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## The basic principles of the state social insurance system

### Abstract

This paper is devoted to the problems of using insurance principles in the system of social insurance on the basis of social risks concept. The authors examine distinctions between private social risks insurance and social insurance. Subsidized financing within the social insurance is considered as the main manifestation of insurance principles' violation.

**Keywords:** social risks, insurance, social insurance, insurance principles, social insurance principles, solidarity principle, subsidized financing principle.

### Introduction

The problems of social justice and income adequacy are especially important in the modern society. These problems very often become more acute as a consequence of certain social risks. The protection of citizens from the negative consequences of such risks becomes one of the top priorities of a state. At the same time a socially oriented state needs more financial resources to solve social problems. Moreover, such state needs a precise regulation of all financial aspects, which ensure the social security commitments of a state to its citizens. That is why the public and financial effectiveness of a state's social insurance system becomes more important. Taking this into consideration it is necessary to underline that the study of the social insurance system effectiveness and the role of social risks and insurance principles in the framework of social insurance is especially interesting in this regard.

It should be noted that the theoretical research in the sphere of social insurance began in the beginning of the last century and was presented in the scientific articles of Vigdorichik N., Dogadov V., Semashko N. Today, the research traditions in the sphere of social insurance are maintained by such scientists as Roik V. and Gerasymiv T. But the contemporary scientific publications do not pay attention to the problems of quantitative and qualitative evaluation of the extent to which it is necessary to use insurance principles in the social insurance system. As a result of the publications analysis it has become obvious that most publications are devoted to the theoretical problems of insurance and general directions of its development [1, 2, 3, 7, 9, 10]. At the same time a significant part of publications concerns the drawbacks of the existing Ukrainian social insurance system [4, 5, 6, 8]. In our opinion, there are significant opportunities to improve the effectiveness of obligatory state social insurance system functioning. It is necessary to analyze the state social insurance system as a specific sphere of economic relations, which originates from insurance,

has very close connections with insurance, but at the same time differs from insurance considerably.

This article has the following objectives: (1) to outline the parameters, which define differences between the social insurance system and private business insurance; (2) to carry out the analysis of distinctions of private business insurance and social insurance in accordance with each of the parameters; (3) to give conclusions concerning the necessity and limitations of the use of insurance principles in social insurance on the basis of the performed analysis; (4) to study the expediency of the further expansion or limitation of insurance principles' use in the social insurance system of Ukraine.

### 1. Outline of the parameters according to which social insurance system differs from the private business insurance

Social insurance system is divided into obligatory social insurance and voluntary social insurance. In the framework of this research the "social insurance" concept means the obligatory state social insurance. The use of insurance principles in the social insurance is very limited. It is necessary to underline that, in our opinion, the social insurance system of Ukraine has a combination of some elements of insurance principles' observance and simultaneously some elements of insurance principles' violation. Our analysis makes it possible to detect the aspects of insurance principles' observance or violation in the framework of social insurance, as well as to determine whether this is reasonable from scientific and practical points of view.

Social insurance originates from the social risks of private business insurance. Social insurance emerged as a result of insufficiency of private business insurance and the necessity of state interference in order to overcome the market failures, which are typical for private business insurance.

Obligatory state social insurance programs are aimed at insuring citizens from social risks in the same way as private business insurance programs. The objective of the obligatory state social insurance is to compensate a significant share of income,

which is lost after the retirement or in the case of disability. Private business insurance programs may perform the same function. But there is a significant difference between obligatory state social insurance and private business insurance: in the case of private business insurance the contributions of any person are closely connected with the individual risk of this person and the amount of money which this person is to get in the case of the insured accident. With the private business life insurance the contributions depend on factors, which have an impact on the person's level of health (for example, person's age). At the same time, the amount of a person's pension on average equals all the contributions made plus the investment income. The obligatory state social insurance programs ensure not only insurance but the income transfer as well.

The parameters of differences between obligatory state social insurance and private business insurance include: (1) the level of administrative expenses; (2) the ability to protect citizens against certain types of social risks; (3) the adverse selection of customers (potential insured persons), i.e., the inability to protect all citizens without exceptions; (4) the existence of moral risks; (5) the role of public significance; (6) the scale of public solidarity.

