

## **1.12. LABOR MARKET REGULATION MECHANISM: METHODOLOGICAL BASES OF FORMATION AND EFFICIENCY EVALUATION**

### **Abstract**

The current state of the labor market is in crisis, threatening Ukraine's national security, producing labor poverty, reducing economic activity of the working population and expanding economically forced labor, population stratification, imbalance between the labor market and the market of educational services, and, consequently, declining quality of labor potential and motivation for productive activity. All this in the near future will not only become the main negative factor on the path of economic growth, but will grow into a large-scale threat to the national interests of Ukraine.

The modern mechanism of labor market regulation is a combination of the market mechanism of self-regulation of economic processes and the institutional mechanism of regulation based on the activity of labor market infrastructure institutions. This approach involves the development of specific mechanisms and levers of the labor market regulation system. Measures to regulate the labor market should be based on ensuring economic growth, balancing the labor market, ensuring a fair distribution of labor results and increasing the level of labor capitalization, increasing production efficiency and labor productivity.

**Key words:** labor market, regulation, labor capitalization, labor poverty, National Minimum Wage and National Living Wage rates

### **Introduction**

The modern mechanism of labor market regulation is a combination of the market mechanism of self-regulation and state regulation of the labor market. Each country has its own national labor market model, the formation of which is influenced by the system of training and retraining, the growth of workers' skills, the system of filling vacancies and ways to regulate labor relations with the participation of trade unions. The combination and domi-

nance of certain factors allows us to distinguish three main models: the Japanese model of the labor market, the US model and the Swedish model. In addition, there are three main models of public employment policy: European, Scandinavian and American.

Labor market regulation is carried out in two directions: passive, when the object of attention is the labor force, which is actively looking for work, ie the developed measures are aimed mainly at the unemployed and their employment or retraining; active – aimed at preventing unemployment, ie the moves are preventive in nature. Regulatory influence has different nature: protective (for certain groups of the population); incentive (for administration, population); restrictive or stimulating (depending on the stage of economic development); directive; control; organized, other. The behavior of both employees and employers is regulated.

Thus, the mechanism of labor market regulation needs to be developed, which is inherent in the Ukrainian economy, including its specifics and state of development, able to ensure economic growth and social welfare, the studied market mechanisms of self-regulation need to be supplemented by state regulation. The peculiarity of modern research in the field of labor market regulation is that mostly scientists study the individual organizational and economic levers of labor market regulation, without setting and solving the problem of forming a single integrated organizational and economic mechanism of labor market regulation.

## **LITERATURE REVIEW**

### **1. Approaches of representatives of different schools to the levers of market regulation of the labor market**

We highlight the approaches of representatives of different schools to the levers of market regulation of the labor market [1; 2, c. 48–50]:

1. The classical model explains the causes of unemployment in the labor market and justifies the mechanism of market regulation through competition:

1) intensification of competition from the unemployed in conditions where labor supply exceeds demand for it. Employers have a choice of employees, and they can hire them at much lower

wage rates. At the same time, it will be reduced to such an extent that employers' wage costs will not be so low that it will be profitable to hire all employees who have offered their labor services. The labor market, in this case, will return to equilibrium;

2) increased competition between employers when the demand for labor exceeds its supply. Employees have the right to choose, and they offer their employment services only in exchange for higher wage rates. The effect of the competition is manifested until the employer's wage costs reach their maximum value and begin to cause losses, and there are no employers left in the market who would agree to pay employees wages higher than the market. The market equilibrium is re-established.

2. The neoclassical model by the labor market regulator determines the price of labor (wages), which regulates the supply and demand of labor forces. According to this concept, the labor market operates on the basis of price equilibrium: when demand exceeds supply, workers demand higher wage rates, and employers are forced to pay wages higher than market wages, establishing market equilibrium. Conversely, when supply exceeds demand, unemployment arises. In this case, employers hire workers at lower and lower wage rates, and the labor market returns to equilibrium. This theory excludes forced unemployment, the presence of the latter is due to its voluntary nature, as well as the desire of workers to the most profitable work.

3. The monetarist model is based on the need for a natural level of unemployment. According to this theory, vacancies arise due to structural disparities in the labor market due to changes in demand for labor with the introduction of new equipment that requires new knowledge, professions, higher qualifications. Criticizing the state's social policy aimed at regulating the labor market, monetarists emphasize that supporting the unemployed only increases unemployment. In addition, the market mechanism of self-regulation hinders trade unions, because as a result of supporting workers' demands to increase wages, entrepreneurs reduce industrial investment, and hence the number of new jobs and, consequently, unemployment becomes forced, its level begins to exceed natural levels. The main lever of balancing the labor market is the use of monetary

policy (central bank discount rate, the size of the required reserves of commercial banks in central bank accounts).

4. The institutionalist concept of changing the labor market situation is associated with the peculiarities of the dynamic changes in individual industries and occupational demographic groups. The conclusions of institutionalists are not based on macroeconomic analysis of the labor market, but on the analysis of occupational and sectoral differences in the structure of the labor force, wage levels.

5. Marxist theory emphasizes the peculiarities of the labor market in relation to general market patterns. Since the product “labor” in the process of labor creates value, and the value of all other resources is only transferred to the new value of labor, the labor market, generally subject to general market laws, has its own characteristics, as labor as a subjective factor of production, being product, can simultaneously actively influence the ratio of supply and demand and its market price. That is, the main regulator of the labor market is the labor force itself.

6. In the concept of Keynesians (JM Keynes, etc.), the main subject of labor market regulation is the state, which affects aggregate demand, ie production volumes and thus provides full employment in the labor market. J. Keynes proved the unreality of absolute wage flexibility, as employers’ attempts to reduce it cause adequate resistance from employees. According to this concept, the price is not a regulator of the labor market, and should be set externally by the state. In the labor market there is a so-called employment multiplier – the ratio between total and primary increase in employment. Based on this approach, it was argued that the initial increase in public investment creates the primary employment of a certain number of employees. The expenditures of these workers on consumer goods stimulate the development of production and, accordingly, secondary employment, ie the increase of jobs in industries that produce consumer goods. The production of more consumer goods requires the introduction of new equipment that stimulates the development of production of machinery and equipment, and, accordingly, increase the number of jobs in these industries.

## 2. Labor market self-regulation. «Economically free» and «economically forced» labor supply

According to market laws, there is always an inverse relationship between the price of labor and the volume of demand for it, and a direct relationship between the price of labor and its supply. The constant interaction between the elements of the labor market: demand, supply and price of labor under the influence of objective and subjective factors and is a mechanism of self-regulation of the labor market. Schematically, the interaction of supply and demand is shown in Fig. 1, where the curve D is the demand for labor, the curve S is the supply of labor, L is the volume of labor or the number of employees, W is the price of labor (wage rate).

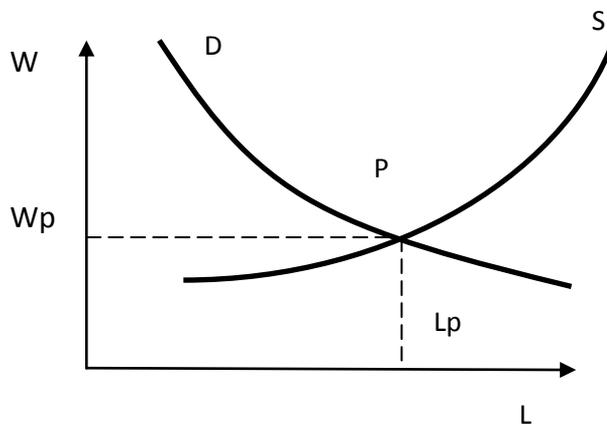


Figure 1.12.1 – Model of self-regulation of the labor market

Source: [2, p. 51].

