

ALEKSANDRAS STULGINSKIS UNIVERSITY  
BUSINESS AND RURAL DEVELOPMENT MANAGEMENT INSTITUTE

**PROGNOSTICATION AND PLANNING  
OF ECONOMIC DEVELOPMENT:  
MICROECONOMIC  
AND MACROECONOMIC LEVELS**

**Volume 2**

**Multi-authored monograph  
edited by J. Žukovskis, K. Shaposhnykov**

Kaunas, Lithuania  
2019

**Zbarsky V. K.**

*Doctor of Economic Sciences, Professor at the Department  
of Marketing and International Trade  
National University of Life and Environmental Sciences of Ukraine*

**Hrybova D. V.**

*Candidate of Economic Sciences, Doctoral Student at the Department  
of Business Consulting and International Tourism  
Dmytro Motornyi Tavria State Agrotechnological University*

**Verkhovod I. S.**

*Candidate of Economic Sciences,  
Senior Lecturer at the Department of Economics  
and Hotel and Restaurant Business  
Bohdan Khmelnytsky Melitopol State Pedagogical University*

**LEVEL OF WAGE AND PROFITABILITY  
OF ECONOMIC ACTIVITY IN THE UKRAINIAN ECONOMY:  
RESEARCH BY SECTORS OF THE ECONOMY  
AND SIZE OF ENTERPRISES**

***Summary***

*The article examines the relationship between the aggregate levels of remuneration and profitability of economic activity, which are typical for large, medium and small enterprises of different sectors of the economy. For this purpose, the indicators of wages and labor profitability (net surplus of profits / losses per employee) are brought to the comparable dimension and sectors of the economy were grouped according to the size of such indicators. We selected four sectors of the economy, which are characterized by the highest levels of profitability and analyzed their characteristics by the level of remuneration. We also analyzed the four sectors with the highest rates of wages in terms of their labor profitability.*

*It was revealed that mainly, large and small enterprises, belonging to the sectors, which are characterized by comparatively better labor profitability, at the same time, belonged to the sectors with worst indicators by the level of wages. At the same time, in the sectors, where large and small enterprises are characterized by the highest wages, the worst indicators of financial results of economic activity were observed (the highest losses per one employee). The mentioned above we tends to interpret as a sign that the strong direct connection between the level of remuneration and the level of labor profitability is not observed in the Ukrainian economy. Accordingly, entrepreneurs do not have incentives to distribute models of economic behavior, based on the dynamic growth of wages, increasing the importance of staff's competencies in the system of competitiveness factors, and on the active participation of employers in investing in human capital.*

## Introduction

The low wage in comparison with developed European countries is traditionally recognized as one of the major problems of the Ukrainian economy. It seems that difficult to find the parameter of the economy having more influence on achievement of any local or strategic objectives of socio-economic policy. The poverty of the working population, the financial problems of pension and other targeted social funds, scarce domestic demand, chronic underfunding of social sphere, excessive burden on the budget programs of social protection – it is not an exhaustive list of problems the solutions of which are dependent on the earnings of the working population and are limited in the present Ukraine by too low level of earnings.

Finally, for the majority of economically active citizens wage is the main source of income thus directly determines economic conditions, the availability of all kind of goods offered at market prices.

It seems there is only one constant feature of national system the labor resource reproduction, amidst the diversity of political, economic and social conditions: the majority of employees' low salaries. However, even the approaches to assessing the level of wages, the choice of base for comparison, the criteria for defining its dynamic as more or less economically reasonable, are the subject of heated debate. Thus, both the problem of wages' level growth, and the searching of scientific approaches to its solution are extremely important despite the many years of attention to it and dozens of government programs aimed at increasing earnings and successfully executed (according to reports of relevant ministries and agencies).

Even very fragmentary literature review on the subject of our research is far beyond the capacity of the individual article. We will try to consider very tentatively only basic for our article directions of researches, devoted to the problems of labor compensation in the economy of Ukraine.

The first line of researches may be generalized as focusing on social and economic consequences of an undervalued wages in the Ukrainian economy. In such works, the concept of “undervalued wages” is interpreted as “less than necessary for normal reproduction of labor resources, providing the desired rates of human capital accumulation and the increasing of socio-economic efficiency of the national production”. In the works of prominent Ukrainian scientists various effects of low level of labor compensation in national economy are deeply revealed, such as stagnation of social sphere, lack of domestic demand to enhance the restructuring of national production, inability of domestic producers to compete with foreign companies in the markets of high technology products, low innovation activity of domestic enterprises, financial problems of social funds, high dependence of the population on government social programs and many other [1-14].

The studies belonging to second group are focused on the reasons which cause low wage, including highlighted “two pillars of wage level: labor productivity and government policy”, but much less emphasis on contractual

regulation of wages, rather, seeing it as part of government policy because the current state of trade unions in Ukraine leaves a state as exclusive power to protect the interests of employees in the process of this regulation. Within these studies “undervalued wages” are interpreted as being not in accordance with level of productivity, economic capabilities of enterprises and (in a very small number of works which also does not contain attempts of modeling “countervailing” role of wage) from demand and supply on labor market [2-6; 15-20]. We deliberately mentioned some works in both lists, stressing that both mentioned aspects were studied by their authors.