## **2. The analysis of distinctions of the private business insurance and social insurance in accordance with the parameters mentioned**

In regard to the first parameter it is necessary to underline that high administrative expenses per one insured person present the peculiarity of private-business insurance in comparison with obligatory state social insurance. To ensure future pension a person may conclude a pension contract with private business insurance company. According to such contract a person will be periodically paid certain amounts of money starting from a certain age and for the rest of life. But in most private business insurance programs profitability rate isn't very high. High administrative expenses per one insured person in private business insurance programs present one of the reasons of this state of affairs. That is why, while comparing the obligatory state social insurance and private business insurance it is necessary to take into consideration that obligatory state social insurance is characterized by low administrative expenses per one insured person. From the public point of view it is much cheaper for society to provide the obligatory state social insurance for all the citizens than to use the services of many private-business insurance companies spending significant amount of money for competitive activity (Figure 1). Considering the second parameter it is necessary to underline that private business insurance companies in

contrast to the obligatory state social insurance system are not able to protect citizens from certain types of social risks (for example, inflation risk, risk of being killed in battle). The main characteristic feature of obligatory state social insurance in contrast to private business insurance is that all the payouts from this system are indexed, i.e., such payouts increase in accordance with inflation rate.

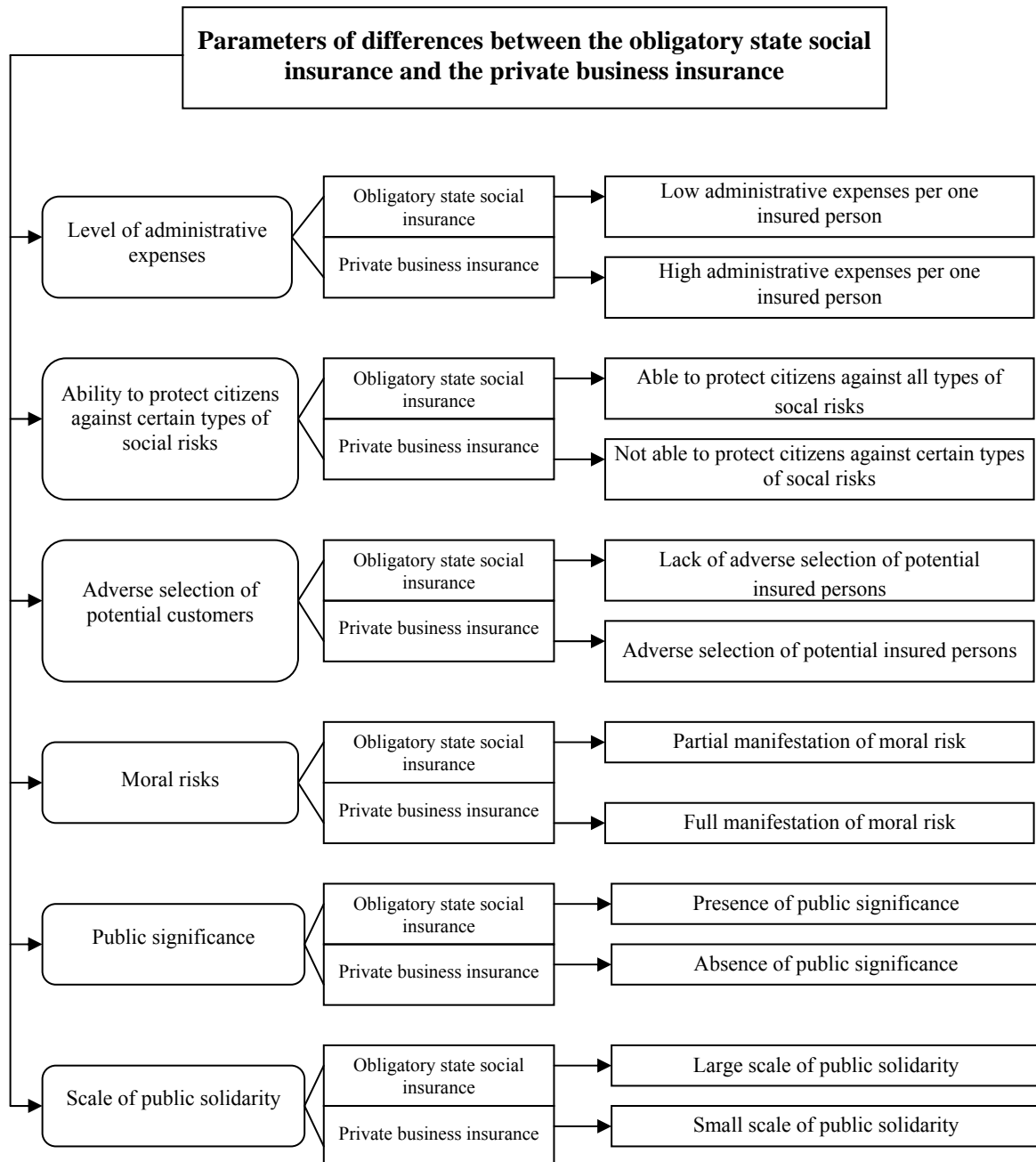
Inflation risk is an example of risks the society has to deal with. For any private business insurance company it is too difficult to be responsible for such risks. Such group of risks includes the risk to be killed in battle too. In peace time deaths of different people represent independent events. Private insurance companies are able to forecast the number of people who die annually. But in wartime the mentioned number may increase significantly. That's why most of private business insurance companies exclude the risk to be killed in battle from insurance coverage. Private business insurance companies demonstrate the same attitude for inflation risk. If private business insurance companies propose insurance coverage for inflation risk, such companies will bear significant losses if inflation rate is higher than predicted. In this case such companies will be not able to meet all of their commitments. Consequently, private business insurance companies exclude inflation risk from insurance coverage.