However, it should be noted that in a crisis economy there are other patterns. If people have no income other than labor income, they are forced to work even when wages are too low, and to get the amount of money they need to survive, they increase the supply of labor. This applies to the increase in individual labor supply (secondary employment, reduction of consumption of paid services (transfer of this work to the family), providing the family with food

1.12. Labor market regulation mechanism: methodological bases of formation and efficiency evaluation

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and receiving additional income from work at home, in subsidiary farms); and increasing the total supply of labor (expanding the employment of women, even with young children, employment of young students, employment of retirees, the use of child labor).

In this case, in addition to the already considered segment of economically free labor supply ( $W_{min}W_1$ ), a segment of economically forced labor supply ( $W_{min}W_2$ ) appears on the labor supply curve. In this segment, the lower the level of wages, the greater the amount of economically forced labor supply (Fig. 1.12.2).

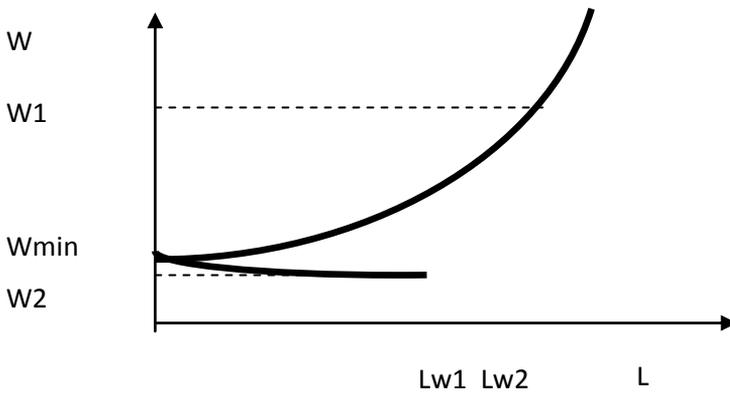


Figure 1.12.2 – “Economically free” and “economically forced” labor supply

Source: [3, p. 137].

In such circumstances, the law of labor supply, which proves the direct dependence of aggregate labor supply on its market price, needs to be supplemented by the condition «in the presence of unlabored (passive) income by participating in other factor markets or in a high level of social protection systems». The price of the labor market reduces the supply of labor only in the case of economically free labor. If wages are the only source of livelihood, its reduction leads to an expansion of labor supply due to the additional workload of employees and entry into the labor market of traditionally economically inactive population, to the formation of a segment of economically forced labor. In modern conditions of national economic development, it is realized through the reduction

of economic activity of the able-bodied population that realizes the labor force as the factor of business and the markets of the capital, real estate, and the earth enjoys advantages of labor migration. Relevant opposite directions of development are characteristic of the urban-rural segments, which is explained by the different degrees of accessibility and development of factor markets.

### **Finding and discussion**

#### **1. Influence of non-price factors on labor market demand**

In addition to wages, the volume of aggregate supply is influenced by non-price factors, among which the main ones are: the number of labor sellers, which is characterized by the number of the economically active population, sex and age structure of the population (+N); population migration (population growth due to migration flows (+M), reduction (-R)); a level of social welfare, development of the social protection system (-SP); development of the financial market, real estate market and property, which allows people to use nonlabored (passive) income (-PI); the level of personal income taxation (-T); set the duration of the working day, week, month, year (-D); national traditions, such as restrictions on women's labor (-NR); the activity of trade unions on the labor market (+, - TU). That is, the total labor supply ( $S_c$ ) can be described by the function:

$$S_{lm} = f(+N; +M; -R; -SP; -PI; -T; -D; TU). \quad (1.12.1)$$

Accordingly, demand is also affected by other, non-price factors in addition to the price. To determine them, we use the conclusion of the supporters of the Keynesian theory that there is a direct relationship between the volume of aggregate demand in the labor market (DI) and the level of aggregate demand in the country. That is,  $D_{lm} = f(D)$ .

Given the structure of aggregate demand [4, p. 55], the demand function in the labor market can be represented as follows:

$$S_{lm} = f(C + I + G + A), \quad (1.12.2)$$

where C – consumer demand, ie effective household demand for consumer goods; I – investment demand (demand of entrepreneurs

for means of production to restore worn-out capital and increase new capital); G – government demand for goods and services for the production of public goods and public investment; A – demand abroad for net exports, provided that demand for imports is included in the previous three components. Establishing such a connection allows us to identify four areas of balancing the labor market in terms of increasing demand for it: 1) increasing the solvency of population demand; 2) increasing investment demand; 3) intensification of state activity in the market of goods and investments; 4) ensuring positive net exports and its maximization, optimization of the structure of export-import relations.

Components C, I, G include the demand for the relevant subjects of the national market for foreign goods. A significant volume of imports proves that the actual volume of national production lags far behind the potential and the commodity market is unsaturated with domestic goods. This is evidenced by the data of the Report on the Competitiveness of Ukraine. The size of the market offers many opportunities to Ukrainian business. A large domestic market allows businesses to enjoy economies of scale. In addition, Ukrainian business also serves a large number of export markets, although Ukraine has not yet reached the size of the market of export-oriented countries [5].

Therefore, the strategy of replacing imports with own production is a way to ensure economic growth. For the labor market, this is of direct importance, because according to Oaken's law, exceeding the unemployment rate by 1 % over the natural unemployment rate reduces the real volume of national production by 2,5 %. An increase in national production leads to a reduction in unemployment and a corresponding increase in employment. The ratio of imports and GDP allow us to determine the potential for expansion of national production at 45,6 % [6]).

That is, the national economy has significant growth reserves and opportunities to increase employment at 18 % (45,6 / 2,5). This figure is undoubtedly indicative, because Oaken gained his empirical dependence in the early '60s on US data, for other countries and other times, the value of the coefficient of empirical sensitivity may be different. However, obtaining such a figure and comparing

it with the actual unemployment rate in Ukraine, allows us to conclude that using the growth potential, the national economy can not only get rid of such a phenomenon as unemployment but also get labor market conditions, which raises the issue of labor shortages, labor conservation, intensification of production.

In our opinion, the passivity of the labor market regulation policy and its mostly short-term nature is explained by the fact that the unemployment rate in Ukraine was close to the level of natural unemployment (6 %). But this value of the natural rate of unemployment was derived for the '60s in the United States, and depending on the characteristics of the national economy and the stage of the economic cycle, this figure may have different values. In addition, there are different concepts for determining the natural rate of unemployment in quantitative terms: 1) the natural rate of unemployment – is its value at which wages and inflation are stable or at acceptable levels; 2) the natural rate of unemployment – this is its value at which the number of unemployed jobs is equal to the number of unemployed; 3) the natural rate of unemployment is such a level of unemployment at which any increase in demand for labor does not cause a reduction in the number of unemployed; that is, it is the level of unemployment at which it is basically all voluntary.

Unemployment of frictional and structural type exists in any period of economic development, so the term natural unemployment rate can be defined as the unemployment rate that corresponds to the situation of macroeconomic equilibrium. The concept of natural and actual unemployment is illustrated by the Beveridge curve (Fig. 1.12.4), which characterizes the relationship between unemployment and the number of vacancies and vacancies: at any level of unemployment there are always vacancies (non-prestigious jobs, jobs, and vacancies, the structure of which does not match structure and quality of free labor); similarly, even if there are a large number of vacancies, there are unemployed, so the curves, approaching the axes, never touch them.

