reduction in large and medium	Agriculture, forestry and fishing; Information and communication; Professional scientific and technical activities; Transportation and storage, postal and courier activities; Administrative and support services	-1.2	+2.6
Increase in the share of small business in number employees due to the lower rate of reduction employees number in small business comparing to the large and medium	Industry	+19.6	+21.4
Decrease in the share of small business in number employees	Wholesale and retail trade, repair of motor vehicles and motorcycles; Accommodation and food service activities; Finance and insurance	-11.9	-1.2

*Source:* developed by authors.

The only «Industry» is characterized by positive annual average growth rates of the salary share in value added. But even in that sector the rate of growth observed for small business was lower comparing with all types of enterprises, so we can't consider spreading the small business as a factor of improvement of salaried employees' position in value added distribution.

Regarding the scenarios «Increase in the share of small business in number employees due to the growth of the number of employed in small business against the background of reduction in large and medium» we see, that small business sector is characterized by negative growth rate of wage share in value added and, in accordance, the small business spreading can't be considered as a factor of growing the wage share in economy.

Regarding the scenarios «Decrease in the share of small business in number employees» we see, that small business sector is characterized by worse than large and middle business dynamics of wage share in value added. So, we have only weak evidence that narrowing of the small business share in employment can, in domestic conditions, lead to the growing the wage share in value added.

**Conclusions.** Significant reductions of the wage share in the added value created by small business was observed in Ukrainian economy during the 2015—2019 years, which is evidence that benefits of favorable macroeconomic dynamics cover primarily salaried employees of large and middle enterprises, but employees of small business get increment of personal income lagging from the growth of the total amount of value added. It creates a threat of inappropriate dynamics labor incomes and labor contribution into the creating additional amount of added value. And thus — the threat of deterioration of the conditions for human capital reproduction, as the population's ability to invest in human capital, primarily defines the entire set of positive changes in the economy.

The using for estimate the pace of small business spreading such figure as growth rate of the small business share in the total number of employees leads to the recording of a direct link between the intensity of small business spreading and the wage share in the added value decreasing. That, on our opinion, is evidence that there is the negative impact of the small business spreading on the realization of the salaried employees interests in processes of added value distribution in the Ukrainian economy.

Of course, such results should be interpreted only as a «first approximation» because this research does not take into account either the qualification level of the employees in the small business to large ratio, or the differentiation of the wage inherent to various groups of employees within these sectors.

Using the small businesses share in the total number of employed as a sign of its spreading, we did not receive an empirical confirmation that the enhancing the small business role in the employment contributes to improving the economic situation of salaried employees in processes of value added distribution (which should be expressed through increasing in the share of labor costs in value added). Accordingly, we believe that the redistribution of the total number of employed in favor of a small business by itself does not make a sufficient condition for improving the characteristics of human resource reproduction in the Ukrainian economy. Therefore, the qualitative changes in small business' characteristics are more important than simple scaling up of small business employment for improving spreading of small business impact on socio economical processes in Ukraine.

#### Література

1. Мэйсон Э. Ценовая и производственная политика крупного предприятия. *Вехи экономической мысли. Теория отраслевых рынков*. Санкт-Петербург : Экономическая школа, 2005. Вып. 5. С. 13—34.
2. Baumol W. J., Panzar J. C., Willig R. D. Contestable markets and the theory of industry structure. San Diego : Harcourt Brace Jovanovich, 1982.
3. Уотерсон М. Экономия от разнообразия в рамках рынка. *Вехи экономической мысли. Теория отраслевых рынков*. Санкт-Петербург : Экономическая школа, 2005. Вып. 5. С. 650—668.
4. Baumol W. J. Contestable markets: an uprising in the theory of industry structure. *American Economic Review*. 1982. Vol. 72. P. 1—15.
5. Мэтьюсон Г.Ф., Уинтер Р.А. Экономическая теория вертикальных ограничений. *Вехи экономической мысли. Теория отраслевых рынков*. Москва : Экономическая школа, 2005. Т. 5. С. 404—427.
6. Fama E. F., Laffer A. B. The number of firms and competition. *American Economic Review*. 1972. September. № 62. P. 670—674.
7. Silver M., Auster R. Entrepreneurship, Profit, and the Limits on Firm Size. *Journal of Business Univ. Chicago*. 1969. April. № 42. P. 277—281.
8. Krugman P. Increasing returns, monopolistic competition, and international trade. *Journal of International Economics*. 1979. № 9. P. 469—479.