We can distinguish three main methods, which ensure that the state is capable of presenting insurance coverage for such types of risk. In the first place, state is able to meet the commitments of obligatory state social insurance by using the budgetary monetary resources to cover obligatory state social insurance system deficiency. In the second place, state is able to meet the commitments of obligatory state social insurance by raising the rates of social insurance contributions. In the third place, state is able to meet the commitments of obligatory state social insurance by changing the social insurance legislation and decreasing the pensions and other payouts from the obligatory state social insurance system.

The third parameter to analyze is the adverse selection of customers (potential insured persons), i.e., the inability to protect all citizens without exceptions. The adverse selection of potential insured persons is the characteristic feature of private business insurance in contrast to obligatory state social insurance. Due to the adverse selection private business insurance companies are unable to provide all citizens with effective insurance. The problem is that different people have different levels of individual risk and different life expectancy. For example, a private-business insurance company, which specializes in life insurance and pays the insured sum in case of death, is not interested to provide insurance coverage for people with a high probabili-

ty of death. If representatives of the company know about such high probability then they most likely will refuse to provide insurance services for such people or insist on payments of overstated contribution rates. For elderly people with cardiovascular diseases such contribution rates will be especially high. On the other hand, private business insurance companies, which specialize in life pensions insurance, have contrary interests. The representatives of

such companies do their best to provide insurance services for people with high probability of death. Taking into consideration that women live longer than men, private business insurance companies set lower contribution rates for women who need life insurance, and higher contribution rates for women who need life pension insurance. Therefore, private business and market itself make adverse selection of potential insured persons.



**Fig. 1. Parameters of differences between the obligatory state social insurance and the private business insurance**

If it is easy to determine the differences between people with different rates of individual risk, economically effective private business insurance companies will set contribution rates taking it into consideration. If private business insurance company meets difficulties in determining differences between people with different rates of individual risk,

it can encounter serious problems. This situation can lead to undesirable direct consequences, particularly: on average, people with low risks receive less money from insurance company than they give to insurance company and these people might consider such insurance unprofitable for them. If these people are not inclined to take the risk they will refuse to

use such insurance. As a result, if people with low risks refuse to buy insurance policies, the average level of payments such insurance company has to make is likely to grow, thus, raising the cost of insurance. That is why state social insurance is obligatory, i.e., all potential insured persons become insured and have to pay social contributions and all social funds have to offer their services to all potential insured persons without exceptions. Consequently, obligatory social insurance system doesn't face the problem of potential insured persons' adverse selection.

Such state of affairs leads to another consequence. State social insurance is characterized by the so-called subsidized financing. Subsidized financing means that insured persons with different individual risk levels pay the same rate of contributions. Subsidized financing is typical of all types of state social insurance. The rates of contributions in all types of state social insurance are not adequate to the individual risk level of the insured person (for example, persons with chronic diseases and persons without chronic diseases pay the same rate of contributions). In the case of private business insurance subsidized financing does not exist except for the situations when insurance company simply fails to identify the individual risk level of the potential insured person correctly. But such situations should be classified as exceptions to the rule, because private-business insurance companies pay great attention to the problem of correct setting of the rates of contributions. Private business insurance companies undertake great efforts in order to achieve the adequacy between individual risk levels of the potential insured persons and the rate of contributions these persons have to pay.