The Beveridge curve is represented by curve A. The actual unemployment rate is  $U_x$ . The bisector of the right angle OZ intersects the curve A at the point Y, which corresponds to the unemployment  $U_y$ . In this case,  $U_y = V_y$ , ie the number of

unemployed corresponds to the number of vacancies. This means that the natural rate of unemployment for economy A is equal to  $U_y$ . And if the actual level of  $U_x$  exceeds the equilibrium  $U_y$ , then such excess is explained primarily by cyclical unemployment.

The position of the point of actual unemployment on the Beveridge Curve characterizes the tension in the labor market at the moment. The ratio of the number of unemployed to the number of vacancies is called the coefficient of tension or the load on the vacancy:

$$K = \frac{U_x}{V_x}. \tag{1.12.3}$$

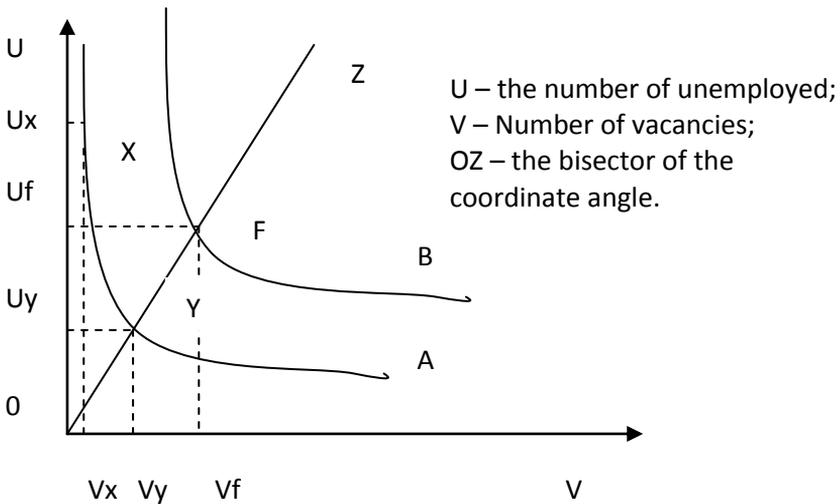


Figure 1.12.3 – Beveridge curve

Source: [7, p. 97].

At the equilibrium point,  $K$  is equal to one. If  $K$  increases, then cyclical unemployment increases in the first place. The change in the economic situation causes the Beveridge curve to move, for example to position B, where there is a higher level of natural unemployment –  $U_f$  and more vacancies –  $V_f$ . This means that the economy has significant structural changes. The value of the load factor suggests that the actual unemployment rate exceeds its natural level three times as of 2019 (Fig. 1.12.4).

The effect of the ratio of labor costs and capital on labor demand, in the long run, is explained by the effect of two effects: the effect of scale and the effect of substitution. The effect of scale occurs when a change in the value of the indicator that characterizes the factor leads to a change in labor demand.

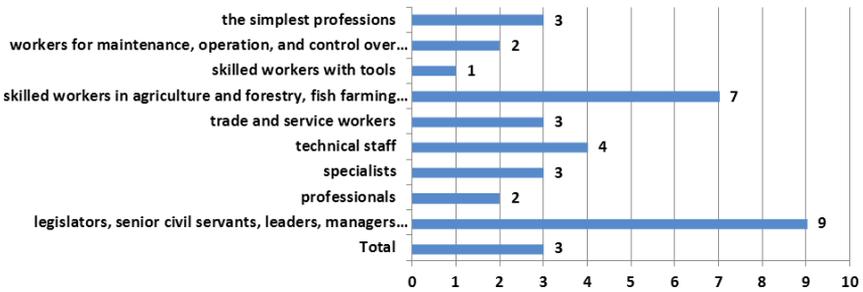


Figure 1.12.4 – A load of registered unemployed per vacancy by occupational groups, 2019

**Note.** Built by the author according to the state employment service.

The substitution effect is characteristic when labor represented by a certain number of employees is replaced under the influence of the factor of capital. With a change in demand for goods and a corresponding increase in production, the effect of scale will increase the demand for labor. And vice versa (Fig. 5).

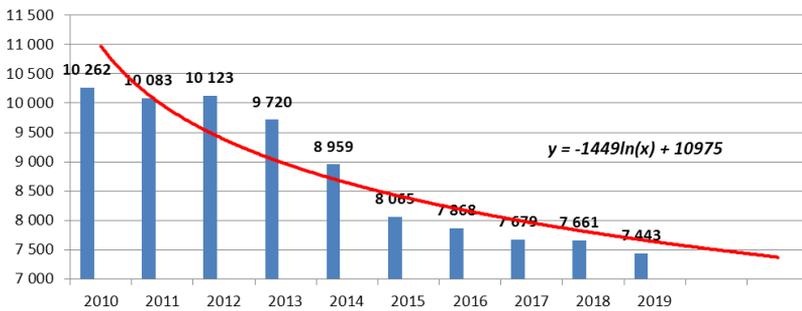


Figure 1.12.5 – Number of full-time employees in Ukraine: 2010–2019

**Source:** built by the author on the basis of State Statistics Service of Ukraine open data [8].

When the supply of capital and, accordingly, the price of capital, the effect of scale is manifested as follows: lowering the price of capital lowering the cost of lowering the price of goods increasing demand for goods increasing production increasing labor demand. In this case, at the same level of wages, the volume of labor demand will be higher, ie there will be a shift of the labor demand curve to the right.

At the same time, the substitution effect can also act, when when the price of capital decreases, entrepreneurs will replace labor with capital-intensive technologies, which will lead to a reduction in the demand for labor. As a result, at the same level of wages, the volume of labor demand will be lower, ie there will be a shift of the labor demand curve to the left (Fig. 1.12.6, b).

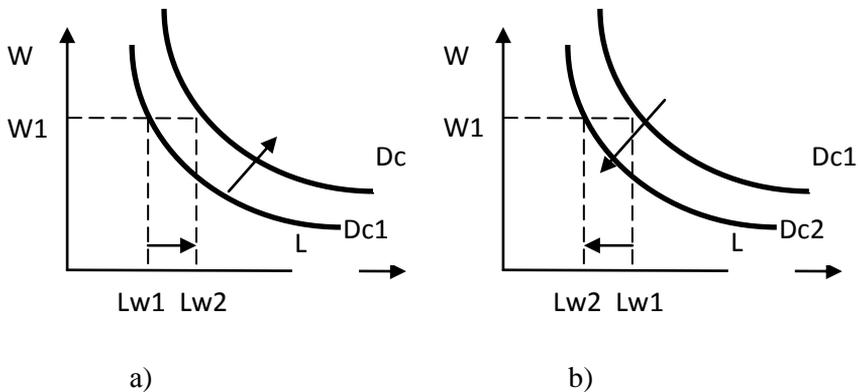


Figure 1.12.6 – Influence of non-price factors on labor market demand: a) increase in labor market demand; b) reducing demand in the labor market

Source: [2, p. 168].

When the price of labor changes – the level of wages, the effect of scale acts as follows: wage growth increase in the cost of goods prices increase in demand for goods decrease in production decrease in demand for labor.

The substitution effect will be effective when entrepreneurs start introducing labor-saving technologies as wages rise, which will also reduce the demand for labor. In this case, the effect of scale and the effect of substitution act in one direction – in the

direction of reducing the demand for labor with increasing levels of its payment. That is, when the price of labor increases, the movement occurs along the demand curve, the curve itself does not move.