9. Balassa B. Intra-industry trade and the integration of developing countries in the world economy. H. Giersch (Ed.). On the economics of intra-industry trade: Symposium 1978 (Institut für Weltwirtschaft an der Universität Kiel). Tübingen : J. C. B. Mohr (Paul Siebeck), 1979. P. 245—270.
10. Національні заощадження та економічне зростання / ред. Б. Е. Кваснюк. Київ : МП «Леся», 2000. 304 с.
11. Новий курс: реформи в Україні 2010—2015 : національна доповідь / В. Б. Авер'янов, Б. М. Ажнюк, Б. М. Богдан, Т. П. Бородина та ін. ; за ред. В. М. Гейця та ін. ; НАН України, Секція сусп. і гуманіт. наук. Київ : НВЦ НБУВ, 2010. 222 с.
12. Промисловість і промислова політика України 2013: актуальні тренди, виклики, можливості : наук.-аналіт. доповідь / О. І. Амоша, В. П. Вишневський, Л. О. Збаразька та ін. ; за ред. В. П. Вишневського ; НАН України, Інститут економіки промисловості. Донецьк, 2014. 200 с.
13. Picot G., Baldwin J. R., Dupuy R. Have Small Firms Created a Disproportionate Share of New Jobs in Canada? : A Reassessment of the Facts. *Statistics Canada Working Paper*. 1994. November. № 71. URL : <https://ssrn.com/abstract=3231>. (date of access: 26.12.2018).
14. Leth-Sorensen S., Boegh-Nielsen P. SMEs and Job Creation. Paper prepared for the OECD High-Level Workshop on «SMEs: Employment, Innovation and Growth». Washington, DC., 1995.
15. Wagner J. Talkin' about Job Generation: Firm Size and Job Creation in Germany. *Working Paper of the University of Lüneburg*. 1995.
16. Broersma L., Gautier P. Job creation and job destruction by small firms: An empirical investigation for the Dutch manufacturing sector. *Small Business Economics*. 1997. № 9. P. 211—224.
17. Davis S. J., Haltiwanger J. Measuring Gross Worker and Job Flows. *Labor Statistics Measurement Issues*. Chicago, 1998.
18. Кравченко І. С., Березинець А. Аналіз функціонування інститутів соціальної політики в Україні. *Фінансово-кредитна діяльність: проблеми теорії та практики*. 2020. № 3 (34). № 451—459.
19. Кузьменко О. В., Леонов С. В., Каша М. Фінансові, економічні, екологічні та соціальні детермінанти диференціації регіонів України за рівнем вразливості до COVID-19. *Фінансово-кредитна діяльність: проблеми теорії та практики*. 2020. № 3 (34). P. 270—282.
20. Долгальова О., Михальченко Н. Н. Регулювання проблем оплати праці в Україні як важливий фактор управління економікою країни. *Фінансово-кредитна діяльність: проблеми теорії та практики*. 2020. № 3 (34). P. 382—391.
21. Юрчук Н., Лешук Н., Ткаченко О., Котенок А., Червякова Д. Ринок праці України в умовах кризи системи. *Фінансово-кредитна діяльність: проблеми теорії та практики*. 2021. № 1 (36). P. 496—503.
22. Статистична інформація / Державна служба статистики України : офіційний сайт. URL : [www.ukrstat.gov.ua](http://www.ukrstat.gov.ua) (дата звернення: 02.08.2021).