Such studies eliminate the monopoly of the thesis of “undervalued wages” and consider also the threat caused by “too high rate of real wage increasing with considering rate of productivity growth.” We mention the works of M. Sokolyk where through comparison of productivity and wages in Ukraine and other countries the several important theses were based. First, that the wage level in Ukraine, even per unit of labor productivity is considerably inferior to developed countries (i.e. Ukraine lags behind developed countries in terms of wages more than in productivity) and, to a large extent, this is due to the “heritage” of centralized economy with tendency of undervaluing the tariff wage. Second, the growth rate of real wages in Ukraine is higher than the real growth rate of productivity, which poses a threat to financial stability [21]. Accordingly, a disruption of normal economic preconditions for wage level growth in Ukrainian economy makes our society to pay an additional cost for implementing positive and indispensable trend of wages growth in the economy.

But the role of labor remuneration system in mechanisms of economic growth (particularly in macroeconomic level) is still debatable: whether increasing wage would be used as the primary impetus to break the circle of “low wage – low productivity – low wage, etc.”, or raising wages should act as consequence of structural, technical and institutional changes designed to increase productivity and increasing wage would be engaged in the “rendering engine of productivity growth” only when organizational and technical conditions for such growth are established.

We try to contribute to its further researches, through specifying whether it is seen in the Ukrainian economy, the direct connection between differentiation of wage and profitability in sectors of economic activity. In other words, can it be argued that the sectors of the national economy, which differ higher wages are better by indicators of financial performance? If such connection exists, it may be considered as prove that the mechanisms of high (compared to the average for the economy) wage spreading are formed in the Ukrainian economy. Because, if the using of highly wage provides higher profits, then there are incentives for the expansion of economic behavior model which tend to wage growing. If such connection is not observed, we may suppose, that without dramatic changes in business environment, there are no reasons to expect the spreading of the top level of wage for the vast majority sectors of the economic activities.

**Part 1. Grounding of the method of analysis and grouping of the kind of economic activities by the correlation of level of payment of work and level of profitability in the large business sector**

To clarify the relationship between wages and profitability of national sectors of the economy we have formed a database of indicators for the 2010-2015s by sectors and size of enterprises. The data was collected separately for large, middle and small enterprise and it has significant importance for explanatory ability of collected indicators. Comparison of average size of remuneration, or summarized financial results, inherent to the different sectors of national economy is not fully correct for two main reasons.

The first is the difference of sectors by internal structure: the shares of small, medium and large enterprises, which determine the extent of sectors' saturation by capital and, accordingly, different conditions for achieving higher levels of wage and profitability, inherent to different sectors. And forming data separately, concerning large, medium and small enterprises allow us to eliminate this factor and implementing meaningful grouping.

The second main reason is the difference in the personnel's qualification structure in different sectors. However, as a first approximation, we can rely on high extent of our data aggregated, which promote alignment of such differences and reduces its importance for the results of our calculations. Accordingly, we leave the problem of comparison the average skill level of employees from different sectors for further research.

The first indicator, which has been included in the database, is the unit labor costs (i.e. costs for labor remuneration excluding social security contributions paid by employers), defined as the ratio of total labor costs for large, small and medium enterprises of certain sector to the number of employees in the relevant sector.

The second indicator is the amount of net income (net profit or loss) derived by small, medium and large enterprises of certain sector of national economy per employee in the relevant sector.

Both figures are given in comparable dimension (hryvnia per employee per month).

Calculation results are presented in Table 1.

Henceforth, we have defined the ratings for each sector of national economy (separately concerning to the small, medium and large enterprises) in terms of wage and the level of profitability, and the ratio of wage in the sector to the medium for enterprises of appropriate scale across the economy. To determine the ranking by profitability for the sector with unprofitable balance, we proceeded from the thesis, that lower absolute amounts of losses per employee give better (closer to the first) rating, respectively larger absolute size of losses given the worst (closer to 15-th) rating.

Calculation results are presented in Table 2 and Table 3.