In our opinion, the direction of the impact of wages on labor market demand depends on the phase of the country's economic cycle and its export-import balance. Thus, as we approach the potential level of production, wage growth will lead to inflation, ie rising prices. In conditions of insufficient demand for labor, underemployment, when the market price of labor does not ensure the normal solvency of the population, and the bulk of it is below the poverty line, rather, in our opinion, the effect will be the impact of wages on the solvency of the population. This can also be explained by the effect of scale: rising wages increase purchasing power increase demand for goods increase production increase demand for labor.

However, in the context of globalization, market effects must be adjusted by the state. After all, the effect of scale can have an effect on increasing demand not in the national labor market, but in the labor markets of countries that produce imported goods. Then the effect of scale within the national economy does not work: rising wages increase purchasing power increase demand for imported goods increase foreign production increase demand for labor in other countries.

The influence of foreign economic relations, capital market, and resource market on the market of goods and services determines the need for their subordination to the labor market. Because it is labor that causes demand in the resource market, demand in the capital market and derivative demand in the market of goods and services. It is in the labor market that it is possible to regulate the formation and use of non-labor income and earnings abroad. After all, the formation of non-labor income is determined by the efficiency of labor in the market, which brings profit, interest, and funds for redistribution for social purposes to the budget. Favorable measures in the labor market can direct non-labor and earned funds abroad not directly to the market of goods and services, but in the production process.

**2. Labor market and the capital market interaction.**  
**Labor market functions**

Regularities of the relationship between the labor market and the capital market and the market of goods and services are characterized by the laws of Hicks-Marshall or the laws of derivative demand [9, p. 41–42].

The first law: a reduction in wages and a corresponding reduction in production costs and the cost and price of final products, leads to an increase in consumer demand, expansion of production, and hence to increased employment. The direct elasticity of demand for wages will be higher the price elasticity of the product.

The second law: the higher the value of the coefficient of substitution of one factor for another, the more noticeable is the employer's response to rising labor costs (if workers are easily replaced by machines, wage growth will lead to layoffs, if a technological replacement is impossible – wage growth will not reduce demand to work).

The third law: the direct elasticity of labor demand for wages is directly proportional to the elasticity of supply of other factors of production, ie the level of use of other factors can be increased without a significant increase in prices for them. If the specifics of production are such that the share of wages is much less than the share of material costs, then the increase in wages will not cause a significant reduction in demand for labor.

The fourth law: the direct elasticity of demand for labor on wages is directly proportional to the share of costs for this category of labor in total production costs. The elasticity of supply shows how many percents of the volume of capital factors offered on the market increases when its price increases by 1%, ie how much more expensive additional machines and equipment will cost when replacing an employee with capital.

In addition to direct elasticity in economic research also use the indicator of cross-elasticity of labor demand. This indicator determines how sensitive the demand for labor is to the price of capital. The result of the value depends on how these factors are correlated: they are complementary (complement factors) or interchangeable (substitute factors). The technique only comple-

ments the work of a highly qualified person and can replace the work of a low-skilled specialist: if a farmer can easily replace workers with a shovel with a minitractor (substitute), it is impossible to completely replace a surgeon (complement). The value of cross-elasticity depends on which effect is stronger when prices rise – the effect of scale or the effect of substitution. For example, an increase in the wages of low-skilled workers will have the effect of replacing them with high-skilled workers, if the wages of the latter and the productivity of both categories are unchanged. Then production costs will increase and output will decrease. This means that as a result of the substitution effect, the employment of more skilled workers should increase, and as a result of the effect of scale, it should decrease.

The functioning of the labor market is subject to the laws of commodity production (supply and demand, value, competition), which is expressed in the performance of certain functions, namely:

- social division of labor – the separation of employers and employees by professions, specialties, types of economic activity and regions;
- information function – the market accumulates information on hiring conditions, wages, quality of labor;
- intermediary function – establishes a relationship between employers and employees to meet mutual interests and needs for favorable terms of purchase and sale of goods ‘labor’;
- pricing function – sets the equilibrium price of labor;
- incentive function – stimulates to improve the level of professional knowledge and skills to increase competitiveness in the labor market;
- regulatory function – pours on the formation of territorial and sectoral proportions of social production, facilitating the movement of labor from one region and type of economic activity to another;
- social – helps to select the optimal type of work depending on the development of personal abilities and business qualities, professional skills, etc.

In addition, Bilkov V. G. highlights the following functions of the labor market:

1) rational distribution of labor by individual enterprises, industries and regions in accordance with demand;

2) selective, which consists in the choice of labor in accordance with supply and demand, taking into account the professional and qualification characteristics of the labor force;

3) distributive – associated with the distribution of income of workers based on the ratio of supply and demand in the labor market [10, p. 10].

Among the main functions of the labor market in the transitional period are:

- determining and maintaining optimal ratios between demand (consumption) and supply of labor in the labor market;

- stimulating the effective functioning of labor resources by establishing its socially normal value in the labor market and developing specific government measures to stimulate its use at the macro and micro levels;

- development of the general and professional level of employees;

- reconciling the interests of employees and employers by concluding and clearly implementing relevant agreements based on the development of social partnership;

- regulation of competitive relations and the formation of the economically sound employment structure in accordance with national and regional labor needs [11, p. 10–11].

### **3. Organizational and economic mechanism of labor market regulation (OEMLMR)**

Among the functions that the labor market cannot perform due to self-regulation, the main ones are the following: determining the strategic orientation of the development of national labor potential in accordance with the strategy of socio-economic development of the country; appropriate organization of professional training and retraining; support for socially vulnerable groups; development of social infrastructure; equalization of development of separate regions, etc. The need to address such issues is justified by their exceptional importance in the system of achieving economic security and economic growth of the country. Therefore, it is impractical to limit oneself only to market self-regulators in the sphere of social and labor relations. The market mechanism alone

cannot provide full, productive and freely chosen employment, as required by the Constitution and the Law of Ukraine on Employment of the Population of Ukraine [12; 13, p. 43]. This can be achieved by a targeted impact on the labor market through an appropriate mechanism that will ensure the use of national labor potential to achieve national economic growth and social well-being. Regarding the definition of the category ‘mechanism’, there are also different views in science (Table 1.12.1).

**Table 1.12.1 – Approaches to defining the category «Mechanism»**

Category	Definition
Mechanism	device or appliance in which or by means of which... movements здійсню are carried out
	a system, a device that determines the order of any activity
	the internal structure of the system of anything, such as the state control mechanism
Control mechanism	corresponding to each historical epoch the way of the organization of management of social production with the forms, methods, means inherent in it
	means of resolving contradictions of a phenomenon or process, consistent implementation of actions based on the basic principles of goal orientation, functional activity using the appropriate management methods and aimed at achieving a certain goal
	an integral part of the management system that provides influence on the factors on which the result of the object depends; category of management, which includes management goals, elements of the object and connections that are influenced, actions in the interests of achieving goals; methods of influence; material and financial resources of management, social and organizational potentials
Mechanism of public administration	the set and logical relationship of social elements, processes, and patterns through which the subject of public administration “covers” the needs, interests, and goals of society in management influences, enshrine them in its management decisions and actions and practically implements them based on public power

1.12. Labor market regulation mechanism: methodological bases of formation and efficiency evaluation

Continuation of the table 1.12.1

Category	Definition
Mechanism of public administration	<p>a set of legislative, legal, organizational, economic, social, informational, scientific and personnel elements, on the complex functioning of which the implementation of state and regional policy is based</p> <p>organizational basis of construction (structural-organizational approach), and its dynamics, real functioning (structural-functional approach)</p> <p>a system of economic, motivational, organizational, political and legal mechanisms that ensures the coordination of the interests of public administration participants who interact</p> <p>system of elements: a) the general system of public administration in the field, industry, which includes the statute and functions of special and other bodies operating in a particular field, industry (in our case – in the field of labor market regulation); b) a set of administrative and legal regulators specific to this industry; c) set, standard of necessary legal acts and other regulatory documents; d) the mechanism of state control and supervision; e) grassroots organizations – objects of management; f) information support; g) the degree of participation of citizens and their associations</p>
socio-economic mechanism of employment regulation	system of social and economic methods, measures and organizational forms, covering the whole set of features of labor potential, the implementation of which ensures its effective functioning
employment management mechanism	a set of economic forms and tools, as well as organizational structures for the implementation of human abilities to work

Source: [14].