Статтю рекомендовано до друку 09.08.2021

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#### References

1. Maison, E. (2005). Cenovaya i proizvodstvennaya politika krupnogo predpriyatiya [Price and production policy of a large enterprise]. *Vekhi ekonomicheskoy mysli. Teoriya otraslevykh rynkov — Milestones of Economic Thought. The theory of industrial markets*, 5, 13—34). Saint Petersburg [in Russian].
2. Baumol, W. J., Panzar, J. C., & Willig, R. D. (1982). Contestable markets and the theory of industry structure. San Diego: Harcourt Brace Jovanovich.
3. Waterson, M. (2005). Ekonomiya ot raznoobraziya v ramkah rynka [Savings from diversity within the market]. *Teoriya otraslevykh rynkov — Milestones of Economic Thought. The theory of industrial markets*, 5, 650—668). Saint Petersburg: Ekonomicheskaya shkola [in Russian].
4. Baumol, W. J. (1982). Contestable markets: an uprising in the theory of industry structure. *American Economic Review*, Vol. 72, 1—15.
5. Matthewson, G. F., & Winter, R. A. (2005). Ekonomicheskaya teoriya vertikal'nykh ogranicheniy [The economic theory of vertical constraints]. *Teoriya otraslevykh rynkov — Milestones of Economic Thought. The theory of industrial markets*, 5, 404—427. Moscow: Ekonomicheskaya shkola [in Russian].
6. Fama, E. F., & Laffer, A. B. (1972, September). The number of firms and competition. *American Economic Review*, 62, 670—674.
7. Silver, M., & Auster, R. (1969, April). Entrepreneurship, Profit, and the Limits on Firm Size. *Journal of Business Univ. Chicago*, 42, 277—281.
8. Krugman, P. (1979). Increasing returns, monopolistic competition, and international trade. *Journal of International Economics*, 9, 469—479.
9. Balassa, B. (1979). Intra-industry trade and the integration of developing countries in the world economy. H. Giersch (Ed.). On the economics of intra-industry trade: Symposium 1978 (Institut für Weltwirtschaft an der Universität Kiel). (pp. 245—270). Tübingen: J. C. B. Mohr (Paul Siebeck).
10. Kvasniuk, B. E. (Ed.). (2000). *Natsionalni zaoshchadzhennia ta ekonomichne zrostannia [National savings and economic growth]*. Kyiv: MP «Lesia» [in Ukrainian].
11. Averianov, V. B., Azhniuk, B. M., Bogdan, B. M., & Borodina, T. P. (et. al.) (2010). *Novyi kurs: reformy v Ukraini 2010—2015 [New course: reforms in Ukraine 2010—2015]*. V. M. Heiets (Ed.). NAN Ukraine, Sektsiia susp. i humanit. nauk. — NAS of Ukraine, Section susp. and humanities. Kyiv: NVTs NBUV [in Ukrainian].
12. Amosha, O. I., Vishnevskiy, V. P., & Zbarazska, L. O. (et. al.) (2014). *Promyslovist i promyslova polityka Ukrainy 2013: aktualni trendy, vyklyky, mozhlyvosti [Industry and industrial policy of Ukraine 2013: current trends, challenges, opportunities]*. V. P. Vyshnevskiy (Ed.). Donetsk: NAN Ukraine, Instytut ekonomiky promyslovosti [in Ukrainian].
13. Picot, G., Baldwin, J. R., & Dupuy, R. (1994). Have Small Firms Created a Disproportionate Share of New Jobs in Canada?: A Reassessment of the Facts. *Statistics Canada Working Paper*, 71. Retrieved December 26, 2018, from <https://ssrn.com/abstract=3231>. <http://dx.doi.org/10.2139/ssrn.3231>.
14. Leth-Sorensen, S., & Boegh-Nielsen, P. (1995). SMEs and Job Creation. Paper prepared for the OECD High-Level Workshop on «SMEs: Employment, Innovation and Growth». Washington, DC.

15. Wagner, J. (1995). Talkin' about Job Generation: Firm Size and Job Creation in Germany. *Working Paper of the University of Lüneburg*.
16. Broersma, L., & Gautier, P. (1997). Job creation and job destruction by small firms: An empirical investigation for the Dutch manufacturing sector. *Small Business Economics*, 9, 211—224. <http://dx.doi.org/10.1023/A:1017982719207>.
17. Davis, S. J., & Haltiwanger, J. (1998). Measuring Gross Worker and Job Flows. *Labor Statistics Measurement Issues*. Chicago.
18. Kravchenko, I. S., & Berezynets, A. (2020). Analiz funktsionuvannia instytutiv sotsialnoi polityky v Ukraini [Analysis of the functioning of social policy institutions in Ukraine]. *Finansovo-kredytna diialnist: problemy teorii ta praktyky — Financial and credit activities: problems of theory and practice*, 3 (34), 451—459. <https://doi.org/10.18371/fcaptp.v3i34.215598> [in Ukrainian].
19. Kuzmenko, O. V., Leonov, S. V., & Kashcha, M. (2020). Finansovi, ekonomichni, ekolohichni ta sotsialni determinanty dyferentsiatsii rehioniv Ukrainy za rivnem vrazlyvosti do COVID-19 [Financial, economic, ecological and social determinants of differentiation of regions of Ukraine by the level of vulnerability to Covid-19]. *Finansovo-kredytna diialnist: problemy teorii ta praktyky — Financial and credit activities: problems of theory and practice*, 3 (34), 270—282. <https://doi.org/10.18371/fcaptp.v3i34.215543> [in Ukrainian].
20. Dolgalova, O., & Mykhalchenko, H. H. (2020). Rehuliuвання problem oplaty pratsi v Ukraini yak vazhlyvyi faktor upravlinnia ekonomikoiu krainy [Regulation of wages in Ukraine as an important factor in managing the economy]. *Finansovo-kredytna diialnist: problemy teorii ta praktyky — Financial and credit activities: problems of theory and practice*, 3 (34), 382—391. <https://doi.org/10.18371/fcaptp.v3i34.215583> [in Ukrainian].
21. Yurchuk, N., Leshchuk, H., Tkachenko, O., Kotenok, A., & Cherviakova, D. (2021). Rynok pratsi Ukrainy v umovakh kryzy systemy [Labor market of Ukraine in conditions of crisis of system]. *Finansovo-kredytna diialnist: problemy teorii ta praktyky — Financial and credit activities: problems of theory and practice*, 1 (36), 496—503. <https://doi.org/10.18371/fcaptp.v1i36.228108> [in Ukrainian].
22. Derzhavna sluzhba statystyky Ukrainy. (n. d.). *Statystychna informatsiia [Statistical information]*. Retrieved August 2, 2021, from [www.ukrstat.gov.ua](http://www.ukrstat.gov.ua) [in Ukrainian].

The article is recommended for printing 09.08.2021

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