As to the fourth parameter it is necessary to indicate that moral risk in the framework of social risks insurances is divided into two aspects. The first part of such risk means that insured persons feel more protected than uninsured persons. This reason may lower insured persons' individual stimulus to avoid insured accidents. Such behavior raises the level of the initially defined individual risk. Consequently, insurer may incur losses. Such aspect of the moral risk is typical for private business insurance companies as well as for obligatory state social insurance system. To minimize moral risk private-business insurance companies and obligatory state social insurance system use the same instrument – legal prevention. The second aspect of moral risk means that private business pension insurance allows early retirement. Such aspect of moral risk is typical only for private business insurance companies. It means that the bigger share of an employee's income is compensated by pension obtained from private business insurance company, the fewer incentives he has to continue working. If an employee's income is fully

compensated by the pension, even healthy and highly productive employees will be inclined to retire early. This aspect of moral risk is very important because it leads to labor market deformations.

The fifth parameter in the comparison of private-business insurance and obligatory state social insurance is the presence of public significance. Public significance is typical for the obligatory state social insurance system, because state forces citizens to take part in this system for their own good and for the good of society as a whole. Even if all private business insurance companies are functioning well, state interference is still necessary. Otherwise, society will face the problem of imperfect insurance market, i.e., a certain part of population (low-income groups, elderly people, and disabled persons) will not be protected by the system of private business insurance. People in the civilized society will not remain indifferent and they will try to help unprotected people. It is important what sources this help will be financed from. It is necessary to emphasize that obligatory state social insurance system is the most effective mechanism to provide such financial help and solve the problems of social justice.

Finally, the sixth parameter in the comparison of private business insurance and obligatory state social insurance is the scale of public solidarity. Public solidarity and individual responsibility within insurance should be organically combined. Every person has the internal need to protect himself from contingencies of everyday life. The usual routine of individual and collective life in society is often interrupted by contingencies of force majeure or public character. Such contingencies may be characterized by two important features: the first one is the random character of such contingencies; the second one is nonuniformity of the damage caused. It is known that the number of persons interested in the pooling of resources in order to protect themselves from contingencies, as a rule, is greater than the number of persons who really suffer. Under such circumstances a solidary distribution of damage among the affected persons levels out the consequences of the contingency per one person. At the same time, the greater the number of persons taking part in the pooling of resources, the lesser is the damage per one participant. Therefore, solidary distribution of damage presents the basis of non-accumulative types of private business insurance and state social insurance.

The scale of public solidarity within the state social insurance is much bigger than within the private-business insurance. We can find a very simple explanation for this. Within the framework of state social insurance the number of insured persons in each of social insurance funds is almost equal to the

whole working population of the country. None of the private business insurance companies can be compared to social insurance funds on the basis of the number of insured persons. In certain periods of time not all insured persons encounter insured accidents. Therefore, the losses of the insured persons are to be compensated from the combined fund of contributions. Solidarity based insurance means that every participant has to make contributions to cover the losses caused by the pooled risks. In this manner, if losses are not to be borne only by certain persons, but are distributed among all the insured persons, the total sum of such losses is more sustainable and predictable. The greater the number of individual risks pooled, the greater the extent to which the actual losses will coincide with the expected ones. Due to such mechanism the contributions made by certain person are more sustainable and definite, the probability of deficiency or excess of money within the state social insurance system is reduced. Moreover, such mechanism allows state social insurance system to avoid some typical negative features of private business insurance. For example, private business insurance company will never pay compensation under insurance contract until all the necessary contributions are made. But

within the state social insurance the compensation is guaranteed starting from the moment at which a person becomes an insured person irrespective of the amount of contributions made. In this context, the obligatory state social insurance presents an organizational and economic mechanism aimed at lessening the negative influence of social risks upon human life by means of the solidary compensation of losses.

### 3. The necessity and limitations of the insurance principles' use in social insurance

Solidarity does not characterize the whole system of private business insurance, but only one element of this system known as risk insurance. Correspondingly, within the sphere of life insurance (accumulative insurance) solidarity factor is absent. Solidarity characterizes all types of obligatory state social insurance and all of these are risk types. In the case of the Ukrainian pension system it is planned to introduce the new pillar – obligatory state accumulative pension insurance, and this potential pillar of state pension system will be not characterized by solidarity.