Taking into account the above approaches to defining the category of mechanism and management, as well as on the conclusions made in previous works of the author, the organizational and economic mechanism of labor market regulation of Ukraine is defined as a set of legal, economic, social and organizational principles of expanded reproduction, its effective implementation

with the provision of national growth in priority areas for the country in terms of capitalization of labor with an incentive mechanism for its differentiation (OEMLMR) (Fig. 1.12.7).

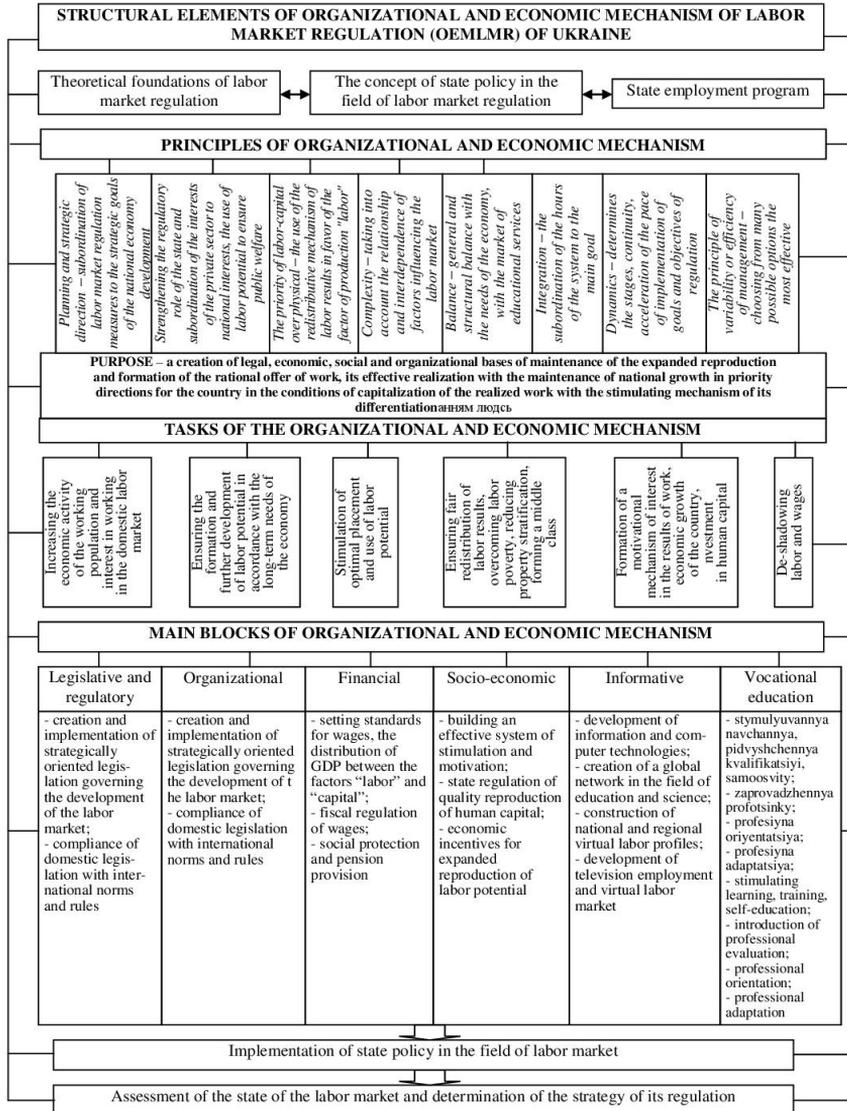


Figure 1.12.7 – Organizational and economic mechanism of labor market regulation

Source: developed by the author.

**5. Labor capitalization and labor poverty as opposite results of the national model of OEMLMR**

Using the well-known definition of capital – value that brings additional value, as well as defined in previous works [15, 16] approaches to the definition of labor capital, we present the conditions of capitalization of labor in relation to the owner of labor.

Based on the fact that man is a biosocial being, and his life and ability to work requires certain material costs, as well as his age in general and working-age in particular, is finite, labor costs should include the cost of reproduction of labor in the current and future generations. That is, minimum wage standards should provide twice the subsistence level (for simple reproduction of labor). If the national economy does not achieve this level of wages, we can talk about the dominance of the model of labor poverty. Labor poverty is a socio-economic phenomenon in which labor incomes do not provide the minimum needs for the simple development of labor potential in the next generation and the development of labor potential of the modern generation.

With the minimum wage at the level of 2.5 subsistence minimums (European standard) provides expanded reproduction of labor potential (ERLP). If the minimum wage standards exceed the cost of labor potential for expanded reproduction, the model of labor capitalization is implemented (Fig. 1.12.8).

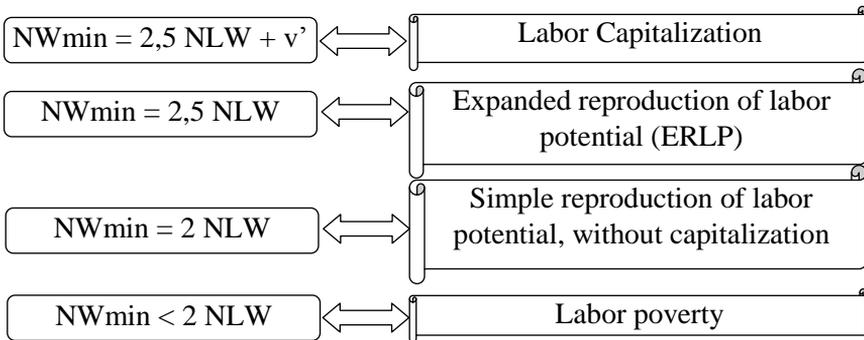


Figure 1.12.8 – Variants of national models of realization of labor potential on the labor market

**Note:** NW min – National Minimum Wage; NLW – National Living Wage rate, v' – additional cost.

**Source:** author view/

The level of labor capitalization is determined by the formulas:

$$LLCi = \frac{v'}{S}, \quad (1.12.3)$$

$$LLCn = \frac{v'}{NWFE}, \quad (1.12.4)$$

where  $LLCi$ ,  $LLCn$  – the level of labor capitalization at the individual and national levels, respectively;  $S$  – average salary of the employee;  $NWFE$  – the wage fund of employees in the national economy.

The organizational and economic mechanism of regulation of the labor market of Ukraine has three levels:

1. national level – determination of strategic directions of labor market development in accordance with strategic programs of national economic development, development and implementation of the mechanism of their realization;

2. interregional level – balancing and coordinating the development of regional labor markets;

3. regional level – ensuring the most effective use of labor potential in accordance with regional development programs.

At all levels of implementation of the organizational and economic mechanism of labor market regulation, its purpose is to ensure the maximum level of labor market balance and labor capitalization at the level of the carrier, enterprise, state.