Table 1

## Levels of wage and profitability of economic activity by economic sectors and size of enterprises in 2015

Sectors of the economy	Level of labor remuneration (payroll per employee), UAH in month			Level of profitability (net profit / losses) per employee, UAH in month		
	Large	Middle	Small	Large	Middle	Small
<b>Total</b>	<b>5947.2</b>	<b>4061.8</b>	<b>2670.3</b>	<b>-7440.4</b>	<b>-3289.8</b>	<b>-6717.3</b>
Agriculture, forestry and fisheries	4531.7	3378.9	2195.5	42763.5	10598.7	16199.1
Industry	6367.2	3885.1	2467.7	-11838.2	-4262.0	-2337.9
Construction	11676.8	3556.9	2311.2	-13916.7	-3908.7	-13219.9
Wholesale and retail trade; repair of motor vehicles and motorcycles	5587.7	4361.4	2862.5	-6928.8	-9675.1	-7648.2
Transport, storage, postal and courier activities	4962.7	3866.4	2762.3	904.4	-5100.8	-9191.2
Temporary accommodation and organization of feeding	3949.3	2295.6	1846.9	1244.1	-889.3	-5135.4
Information and telecommunication	6775.5	8477.6	3926.3	-9329.6	-8603.2	-2390.8
Finance and insurance activity	6321.3	4165.1	4126.8	442.4	26402.5	-33035.1
Real estate	9992.4	3858.6	2643.5	19240.0	-8813.1	-35571.0
Professional, scientific and technical activities	17598.5	8095.5	3721.5	-347239.9	-1406.1	-16610.0
Activity in administrative and support services	2611.8	3638.1	2539.3	-13305.6	-2276.1	-4997.5
Education	n/d	3558.1	2181.3	n/d	1050.4	-110.4
Healthcare and social protection	n/d	3279.6	1891.5	n/d	-1210.6	-709.5
Arts, sports, entertainment and recreation	41383.3	6996.1	2351.5	-32455.6	-6497.8	-8777.8
Other kind of services	n/d	4428.6	1864.3	n/d	3138.4	73.4

Source: calculated by authors on data [22], at absence data was used, in Education, Healthcare and social protection and Other kind of services the sector of large business is not separated by inner Ukrainian statistic

Table 2

Ranks of sectors by level of labor remuneration and profitability in 2015

Sectors of the economy	Ranks by level of labor remuneration			Ranks by level of profitability		
	Large	Middle	Small	Large	Middle	Small
<b>Total</b>	8	7	6	10	9	9
Agriculture, forestry and fisheries	11	14	12	1	2	1
Industry	6	8	9	12	11	5
Construction	3	13	11	14	10	13
Wholesale and retail trade; repair of motor vehicles and motorcycles	9	5	4	9	16	10
Transport, storage, postal and courier activities	10	9	5	4	12	12
Temporary accommodation and organization of feeding	12	16	16	3	5	8
Information and telecommunication	5	1	2	11	14	6
Finance and insurance activity	7	6	1	5	1	15
Real estate	4	10	7	2	15	16
Professional, scientific and technical activities	2	2	3	16	7	14
Activity in administrative and support services	13	11	8	13	8	7
Education	n/d	12	13	n/d	4	3
Healthcare and social protection	n/d	15	14	n/d	6	4
Arts, sports, entertainment and recreation	1	3	10	15	13	11
Other kind of services	n/d	4	15	n/d	3	2

Source: calculated by authors on data of table 1

Comparative analysis of sector's wage and profitability levels in 2015

Economy's sectors	Sector to average for all sectors ratio by level of labor remuneration, %			Ratio of profitability level to labor remuneration level, %		
	Large	Middle	Small	Large	Middle	Small
<b>Total</b>	100.00	100.00	100.00	-125.11	-80.99	-251.55
Agriculture, forestry and fisheries	76.20	83.19	82.22	943.64	313.67	737.85
Industry	107.06	95.65	92.41	-185.92	-109.70	-94.74
Construction	196.34	87.57	86.55	-119.18	-109.89	-571.98
Wholesale and retail trade; repair of motor vehicles and motorcycles	93.95	107.38	107.20	-124.00	-221.84	-267.19
Transport, storage, postal and courier activities	83.45	95.19	103.44	18.22	-131.93	-332.74
Temporary accommodation and organization of feeding	66.41	56.52	69.16	31.50	-38.74	-278.06
Information and telecommunication	113.93	208.72	147.03	-137.70	-101.48	-60.89
Finance and insurance activity	106.29	102.54	154.54	7.00	633.90	-800.50
Real estate	168.02	95.00	99.00	192.55	-228.40	-1345.59
Professional, scientific and technical activities	295.91	199.31	139.37	-1973.12	-17.37	-446.32
Activity in administrative and support services	43.92	89.57	95.09	-509.44	-62.56	-196.81
Education	n/d	87.60	81.69	n/d	29.52	-5.06
Healthcare and social protection	n/d	80.74	70.84	n/d	-36.91	-37.51
Arts, sports, entertainment and recreation	695.84	172.24	88.06	-78.43	-92.88	-373.28
Other kind of services	n/d	109.03	69.81	n/d	70.87	3.93

Source: calculated by authors on data of table 1

Analysis of tables' data shows that positive correlation between the wage level and profitability of labor was not observed. The average "distance" between sectors' rank in terms of remuneration to rank by level of profitability for big business equals 6.93 (or about half of the maximum distance between sectors on condition 16 participants of ranking).

Data mentioned above show that within big business, which sectors of economy are characterized by relatively higher wage, have in same time relatively lower (or close to average) level of profitability and vice versa: sectors which are characterized by relatively high profitability of labor, have in the same time relatively low wage.

In particular, we have grouped sectors of big business by the level of profitability (and define rank by wage for sectors from first four by profit per worker) and by level of wage (and define rank by labor profitability for sectors from first four by wage).

In the result, first group was formed by sectors with relatively high profitability of economic activity (as they were from the 1st to the 4th rankings on the profit per person) and relatively low level of wage.

This group includes large enterprises of such sectors by results of our calculations.