Solidarity and subsidized financing are the important features of state social insurance. They are included in the list of state social insurance principles (Figure 2).

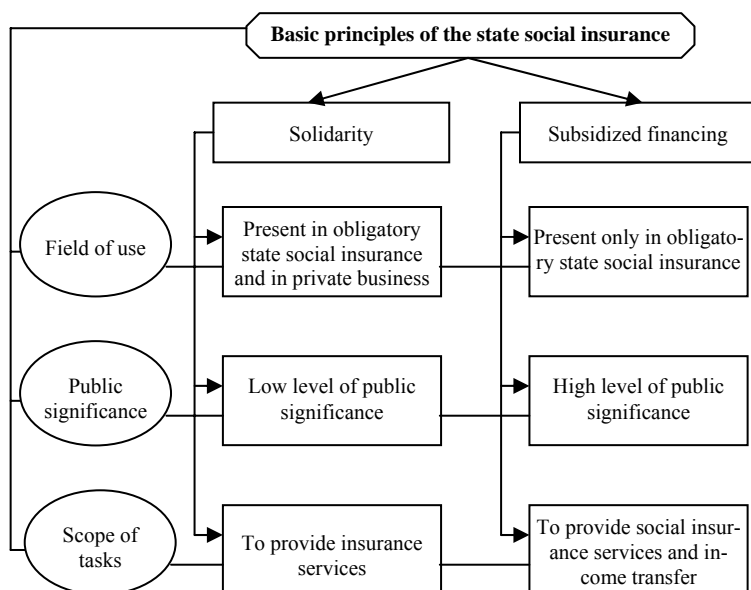


Fig. 2. Basic principles of the state social insurance system

According to the national legislation, state social insurance is based on the following principles:

1. Legislative determination of state social insurance's conditions and procedures.
2. Obligatory character of state social insurance for persons who work under the conditions of labor contract, persons engaged in creative activity, entrepreneurs, who are not legal persons.
3. Obligatory character of legislatively determined payments within the state social insurance from social insurance funds.
4. Solidarity and subsidized financing.

5. State guarantees for insured persons' rights.
6. Insurance of basic social payments (for example, pensions etc.), which provide a minimal level of living.
7. The use of social insurance assets according to their intended purposes.
8. Equal rights and equal representation of parties in the obligatory state social insurance system.

Through subsidized financing the obligatory state social insurance system carries out the transfer of income (Figure 3).

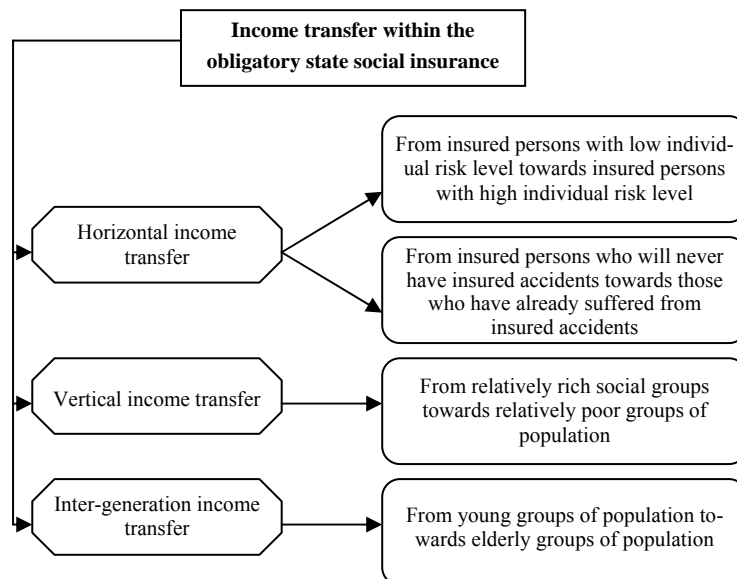


Fig. 3. Income transfer within the obligatory state social insurance

First of all, the horizontal transfer of income among insured persons with different individual risk levels. More precisely, this is the transfer of income from insured persons with low individual risk level towards insured persons with high individual risk level. This transfer of income is obvious, because due to subsidized financing principle the insured persons with low individual risk level have to pay higher contributions than they should according to their individual risk level and vice versa: insured persons with high individual risk level have to pay lower contributions than they should according to their individual risk level. Moreover, we can define another manifestation of horizontal income transfer: from insured persons who will never have insured accidents towards insured persons who have already encountered insured accident (for example, men never have such insured risk as pregnancy and childbirth covered by the temporary disability insurance, although men pay the same contributions as women).