The purpose of the organizational and economic mechanism of labor market regulation of Ukraine at the national level, in accordance with the current state and prospects of the national labor market of Ukraine, is to ensure expanded reproduction of labor market supply with improving its quality and competitiveness, as well as ensuring its implementation with maximum efficiency serves to maximize the level of labor capitalization.

The purpose of the organizational and economic mechanism of labor market regulation of Ukraine at the interregional level is to ensure effective interregional proportions of labor market development based on the development of the system of interregional

migration, a balanced policy of regional development. To assess the effectiveness of the organizational and economic mechanism of labor market regulation in Ukraine, it is proposed to use a system of approaches that includes a comparative dynamic model, cluster analysis, integrated assessment, multifactor linear modeling, which will be presented in the following sections.

The allocation of regional and interregional levels of organizational and economic mechanisms of labor market regulation is determined by a set of administrative, legal, and socio-economic prerequisites. In this case, the administrative and legal preconditions determine mainly the allocation of the regional level of such a mechanism, and socio-economic – interregional.

Administrative and legal preconditions for the allocation of the regional level of labor market regulation, determined by the administrative-territorial division, allocation of different levels of government, which receive the authority to manage territories – laid down by the Constitution of Ukraine, which determines that the territorial structure of Ukraine is based on unity and integrity, a combination of centralization and decentralization in the exercise of state power, the balance of socio-economic development of regions, taking into account their historical, economic, geographical and demographic characteristics, ethnic and cultural traditions [12, p. 132].

Socio-economic preconditions for the allocation of the interregional level of the organizational and economic mechanism of labor market regulation are determined by the uneven distribution of the country's productive forces, the corresponding features of the territorial division of labor, the structure of a gross regional product, labor productivity, and cultural characteristics.

In modern conditions, regional governance acquires a new quality – the integration of all its species as a whole within the region in order to ensure the regional integrity of socio-economic development and economic balance. The purpose of the organizational and economic mechanism of labor market regulation (OEMLMR) is to ensure maximum efficiency of the labor market as a system. If we use the provisions of the latest concepts of the regional economy, namely, a set of four main paradigms of the

region: region – quasi-state, region – quasi-corporation, region – society and region – market, the system approach will identify the following areas of evaluation of OEMLMR: 1) the population of the region; 3) from the point of view of the business sector; 4) from the point of view of the region as an integral administrative-territorial and socio-economic territory of the country [17, p. 21].

From the standpoint of this approach, OEMLMR should comprehensively provide:

1) from the point of view of society – the population of the region: the maximum level of economic return of regional labor; the maximum level of ensuring the minimum needs of the population employed in the region;

2) in terms of the development of market relations in the field of labor: the maximum level of realization of the existing labor potential of the region; the maximum level of balance of supply and demand in the labor market of the region;

3) from the point of view of the business sector: maximum productivity of employees; maximum regional profitability of employees;

4) from the point of view of the region as an integral administrative-territorial and socio-economic territory of the country: the maximum level of coverage of regional budget expenditures by the results of labor employed in the region.

Such a comprehensive approach to assessing the effectiveness of labor market regulation can be used at the national level. It will be useful to use the approaches of leading domestic scientists to take into account the integrated action of functional, sectoral, territorial, and supply subsystems [18, p. 101]. If the functional subsystem includes information and consulting activities, career guidance, vocational training, employment, business innovation center, the support subsystem provides technical, informational, economic, and regulatory support [19, p. 12].

## **6. Segments of the labor market of the region on the efficiency of labor potential**

The effectiveness of the labor market regulation mechanism depends on the objectivity of determining its specific segments. The segmentation of the labor market is “the division of jobs and

*1.12. Labor market regulation mechanism: methodological bases of formation and efficiency evaluation*

workers on the basis of unifying features into relatively stable and closed sectors that limit labor mobility by its borders” [20, p. 141]. The main differences between classification and segmentation approaches in the labor market are the following: 1) classification is based on identifying the action of a certain factor, segmentation – on identifying the complex impact of many factors on the labor market; 2) the classification reflects the process of differentiation of the labor market on a certain basis, segmentation focuses on modifications of the main elements of the essence of the labor market, reflecting the action of both internal and external factors; 3) classification is a method of studying and analyzing the labor market, segmentation is part of the strategy of labor market regulation [21, p. 108]. The most common in economics is the segmentation of the labor market into primary and secondary (Table 1.12.2).

**Table 1.12.2 – Criterias for segmentation of the labor market**

<b>Segmentation criterion</b>	<b>Primary labor market</b>	<b>Secondary labor market</b>
The method of including labor in the labor process	Long-term employment contracts, normal or irregular working hours, high trade union support. Stability of employment	Short-term employment contracts, temporary contracts and agreements; part-time work; seasonal, temporary work; low level of trade union support
Method of labor coordination	High share of functions of self-regulation, self-management, predominance of creative elements, high responsibility for final results of work. Employment in the main areas of work. Low degree of rationing of working time and labor. Participation in production management at the enterprise	Execution of executive, auxiliary functions. Lack of elements of self-regulation. High external control. Low responsibility for the end results. High degree of rationing of working time and labor. Impossibility to participate in management

*Continuation of the table 1.12.2*

<b>Segmentation criterion</b>	<b>Primary labor market</b>	<b>Secondary labor market</b>
Method of labor evaluation	High level of wages. Dependence of wages on the position, level of qualification, degree of responsibility. Focus on the individual nature of remuneration, which depends on the performer. Combination of wages with other forms of income: dividends, profit sharing	Low wages. Dependence of wages on production, discipline. Focus on collective forms of remuneration. Restriction of wages by payment for work performed

**Source:** [21, c. 109–110].

Representatives of the primary and secondary labor markets differ in the form of labor organization. The primary market includes entrepreneurs, people engaged in highly qualified and highly paid work, with a high level of general and special training, stable employment guarantees, career prospects. The content of work is dominated by creative and managerial functions. The secondary labor market includes low-skilled, seasonal workers, socially vulnerable groups, part-time workers with low incomes. It is characteristic that competition unfolds within segments, while intersegmental competition is absent.

Analysis of primary documents of pre-revolutionary Russia on the example of Poltava province allows us to draw conclusions, the segmentation of the labor market into so-called “primary” (with prestigious jobs) and “secondary” (with jobs that do not require high skills, low wages, unstable nature) was already available during the formation of the labor market. That is, the process of segmentation of the labor market is not derived from the process of its formation. The formation of the labor market took place in two opposite segments: the formation of the secondary labor market as a mechanism for obtaining livelihoods of landless and landless

peasants, and the formation of the primary labor market as a mechanism of enrichment (merchants and diggers) and social prestige (employees) of the wealthiest peasants. The poor and low-income peasants were forced to sell their labor because they had no other means of subsistence. They entered the secondary labor market. At the same time, there were such types of work as trade and service, which tended mainly to farms with above-average security [139, p. 228].

**Table 1.12.3 – Dependence of the type of professional occupations of the population of Poltava province on providing their farms with land, the end of the 19th century – the beginning of the 20th century**

		Land supply		
		High	Medium	Low
Income from crafts	High	bristles excavators	blacksmiths carpenters	stove-makers
	Medium	chariots tailors	carpenters coopers combers	day laborers Beaters shoemakers locksmiths Sheepskin-makers
	Low	weavers	knitters potters carriers weavers	rope makers

Source: built by the author on the basis of sources [22–24].