Agriculture, forestry and fisheries (with the average labor costs of 4531.8 UAH in month, which accounting only 75.2% of the average for large enterprises of all sectors) has profitability on level 42763.5 UAH per person in month. Comparison of positive profitability of certain sector to the average across the economy is senseless, because the total balance of profits and losses for the sector of large enterprises in 2015 is negative. Therefore, using as a basis of comparison, wage level, we obtained, that the Ukrainian big business sector of agriculture, forestry and fisheries has profitable per employee almost 10 times bigger than the labor cost per employee. That is unprecedented phenomenon not only for advanced economies, but also in mankind history. A tenfold excess of the profit on the size of payroll indicates that favorable conditions for the reproduction of the resource potential of the sectors are not used to convert wage into a source of investment in human capital, and the policy of low wages is clearly the leading factor of high profitability. Given that the matter concerns the sector of large enterprises, where property income is highly concentrated and not distributed among a large number of owners, it may be argued that incredible and unacceptable concentration of revenues from economic activity is inherent to the Ukrainian agriculture. Keeping the same proportions of factor incomes distribution in the future will create a direct threat to the conditions of normal resource potential reproduction in the sector and destroy social values of main component of the Ukrainian natural resources stock, its fund of agricultural land.

A similar situation concerning to large enterprises of the sector "Temporary placement and organization of food" is observed. The sector's level of wage is 3949.3 UAH in month (is only 66.4% of the average for large enterprises of

all sectors and gives the 12th rating among all the sectors by level of wage). In the same time, the sectoral level of profitability reaches 1244.1 UAH per month, which allows this sector to get the 3rd rank by profitability.

Consequently, in regard to large business of this sector, the revenues from economic activity are concentrated in the hands of small number of holders, without creating the preconditions for improving the extent of sector's saturation by human capital.

The sector "Transport, storage, postal and courier activities" has become third participant of the same group: sectors with relatively high profitable per employee and low wage. Concerning to the large enterprises of this sector, the wage level in 2015 is amounted only 4962.7 UAH in month (83.5% of the average for large enterprises of all sectors level and 10th rank among all the sectors by wage level). The level of labor profitability was 904.4 UAH in month, which provided the 4th rating among all economy's sectors.

Based on the mentioned above, we see that in the large business of three sectors, highest absolute profitability indicators (the amount of net income per employee) are accompanied by relatively low rates of wage: the level of remuneration varies from 66.4% to 83.5% of the average for large enterprises of all sectors.

The only sector of four with the highest profitable per employee is the "Real Estate Operations" which is also characterized by a high ranking of wages (9992.4 UAH, 4th rating, 168% of average for large business of all sectors). However, it should be noted that in the large business of that sector only less than 3 thousand employees are hired.

This is the first evidence that the policy of undervalued wage has become a significant factor of the profitability growth in the Ukrainian economy (at least in the sector of large enterprises). Accordingly, we can suppose that the model of large Ukrainian business development deprives the economy of sources for social development: the concentration of revenues from economic activity in the profits of owners of large companies destroys the mechanisms of investment in human capital, worsens the level of saturation of the economy by the qualified labor and, in turn, blocks for domestic enterprises the opportunity to shift their development model based on high quality of labor resources and keep their competitiveness through staffing's high innovative activities.

We have included those which have large business sectors with a relatively high level of labor remuneration (have high ranks by payroll per employee) to the second group of economy's sectors. It turned out that the majority of such sectors are characterized by relatively low profitability per employee (have low ranks by profitability).

The first economy's sector, which large enterprises fell into this group, is "Arts, sports, entertainment and recreation", where the level of remuneration in 2015 has reached 41383.3 UAH in month, i.e. was almost seven times

higher than the average level of wage for large enterprises of all the sectors of the economy (1st rank by the level of remuneration).

However, the level of profitability per employee, which was inherent to large enterprises of this sector, was the lowest among all sectors and accounted 32455,6 UAH losses per employee in month.

The second rank by the level of remuneration in large enterprises has the “Professional, scientific and technical activity” sector. The level of wages in 2015 amounted to 17598.5 UAH in month (295.9% of the average for large enterprises of all sectors), but the profitability was at the level of 347240 UAH losses per employee in month: the lowest (16th) rank<sup>1</sup> by the level of labor profitability.

The third sector, for which relatively high wages in large enterprises are combined with low profitability (high losses per employee), is “Construction”.

The level of remuneration, inherent to large enterprises of this sector in 2015, reached 11676.8 UAH in month (196.3% of the average for large enterprises of all sectors, and 3rd rank), but the level of profitability (losses) amounted to 13916.7 UAH losses per employee in month (14th rank by level of profitability).

The fourth participants are large enterprises of sector “Information and Telecommunications”. In this sector, in 2015, the level of remuneration reached 6775.5 UAH in month (113.9% of the average for all sectors and the 5th rating) and the profitability of the economic activity reached 9329.6 UAH losses per employee in month (11th rating by profitability).

Thus, more than a half (8 out of 15) of sectors of the economy are characterized by sharp contradictions within the objectives of increasing the profitability and level of remuneration in the sector of large enterprises: high wages are combined with high losses, but high profits per employee with a low wage level (a glaring example of this situation is the sector of large agricultural enterprises).