Secondly, vertical income transfer from relatively rich social groups of population towards relatively poor groups of population. Vertical income transfer is carried out through progressive social insurance contributions according to ones' earnings, as well as through the reduction of social insurance payments according to one's earnings.

Thirdly, inter-generation income transfer from young groups of population towards elderly groups of population. It is clear that all these income transfers are interdependent and have to be mutually complementary. Each type of income transfer has its own peculiarities.

We have discovered that the main violation of insurance principles within the obligatory state social insurance is that this system functions on the basis

of subsidized financing principle. Subsidized financing principle is the key characteristic feature of obligatory state social insurance. It is precisely this principle that allows obligatory state social insurance system to solve all those problems which private-business insurance companies are unable to solve.

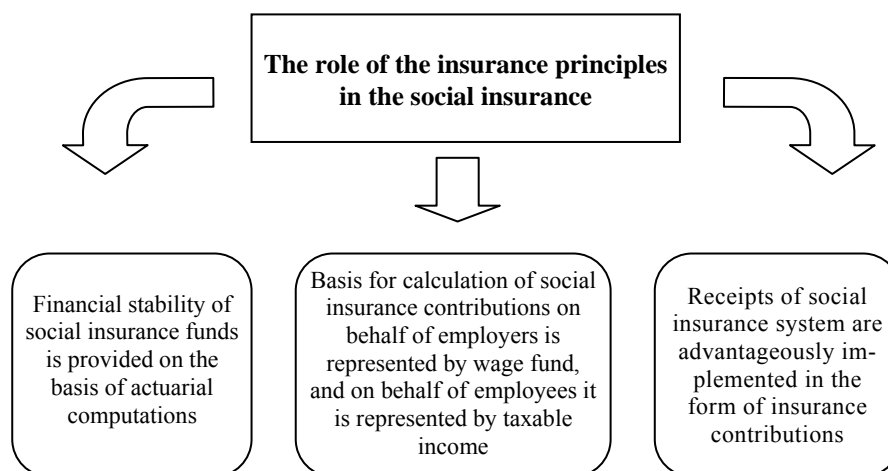
#### 4. The expediency of the further expansion or limitation of the insurance principles' use in the social insurance system of Ukraine

In this context, it is necessary to answer the question about the relevance of the further expansion of the use of insurance principles in social insurance. In the contemporary scientific literature we can often come across discussions about the problem of how to improve the efficiency of the Ukrainian social insurance system's functioning. As the main way of solving this problem the researchers often propose to transfer the functioning of the obligatory state social insurance system towards the functioning on the basis of pure insurance principles, i.e., the principles typical for private business insurance companies. But such method is unacceptable. There are some specific social problems which private business insurance companies are unable to solve on the basis of the pure insurance principles. That is why the obligatory state social insurance was established as a specific system separate from private-business insurance system.

A significant potential for the improvement of the Ukrainian social insurance system consists in excluding the insured persons entitled to special benefits from social insurance system. It is necessary to underline that the necessity to make payments for such insured persons destabilizes and unbalances obligatory state social insurance system. Payments for such insured persons should be made from the sources other than social insurance system. For example, people who have worked under harmful conditions

retire earlier than other groups of employees and their pensions should be paid from corporate or professional pension funds. However, the shifting of such financial burden from the social insurance system onto corporate pension funds may be implemented only in the long-term perspective, gradually and without the infringement on the social rights of the above-mentioned groups.

The Ukrainian system of insurance is oriented towards the use of social insurance principles, i.e., social insurance system uses only those insurance principles, which don't impede social insurance system from solving its target tasks. Therefore, in our opinion, further expansion of the use of insurance principles in the social insurance system of Ukraine is not necessary (Figure 4).



**Fig. 4. The role of the insurance principles in the social insurance**

The presented analysis of differences between private-business insurance of social risks and obligatory state social insurance makes it necessary to explain the use of insurance principles in obligatory state social insurance. Insurance principles are used in obligatory state social insurance in the following ways: (1) financial stability of social insurance funds is provided on the basis of actuarial evaluations; (2) wage funds are the basis for the calculation of social insurance contributions on behalf of employers, and taxable income is defined as the basis for calculation of social insurance contributions on behalf of employees; (3) receipts of social insurance system are advantageously implemented in the form of insurance contributions.