Factors influencing the development of this labor market include, firstly, the prestige and satisfaction of moral needs, and, secondly, the possibility of obtaining additional income. Accordingly, the provision that the condition for the formation of the labor market is the need to obtain a livelihood, rightly apply only to the secondary labor market. In our opinion, the mass separation of labor from the means of labor is not characteristic of

the stage of formation of the labor market, but for a certain stage of its development, which corresponds to the industrial stage of economic development.

Along with the segmentation of the labor market into primary and secondary, during its formation, such a form of employment as self-employment developed. A factor in the development of the labor market in the field of self-employment can be determined as the need to obtain livelihoods of landless and landless peasants, and the possibility of additional earnings and satisfaction from the use of professional knowledge.

That is, the generally accepted thesis that the condition for the formation of the labor market is “the lack of a person has everything necessary to run their farm as a source of livelihood [25, p. 42]”, can only apply to the secondary labor market, and partly, self-employment. Whereas the condition for the formation of the primary labor market was the possibility of additional earnings and satisfaction from the use of professional knowledge.

**Table 1.12.4 – Types of professional occupations and their distribution on the farms of Poltava province, 1910**

Types of professional occupation	Number of farms			
	professional occupation is the only source of subsistence	professional occupation together with agriculture	total, units	in % to the total
1	2	3	4	5
Craft	26 590	19 687	46 277	25,5
Trade and fishing	7 281	3 306	10 587	5,8
Service	14 127	4 241	18 368	10,1
Transportation	2 634	2 435	5 069	2,8
Labor	1 238	75	1 313	0,7
Other classes	12 618	2 298	14 916	8,3
Total	64 488	32 042	96 530	53,2
Zazhon	10 363	4 465	14 828	8,2

1.12. Labor market regulation mechanism: methodological bases of formation and efficiency evaluation

Continuation of the table 1.12.4

1	2	3	4	5
One-day and temporary earnings	43 078	26 780	69 858	38,6
Total	53 441	31 245	84 686	46,8
Together	117 929	63 287	181 216	100

Source: [24, p. 115].

The peculiarity of the segmentation of the modern labor market is that for him, according to Professor Petrova IL, is characterized not by a two-sector, but “triple” model of segmentation, with approximately the same number of formal sectors, informal employment and their combination (Table 1.12.5).

**Table 1.12.5 – Segmentation model of the Ukrainian labor market in transition**

Segment	Criteria for segmentation		
	the method of including labor in the labor process	method of labor coordination	method of labor evaluation
1	2	3	4
1	Employment on the basis of long-term contracts or agreements; work at your own company, or one where you have your share	The focus of labor to meet the needs identified by the market. The predominance of management functions in the activities, the presence of elements of self-government. High competitiveness	High level of income. A combination of different forms of income: wages, interest, dividends, participation in the company’s profits
2	Sufficient employment guarantee based on long-term contracts, agreements, licenses, and patents.	Employment is governed by the ratio of supply and demand for products or services of this contingent. Competition in the	The level of income is above average. The stability of income is determined by the stability of the

*Continuation of the table 1.12.5*

1	2	3	4
2	High status of employees at the enterprise. Protection against large-scale layoffs	market of goods and services and, accordingly, in the labor market. Competitiveness based on high professionalism and quality of products and services	enterprise and the demand for labor services
3	Employment is unstable. Possibility of unemployment and transition to another job. Staff turnover. Often work part-time on short-term part-time deals elsewhere	Demand for this contingent is declining, employment is supported by government subsidies. The competitiveness of the segment is low. In the process of work often perform ancillary functions	Low wages. Application of state benefits and assistance
4	Unstable employment, part-time work, short-term employment agreements, difficulties in employment, discriminatory restrictions on employment	There is no demand for the labor services of these workers. Regulation of their movement in the labor market should be carried out with the participation of the state	Low volatile incomes.
5	Simultaneous participation in the formal and informal economy	Coordination based on market regulation mechanisms, government intervention and "black market laws"	Combining income from official employment with additional sources of illegal income

1.12. Labor market regulation mechanism: methodological bases of formation and efficiency evaluation

Continuation of the table 1.12.5

1	2	3	4
6	Formation of informal groups for the purpose of illegal business	Group nature of activities regulated by “black market laws”. Lack of state control	High returns are associated with risk, in violation of applicable law
7	Self-employment in various forms of manifestation: personal subsidiary farming, tutoring, economic tourism, currency operations, etc.	Individual nature of the activity. Work at own risk	Income is sufficient to survive in transition. Lack of social protection

Source: [21, p. 137–138].

Western literature also presents approaches to segmentation, one of which is the approach of G. Standing, which distinguishes five segments of the labor market: 1) a small but stable segment of highly qualified managers with high social status; 2) personnel workers and employees who compete with each other in the labor market, but have employment guarantees; 3) manual workers who, as a result of structural adjustment, suffer from a decline in production; 4) workers in labor-intensive industries with low productivity, whose professions are redundant in the labor market; 5) the most vulnerable categories of workers: young people, the elderly, people with physical and mental disabilities, the chronically unemployed.

The author’s scheme of segmentation of regional labor markets for the realization of labor potential and ensuring the capitalization of labor in the region is shown in Fig. 1.12.9.

According to this approach, the labor market should distinguish eight segments that characterize the realized and unrealized labor potential of the region, the wage, and free labor market, the impact of income on the quality of labor potential, as well as segments of capitalized and sold without capitalization. Segments of the labor market, the result of labor relations, characteristics of these relations, and the directions of regulation of each segment are given in table 6, where LI – labor Income, CLO – Costs of Labor Owner, SA – social assistance.

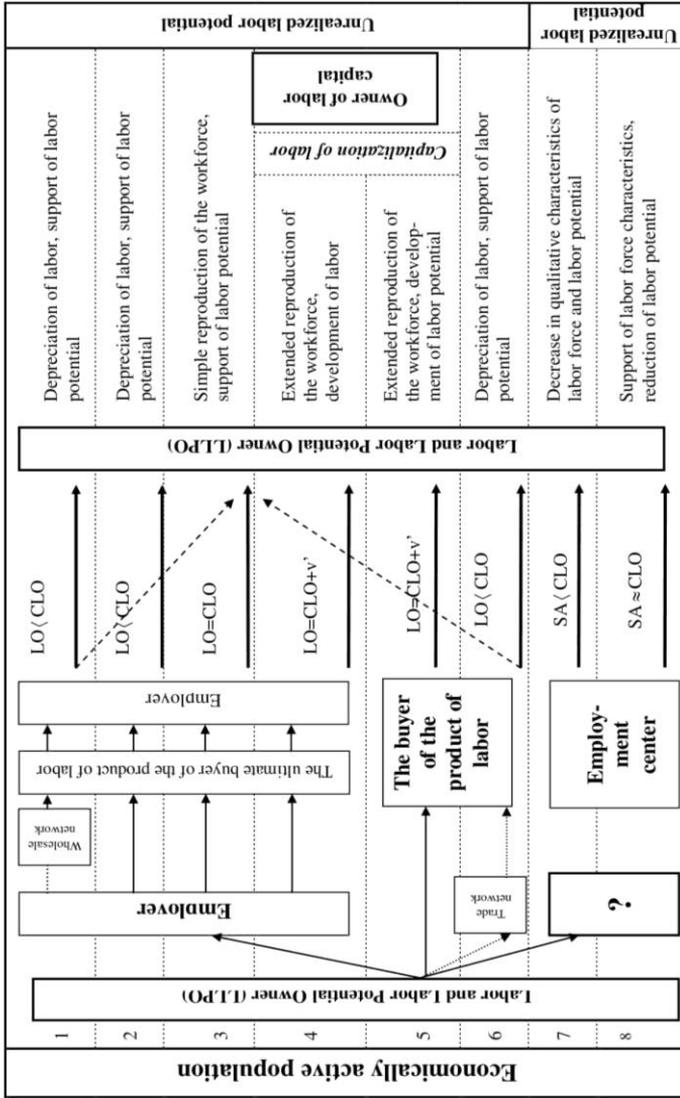


Figure 1.12.9 – Segments of the labor market of the region on the efficiency of labor potential

Source: author view.