This situation shows that the sector of large enterprises in the Ukrainian economy is functioning by a model that does not provide a strong direct link between the level of labor remuneration and the level of profitability of economic activity. The most successful in solving the problem of profit maximization are large enterprises of those types of economic activity, where the practice of lowering the level of remuneration is widespread, where the main factor of maintaining competitiveness is the reduction of labor costs, which is accompanied by a decrease in the role of the personal in economic activity, by stagnation of innovation activity, formation of constant dependence on the inflow investments. As a result, the benefits due to the growth in such sectors are so concentrated in the hands of a small group of owners, that large-scale revenue streams have a minimal positive effect on the growth of public welfare.

---

<sup>1</sup> The 16th rating for 15 sectors has become the lowest since we have included averages for all sectors indicator, because it is useful for further analysis of the data (how many sectors have indicators greater than mean, and how many less).

At the same time, large enterprises belonging to the sectors, where the strategy of high-level wages is widespread, have faced a difficult financial situation. Such sectors are characterized by a high level of losses per employee. Accordingly, such size of wage, which allows consider it as investments in human capital, are turned out in destructive factor for the financial performance of enterprises. This leads to the conclusion about the importance of sphere, where “investments in human capital” are treated. Accordingly, the very social sphere, which primarily determines the social results of investing in human capital, plays prominent role for forming the model of national economy functioning. That sphere’s failure to ensure the return on investment in human capital limits the opportunities for economic development basing on a high level of remuneration, using the staff competence as a leading factor of the competitive advantages creation.

Accordingly, the better financial performances are given to enterprises of sectors, which are characterized by low propensity to invest in human capital. After all it is ridiculous to use the term “investments” concerning to the earnings at the level of subsistence minimum, which force employees to “work today to eat tomorrow”. Employees with wages of such size should not be considered as “owners of capital”. And exactly such strategy of business development, based on the reproduction of such human role in production and such mechanisms of attracting a personal factor to economic activity, is most profitable in the Ukrainian economy. Consequently, without changing the qualitative parameters of the competitive environment, without a radical increasing of social sphere’s ability to ensure the return on investments in human capital, the Ukrainian economy is doomed to further spreading of business, using unvalued wage as a leading factor in competitiveness. As a result, the reproduction of low incomes for majority of participants in economic activity should be expected in the Ukrainian economy.

## **Part 2. Analysis of indicators of the level of payment of work and the profitability to the employee of medium-sized enterprises**

Further, we will proceed to similar analysis on the indicators of the level of remuneration and profitability per employee for medium-sized enterprises.

The first group of sectors was selected by the same principle that was applied to large businesses and includes medium-sized enterprises belonging to the sectors having high profitability ranks (net income per employee is much higher than typical for the Ukrainian economic sectors) and low wage levels (labor costs per employee are significantly lower than the average for middle enterprises of all sectors).

The first rating according to the level of profitability among medium-sized enterprises has got “Financial and insurance activity” sector: 26402.5 UAH net profits per employee in month. But the middle-sized enterprises of this sector have only the 6th rating by the level of remuneration (4165.1 UAH in month, which accounts only 102.5% of the average for middle enterprises level).

The medium-sized enterprises in agriculture have second rank by labor profitability (the monthly net profit per employee is 10598.7 UAH). At the same time, the level of remuneration in this sector amounted to UAH 3378.9, i.e. 83.19% of the average for medium-sized enterprises of all sectors level (14th rank by wage level). We have already described the social consequences, expected as a result of such situation concerning large agricultural enterprises. After all we can only point out that in the medium-sized business, the ratio of the net income per employee to the level of remuneration is somewhat lower than in the large agribusiness (wages equal 31.9% of the net profits per employee, compared with 10% for large enterprises), however, the level of income concentration on agribusiness is still striking and expresses a clear threat to reproduction and social priorities of using the Ukrainian natural resources potential.

The medium-sized enterprises of education have fourth rank by profitability (1050.4 UAH net profits per employee in month). However, the middle-sized enterprises of this sector are characterized by comparatively low wage (only 3558.1 UAH, i.e. 87.6% of the average for medium enterprises of all sectors of the economy and 12th rank among 15 sectors). Consequently, medium-sized enterprises of education provide yet another example of achieving a relatively high profitability through using of undersized wages. If we add to the mentioned above the traditionally high qualification level of education employees, we can conclude that the given data even diminish the real scale of undervaluing the level of remuneration in the medium-sized enterprises of the educational sector.

The last economy's sector, within which the middle-sized enterprises have a positive profit / losses balance, is the sector "Provision of other types of services". The middle-sized enterprises of this sector are characterized by high ratings for profitability and by the level of remuneration (3rd rating by profitability per employee and 4th by the level of remuneration). This is the only sector, with medium enterprises expressing combination of relatively high profitability and wage levels.

The medium-sized enterprises of second group of the economy's sectors are characterized by relatively high wages (higher ranks by wage level) and relatively low labor profitability.