Wage fund is determined as the basis for calculation of social insurance contributions on behalf of employers. This is absolutely reasonable but at the same time it simultaneously contains some factors that negatively influence the effectiveness of social insurance system. The specific character of the mentioned basis for calculation of social insurance contributions lies in the following: employers have a significant motivation to suppress wage growth and to use illegal ways of labor remuneration.

As the method of solving this problem some publications offer to use social insurance taxes, and establish the new basis for calculation of social insurance tax, namely not the wage fund but sales proceeds. But in our opinion, such method of solving the problem is not acceptable. It should be noted that the general economic situation in Ukraine is

characterized by negative trends in the sphere of labor remuneration. In conditions of insufficient opportunities to get a job and low average wage level a significant part of economically active citizens of Ukraine work abroad. In Ukraine high rates of employment growth are observed only for the groups of people who are less than 20. This situation is conditioned by the growing demand for low qualified labor force. Such state of affairs demonstrates the regressive trends in the national economy as a whole, because developed countries are characterized by opposite tendencies, i.e., by the growing demand for highly qualified labor force. In addition, the share of wages in the structure of GDP and production costs still remains low and inadequate to the experience of the developed countries. This situation is connected with employers' pursuit to win in price competition, i.e., decrease prices by means of saving on wages.

Taking into consideration the above-said we can say that illegal ways of labor remuneration will be still wide spread even after the change of the basis for the calculation of social insurance contributions (from wage fund towards sales proceeds), because such situation is conditioned by economic reasons of large-scale and profound character. Such statement can be proved by the experience of the Russian Federation, where a single social tax was introduced on the basis of regressive taxation scale in order to stimulate employers not to use illegal ways of labor remuneration. But the aim was not achieved, and as the consequence of insufficient receipts social insurance system suffered from significant deficits.

Considering the shift from social insurance contributions towards social insurance taxes it should be noted that such shift is not acceptable, because it fully contradicts the insurance principles within the framework of obligatory state social insurance. The categories “social tax” and “social contribution” differ from each other with regard to such parameters as social-economic nature and role in social protection system. Taxes may be characterized as non-repayable payments, and social contributions ensure payments in the case of insured accidents (illness, industrial diseases and industrial injuries, unemployment, old age) and may be repayable in the form of insurance disbursement.

In compliance with social insurance legislation it is prohibited to include social insurance contributions into state budget. It is also prohibited to use social insurance contributions for the purposes not stipulated by the legislation. The shift from social insurance contributions towards social taxes may lead to the growth of state budget expenses necessary to support the financial stability of social insurance funds. Such state of affairs may lead to the transformation of social insurance system into social assistance system. Therefore, social insurance system differs from social assistance system according to the parameter of insurance principles.

### Conclusions

In our opinion, the results of the analysis make it possible to draw some conclusions.

First of all, the parameters of differences between the obligatory state social insurance and private business insurance include: (1) the level of administrative expenses; (2) the ability to protect citizens against certain types of social risks; (3) the adverse

selection of customers (potential insured persons), i.e., the inability to protect all citizens without exceptions; (4) the existence of moral risks; (5) the role of public significance; (6) the scale of public solidarity.

Secondly, it can be stated that the violation of the main insurance principles within the obligatory state social insurance is the fact that this system functions on the basis of subsidized financing principle. Subsidized financing principle is the key characteristic feature of obligatory state social insurance. It is the principle that allows obligatory state social insurance system to solve all those problems, which private business insurance companies are unable to solve. Insurance principles are used in obligatory state social insurance in the following ways: (1) financial stability of social insurance funds is provided on the basis of actuarial evaluations; (2) wage funds are the basis for the calculation of social insurance contributions on behalf of employers, and taxable income is defined as the basis for calculation of social insurance contributions on behalf of employees; (3) receipts of social insurance system are advantageously implemented in the form of insurance contributions.

Thirdly, at the present moment the proportion between insurance and non-insurance principles within the social insurance system of Ukraine is the optimal solution, i.e., any expansion or limitation of the use of insurance principles within social insurance system may lead only to worsening of the main indicators of social insurance effectiveness. A significant potential for the improvement of the Ukrainian social insurance system consists in excluding the insured persons entitled to special benefits from social insurance system.

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