**Table 1.12.6 – Priority areas and tools for regulating labor relations for each segment of labor market**

№	Subjects of labor relations	The result of labor relations	Priority areas and tools for regulating labor relations in the labor market		
			Directions	Instruments	
				organizational	economic
1	2	3	4	5	6
1	OLLP – employer	Depreciation of labor, support of labor potential Simple reproduction of the workforce, support of labor potential	Reduction of the trade and intermediary chain, bringing the producer closer to the consumer	Creation of own trade network of producers, association to regulate the structure of the market price of the product of labor	Tax differentiation for producers and intermediaries, the abolition of VAT on the initial sale of finished products
2	OLLP – employer	Depreciation of labor, support of labor potential	Regulation of labor income. Improving the regulation of VFRP	Development of social partnership, signing of general, branch, regional agreements, and collective agreements	Establishing the size of the minimum labor income at a level that ensures the capitalization of labor, ensuring microeconomic flexibility of labor costs
3	OLLP – employer	Simple reproduction of the workforce, support of labor potential			
4	OLLP – employer	Extended reproduction of the workforce, development of labor potential	Employer support	Signing an agreement with regional authorities on the further development	Tax benefits, grants for additional jobs, subsidies and soft loans for expansion and development
5	OLLP – the buyer of the product of labor	Extended reproduction of the workforce, development of labor potential	Stimulating the transformation of a successful self-employed person into a “social employer”	Signing an agreement with regional authorities on the establishment of enterprises. Business education, creation of business incubators	Tax benefits, grants for job creation, subsidies and soft loans for business creation

*Continuation of the table 1.12.6*

1	2	3	4	5	6
6	OLLP – intermediary – buyer of the product of labor	Depreciation of labor, support of labor potential Simple reproduction of the workforce, support of labor potential	Support, development of self-employment	Development of the consumer union, creation of trade unions to regulate the market price and its structure	Establishing the maximum level of the ratio of the market price in the retail network and the cost of the product of labor, the minimum level of labor costs in the cost of production
7	OLLP – employment center	A decrease in qualitative characteristics of the labor force and labor potential	Stimulation of geographical labor mobility	Signing an agreement with the unemployed on the provision of migration services. Signing by regional authorities of interregional, intra-regional agreements on labor migration	Compilation of current and future regional balances of labor supply and demand. Interregional, intraregional labor exchange in order to balance regional labor markets. Receiving interest for services
8	OLLP – employment center	Support of labor force characteristics, reduction of labor potential	Balancing the labor market in the region. Stimulating professional labor mobility, self-employment	Improving the efficiency of regional employment centers in the field of labor market analysis, cooperation with employers, participation in the development of retraining curricula	Financing of retraining, advanced training in order to change the scope of employment. Stimulating the transition of the population from the category of unemployed to the category of self-employed

Source: author view.

## **Conclusions**

The study allowed us to draw the following conclusions:

1. Labor is the main source of national wealth, the only active productive force that can ensure the development of the national economy. Labor productivity depends on the accumulated experience, knowledge and skills of people, ie the available human capital used in the labor market.

2. The effectiveness of the national economy is determined by the efficiency of available labor resources, the rational distribution of labor between industries and economic activities. It is important to determine the productive types of employment that provide maximum capitalization of labor with the rational use of available resources for the socio-economic development of the national economy. Important for economic development are the proportions of production of vital tangible and intangible goods and the sphere of circulation, the ratio of export- and import-oriented industries, the reproductive structure of production.

3. The situation on the labor market on the one hand depends, on the other – determines the situation on other factor markets and the market of goods and services. Certain economic laws in the labor market, such as Hicks-Marshall's first law (lower wages, which in turn reduces production costs and the cost of finished products, leads to increased consumer demand, increased production, and employment) provide for the availability of unearned income and participation in the property relations of the employed.

4. An important issue of ensuring labor efficiency in the context of creating conditions for national growth is the issue of ownership and distribution of income between the state, the owners of labor and material capital. The increase in consumption opportunities, primarily due to an increase in the share of wages in the structure of income distribution, causes inflation only in conditions of full employment. In the current conditions of development of the national economy, this will increase consumption and savings. In the case of investment, savings have a multiplier effect on the labor market.

5. The terminological disorder of determining the category of the labor market, which is manifested in the following areas:

1) through the exchange system; 2) as a set of social relations; 4) as a set of differentiated subsystems; 3) through a system of economic mechanisms, norms and institutions. In this case, human resources as a source of aggregate labor supply characterize such categories as population, economically active population, labor resources, labor potential, human capital, labor capital. The terminological ordering of labor market categories was served by the definition of the labor market in accordance with the state of the genesis of the role of man in the economic life of society.

6. The object of labor relations is defined as a non-labor force as “a set of physical and spiritual qualities possessed by the body and which are launched by it every time it produces any consumer value”, and not labor resources as a category corresponding to principle of universality of labor, and not human capital as “a set of formed and developed as a result of investment personal traits and motivations of individuals in their possession”, and labor capital as formed and effectively implemented in the labor market part of human capital that meets the needs of labor potential in present and future generations and brings added value.

7. The national labor market is defined as a system of socio-economic relations for the realization of national labor potential. It is proposed to define the national labor potential using a three-pronged approach: 1) in the past dimension – as a set of accumulated in the past knowledge, skills, abilities of the population that can be used in the national economy (qualitative characteristics of EAN); 2) in the modern dimension – the reserve for the use of knowledge, skills, abilities of the population of the country, which are not used by the national economy (able-bodied part of the economically inactive population); 3) in the future dimension – an increase in opportunities to use knowledge, skills, abilities of the population both due to qualitative changes (investment in human capital) and due to quantitative (demographic and migration policy, inclusion in the economic process of people with disabilities with modern technologies).

8. Organizational and economic mechanism of labor market regulation of Ukraine is defined as a set of legal, economic, social and organizational principles to ensure expanded reproduction and

formation of rational labor supply, its effective implementation with national growth in priority areas for the country in terms of capitalization of labor with incentive mechanism its differentiation. Cost and income approaches to the definition of labor capital, its indicator, methods of calculating and assessing the level of labor capitalization are identified.

9. The study of employment, which is a quantitative reflection of the realized labor potential and modern concepts of employment, substantiates that in the development of the national economy strategic orientation should be rational employment, which is a combination of full and effective employment and provides effective redistribution of workers between industries and regions. Full employment conceptually distinguishes between full, efficient, and rational types of employment. The ILO-recognized concept of global employment is typical of countries that are or are heading for the peak of the economic cycle.

10. The price on the labor market can be a regulator of labor supply only if economically free labor. In modern conditions, its reduction will not lead to a reduction in aggregate labor supply, but to the expansion of labor poverty, increase aggregate labor supply due to the additional workload of employees and entry into the labor market of traditionally economically inactive population. The labor market is not characterized by a high level of flexibility, the market price of labor can not in the short term to change the nature of skilled labor.

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*1.12. Labor market regulation mechanism: methodological bases of formation and efficiency evaluation*

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