The highest level of remuneration among the medium-sized enterprises was recorded within the "Information and Telecommunications": 8477.6 UAH in month (208.7% of the average for medium-sized enterprises of all the sectors of the economy). At the same time, profitability, one of the lowest ratings, is inherent for medium-sized enterprises of this sector. Losses per employee reached 8603.2 UAH in a month in 2015. Consequently, medium-sized enterprises of the sector "Information and Telecommunications" provide an example of a combination relatively high wage with negative financial results of economic activity.

The middle-sized enterprises of the sector “Professional, scientific and technical activity” have second rank by the level of labor remuneration: 8095.5 UAH in month, which was 199.3% of the average wage for medium-sized enterprises of all economy’s sectors. The middle-sized enterprises of this economy’s sector have the 7th rating by the labor profitability (1406.1 UAH losses per employee in month). This is close to the median rating, which allows to consider the medium-sized enterprises of that sector as an example of comparatively high labor remuneration, which is accompanied by close to median profitable of economic activity.

The sector “Arts, sports, entertainment and recreation” has third rank by wage among medium-sized enterprises (labor costs per employee in 2015 was 6996.1 UAH per month, i.e. 172.2% of average for medium-sized enterprises in all sector). The labor profitability in this sector provides to it the 13th rank, (the losses per employee reached 32455.6 UAH in month in 2015). So, medium-sized companies of three economy’s sectors, which have the highest rank by wages, are characterized by worst indicators of financial performance. Accordingly, the top four sectors with the highest salaries in medium-sized enterprises account for two: where high ranks by wage are accompanied by worst indicators of labor profitability (the highest losses per employee), one sector where relatively high level of wage are combined with close to median profitability (moderate loss per employee) and one (other services) where relatively high wage is combined with high enough (third) rank by labor profitability (3138.4 UAH profit per employee in month).

We see that for the middle-sized enterprises, the contradictory between the high level of wages and high profitability is less pronounced than for the sector of large enterprises. But the average distance between the ranks of the same sector by the level of remuneration and profitability (6.8), and the composition of groups with the highest profitability and the highest level of wage (only one sector is characterized by the high wage and profitability which are combined), do not allow us to consider high wages as a prerequisite, which helps improve the financial results of the business in Ukrainian economy.

Significantly, in our opinion, the contradictory between relatively high wage and relatively high profit is stronger manifested in the sector of large enterprises. Theoretically, the accumulation and concentration of capital, the economies of scale using, the sector’s saturation by capital and growth of capital-labor ratio shall increase the marginal labor productivity, creating favorable conditions for wage increasing. However, under domestic conditions, institutional factors (traditions of using the undervalued wage, the inability of large business management to ensure the efficiency of labor processes and, therefore, improve the level of remuneration for their participants and other) are more influential. Further studies of the relations between the scale of economic activity and wages, we consider as promising direction for future work.

### **Part 3. Analysis of the level of payment of the work and the profitability of economic activity for the small business sector**

Further, we will proceed to the similar analysis of wages and labor profitability for the small enterprises.

Among small enterprises, the agriculture has the first rank by the size of net profit per employee: 16199.1 UAH in month. The small enterprises of agriculture have only 12th rank by the level of remuneration (2195.5 UAH per month, which was only 82.2% of the average for all small-scale enterprises in 2015). Accordingly, the profit per employee is almost eight times the size of remuneration. Concerning to the small business in agriculture, this situation cannot be treated as unambiguously as in the sector of large enterprises, because in small business wages, profits and property incomes are rather blurred. A significant part of the owners' income may come from direct participation in activity of small agricultural enterprises. Such owner practically receives so-called "synthetic incomes", in which the separation of wages and profits is rather conditional. However, this does not change the fact that the small business of Ukrainian agriculture sector gives us an example of a marked contradiction between the high level of remuneration and the high profitability that is being solved in domestic conditions through the using of low level remuneration for the reaching higher level of profitability.

The second rank by the profitability of economic activity among small businesses was recorded in the sector "Provision of other services" (73.4 UAH net profits per employee). Small enterprises of this economy's sector have only 15th ratings by the level of remuneration (1864.3 UAH per person in month, which was only 69.8% of the average for all small enterprises in 2015).

The third ranking by net income per employee among small businesses in 2015 was recorded in the educational sector (losses was equal 110.4 UAH per employee per month). The level of remuneration in that sector of small enterprises allowed to receive only the 13th rank by wage size (2181.3 UAH in month, which was only 81.7% of the average for all small enterprises in 2015).

The fourth ranking in terms of profitability among small enterprises was recorded in health care and social protection (losses per employee were 1210.6 UAH in month). At the same time, the level of remuneration (UAH 1891.5 per month) amounted to 70.8% of the average for all sectors of small business economy gave only 14th rank among 15 economy's sectors.

Among four sectors, which are characterized by the highest levels of remuneration among small business are presented "Financial and insurance activity" (4126,8 UAH in month, 154,5% of the average for all small enterprises and the 1st rank); "Information and telecommunications" (3926.3 UAH in month, 147.0% of average level, the 2nd rank); "Professional, scientific and technical activity" (3721.5 UAH in month, 139.4% of average, the 3rd rank) and "Wholesale and retail trade; repair of motor vehicles and motorcycles" (2862.5 UAH in month, 107.2% of the average for all small enterprises, the 4th rating).

For small enterprises of these sectors, respectively, inherent the 15th, 6th, 14th and 10th rank according to the level of profitability of economic activity. Thus, three out of four sectors, the small enterprises of which are characterized by the highest wages at the same time, are among the four most unprofitable, one is close to the median losses per employee. The small enterprises of any sectors, with the highest level of wage, did not receive a positive balance of financial result.

The mentioned above shows that in the small business the best indicators of profitability (the highest profitability, or the smallest absolute amounts of losses per employee) are accompanied by worst levels of wages (the latest wage rank are typical for the sectors with better ranks by profitability) and, vice versa, sectors with the highest labor costs per employee are predominantly characterized by the worst indicators of financial performance.

### **Conclusions**

1. Comparison of the remuneration level with the level of profitability of large, medium and small enterprises in different economy's sectors showed that, mainly, large and small enterprises, belonging to the sectors, which are characterized by comparatively better labor profitability, at the same time, belonged to the sectors with worst indicators by the level of wages. At the same time, in the sectors, where large and small enterprises are characterized by the highest wages, the worst indicators of financial results of economic activity were observed (the highest losses per one employee). Such a contradiction between high profitable and high earnings is less pronounced concerning to the medium-sized enterprises. In this sector even the only coincidence of comparatively high rates of wages and profitability was found: medium-sized enterprises, of the "provision of other types of services" are characterized by relatively high levels of remuneration (4th rank) and labor profitability level (3rd rank). However, the prevailing tendency, which is most pronounced in relation to large and small enterprises, and somewhat less, in regard to the middle-sized: the highest profitability is inherent for those sectors that show the lowest wages, while sectors, which have the highest wage rates, are characterized, at the same time, by the greatest losses per employee.

2. The mentioned in paragraph 1 tends to interpret as a sign that the strong direct connection between the level of remuneration and the level of labor profitability is not observed in the Ukrainian economy. Accordingly, entrepreneurs do not have incentives to distribute models of economic behavior, based on the dynamic growth of wages, increasing the importance of staff's competencies in the system of competitiveness factors, and on the active participation of employers in investing in human capital.

3. Accordingly, without dramatic changes in business environment, there are no reasons to expect the spreading of the top level of wage for the vast majority sectors of economic activities. The using of undervalued labor costs,

getting the benefits through a monopoly position in the market and exploitation of concentrated large-scale production will “displace” innovation activity of personnel and limit of increasing the efficiency of business processes. Thus, the increasing remuneration will be “shifted” from the range of widespread patterns of economic behavior.

### References:

1. Lagutin V. D. (2000) Reforma oplaty pratsi stymulyuyuchoho typu v Ukrayini: teoriya, kontseptsiya, praktychni rekomendatsiyi i propozytsiyi: Monohrafiya [Reform of payment of the work of stimulate type in Ukraine: theory, concept, practical recommendations and proposals: Monograph]. Lutsk: Vezha. (in Ukrainian)
2. Geyets V. M. (2011) Strukturni zminy ta ekonomichnyy rozvytok Ukrayiny [Structural changes and economic development of Ukraine] Kyiv: In-t ekonomicy ta prognozyvannya. (in Ukrainian)
3. Grishnova O. A. (2011) Trudovyy potentsial Ukrayiny: otsinka stanu, efektyvnist' vykorystannya, stratehichni napryamy rozvytku [Labor potential of Ukraine: assessment, efficiency of the use, strategic directions of development]. Cherkasy: TOV “MAKLAUT”. (in Ukrainian)
4. Kolot A. M. (2010). Sotsial'no-trudova sfera: stan vidnosyn, novi vyklyky, tendentsiyi rozvytku [Social and labor sphere: the condition of relations, new challenges, development trends]. K.: DVNZ “Kyiv National Vadim Hetman University”. (in Ukrainian)
5. Geyets V. M. (2015) Baryery na shlyakhu rozvytku promyslovosti na innovatsiyiniy osnovi ta mozhlyvosti yikh podolannya. [Barriers to the way of the development of industry on an innovative basis and opportunities to overcome them]. *Ekonomika Ukrayiny Economy of Ukraine*, no. 1, pp. 4–25.
6. Libanova E.M. (2010) Lyuds'kyi rozvytok v Ukrayini: minimizatsiya sotsial'nykh ryzykiv [Human development in Ukraine: minimizing social risks]. K.: Institute of Demography and Social Research. (in Ukrainian)
7. Grishnova O., Polivyana N. (2007) Upravlinnya lyuds'kym kapitalom u konteksti realizatsiyi innovatsiyanoi stratehii pidpryyemstva [Human capital management in the context of implementation of the innovation strategy of enterprise]. *Ukrayina: aspekty pratsi – Ukraine: Aspects of Labor*, no. 5, pp. 37-41.
8. Petrova I. (2001) Oplata pratsi v motyvatsiyiniy systemi suchasnoho pidpryyemstva [Remuneration in the motivational system of modern enterprise]. *Ukrayina: aspekty pratsi Ukraine: Aspects of Labor*, no. 7, pp. 22-27.
9. Boginya D. (2000) Aktual'ni problemy rehulyuvannya dokhodiv i orhanizatsiyi oplaty pratsi na etapi transformatsiyi ekonomiky Ukrayiny [Actual problems of income regulation and organization of remuneration at the stage of transformation of the Ukrainian economy]. *Ukrayina: aspekty pratsi – Ukraine: Aspects of Labor*, no. 6, pp. 3-11.
10. Pavlovskaya N. (2001) Neobkhidnist' ta shlyakhy zabezpechennya vyperedzhayuchoho zrostannya zarobitnoyi platy [The necessity and ways of ensuring of advance wage growth]. *Ukrayina: aspekty pratsi – Ukraine: Aspects of Labor*, no. 2, pp. 10-16.
11. Petrova I. (1997) Zarobitna plata yak rehulyator rynku pratsi [Wages as a regulator of the labor market]. *Ukrayina: aspekty pratsi – Ukraine: Aspects of Labor*, vol. 3-4, pp. 22-25.
12. Diipers V. (2004) Tendentsiyi dynamiky produktyvnosti y oplaty sil's'ko-hospodars'koyi pratsi v Ukrayini [Trends of the dynamics of productivity and payment of agricultural labor in Ukraine]. *Ukrayina: aspekty pratsi – Ukraine: Aspects of Labor*, 6, 15-20.

13. Savkova S., Tereshchenko O. (2002). Shlyakhy vdoskonalennya normuvannya pratsi (za materialamy rehional'noho obstezhennya) [Ways of improvement of labor normalization (based on regional examination)] *Ukrayina: aspekty pratsi – Ukraine: Aspects of Labor*, 2, 41-45. (in Ukrainian)
14. Kulikov G. (2002). Pidvyshchennya real'noyi zarobitnoyi platy yak providnyy faktor motyvatsiyi pratsi v perekhidniy ekonomitsi Ukrayiny [Raising of the real wage as a leading factor of labor motivation in the transitional economy of Ukraine]. *Ukrayina: aspekty pratsi – Ukraine: Aspects of Labor*, 6, 12-17.
15. Shvets I.B., Chumachenko E.V. (2001). Ekonomichni osnovy formuvannya seredstv na vyplati, stymulyuvannya pratsi ta sotsial'noyi kompensatsiyi [Economic bases of formation of means of payment, stimulation of work and social compensation]. Donetsk NAN of Ukraine. Institute of Economics of Industry. (in Ukrainian)
16. Bohin D.P. (Ed.). (2001). Sotsial'no – ekonomichnyy mekhanizm rehulyuvannya rynku pratsi ta zarobitnoyi platy [Socio-economic mechanism of regulation of labor market and wage]. Kyiv: NAN of Ukraine. Institute of Economics [in Ukraine].
17. Pavlovskaya N., Anishina N. (1998). Vytraty na robochyy sylu: problemy, napolehlyvi vyrobnytstvo (na prykladi promyslovykh pidpryyemstv) [Workforce costs: problems, directions of solution (on the example of industrial enterprises)]. *Ukrayina: aspekty pratsi – Ukraine: Aspects of Labor*, 6, 20-23 [in Ukraine].
18. Boginya D.P. (Ed.). (2002). Motyvatsiya pratsi naemnykh pratsivnykiv. Monohrafiya [Motivation of work of wage-earners. Monograph]. Kyiv: Institute of Economics, National Academy of Sciences of Ukraine. (in Ukrainian)
19. Novikov A.F., Deitch M.E., Pankova O.V. (2013). Diahnostyka stanu ta perspektyv rozvytku sotsial'noyi vidpovidal'nosti v Ukrayini eks-pertni otsinky): monohrafiya [Diagnostics of the condition and prospects of development of social responsibility in Ukraine (ex-pert assessments): monograph]. Donetsk: NAN of Ukraine, Institute of economy of industry. (in Ukrainian)
20. Antonyuk V.P., Amosha O.I., Miller L.G. (2011). Lyuds'kyy kapital rehioniv Ukrayiny v konteksti innovatsiynoho rozvytku [Human capital of regions of Ukraine in the context of innovative development]. Donetsk: NAN of Ukraine. Institute of Industrial Economics. (in Ukrainian)
21. Sokolik M.P. (2011). Produktyvnist' ta oplata pratsi za parytetom kupivel'noyi spromozhnosti v Ukrayini ta inshykh krayinakh: porivnyal'nyy analiz [Productivity and payment work for parity of purchasing power in Ukraine and other countries: a comparative analysis]. *Ekonomika i prohnozuvannya – Economics and Forecasting*, 1, 85-103.
22. Diyal'nist' sub'yektiv velykoho, seredn'oho, maloho ta mikropidpryyemnytstva: statystychnyy zbirnyk (2016) [Activities of subject of large, medium, small and micro-enterprises: a statistical collection Kiev: TOV: "Vydavtinstvo "Consultant""]. (in Ukrainian)