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## INCOME GENERATION OF PAYG PENSION SYSTEM

*The article discloses some tools of income generation in PAYG system, determines special aspects of income determination in Ukrainian Pension Fund. It studies the components and the structure of earnings to the system of the first level pension insurance for 2000–2013. The main problems and lacks in income generation of Ukrainian Pension Fund were indicated.*

**Keywords:** pension insurance, Ukrainian Pension Fund, own profits, transferred profits, pension coverage, income of Ukrainian Pension Fund.

**Насибова О. Формирование доходной части солидарной системы пенсионного страхования.** *Раскрыт механизм формирования доходной части солидарной системы пенсионного страхования. Определены особенности образования доходов Пенсионного фонда Украины. Осуществлен анализ состава и структуры поступлений в систему пенсионного страхования первого уровня за 2000–2013 гг. Выявлены основные проблемы и недостатки при формировании доходов Пенсионного фонда Украины.*

**Ключевые слова:** пенсионное страхование, Пенсионный фонд Украины, собственные доходы, переданные доходы, пенсионное обеспечение, доходы Пенсионного фонда Украины.

**Background.** Current situation in pension system deposes about necessity of correction of the following auditing in pension reform. First by reducing financial pressure on Ukrainian Pension Fund via gradual transition to strengthening the role of storage components in pension system.

Filling of income generation in Ukrainian Pension Fund is one of the most important problem at social protection of population in Ukraine. Constant increasing of social standards during the economic reform demands augmentation of earnings that would provide the needs of stay-at-home population part.

**Analysis of recent research and publications.** A substantial contribution at researches describing problems has done local experts (B. Zajchuk, A. Libanova [1], V. Melnichuk [2], L. Tkachenko [4], O. Koval [5], B. Nadtochii and others) and foreign experts (A. Karimullin, S. Klane, V. Loginova, G. Patler, O. Ruf-Fidler and others).

The **aim** of the article is disclosing some tools and peculiarities at income determination of PAYG pension insurance system via modern experience of pension insurance system in financial condition that will determine the effective lines of its improvement.

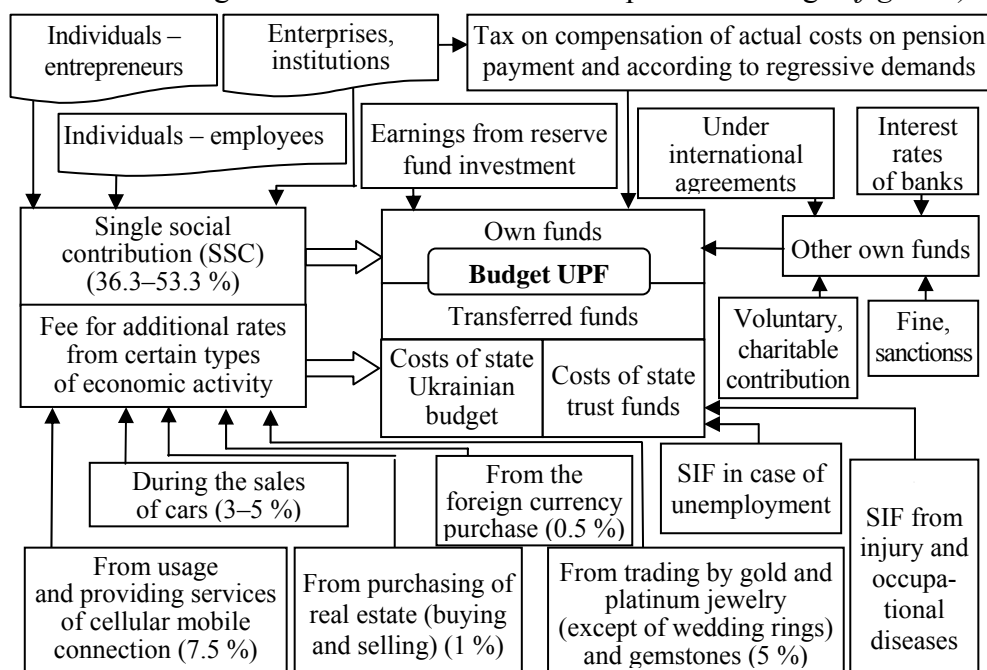
**Materials and methods.** In the scientific article methods and approaches that let realize the conceptual research integrity are used. Dialectic and structural methods of perception are used for disclosing the main point formation at income generation in Ukrainian Pension Fund at the economic cyclicity system. Methods of analysis and output generation, induction and deduction are used for determination of peculiarities in the first level formation in pension

system, comparison and statistical methods – for finding the reserves and reinforcements at optimization of income in Ukrainian Pension Fund.

**Results.** Pension system service is complicated in Ukraine. It has different financial forms. Government-owned institutions and non-state legal entities take part at mobilization of funds and set-up of pensions. Under the conditions lack of financial resources of state-owned funding has to provide civil payment of minimum income at retirement. Moreover, disbursement of self-imposed formation of pension funds has the aim to increase pension in via additional payment at the age of retirement from non-state pension provision. Multilevel pension service established in Ukraine should assist of providing obligatory minimum wage for all pensioners and substitution of guaranteed mechanisms with the help of which citizenry can save money for age.

Thanks to analysis of income formation at the first and third level system of pension coverage in the country it's possible to determine problematics of funding filling PAYG pension system and non-state pension provision, money utilization efficiency and balancing of income and costs in Ukrainian pension fund (UPF) that is system governing body providing the first level.

UPF budget structure is characterized by complex multicomponent structure of budget indexes income and costs expenditure budget (figure 1).



**Figure 1. Revenue formation of Ukrainian budget in pension fund**

(designed by the author on the Ukrainian legislation basis [6–9])

Under the current law [6] main formation sources in UPF are:

- receipt of single contribution payment at mandatory state social insurance that direct on mandatory state social insurance in size defined by law, except of premiums that direct to memory system of mandatory state pension insurance;

- investment income that is received from investment of costs reserve to cover the budget deficit in Pension Fund in future;
- state budget costs and trust Funds that count in Pension Fund;
- amounts from financial sanctions, applied according to legal and natural persons for violations of established calculation procedure and insurance contribution payments and usage of Pension Funds and also the amounts of administrative penalties, imposed according to legislation on officials and citizens for these violations;
- legal and natural persons' donations;
- other earnings in accordance with legislation.

All incomes that are mobilized in UPF can be divided into own and transferred. Own incomes – earnings in the form of enterprises, institutions and citizens mandatory and voluntary contribution, incomes from investments and earnings in the form of financial sanctions that as a rule have to create the vast majority of the part fund earnings (90 %). In the structure of own earnings over 80 % belong to obligatory contributions to the subjects of enterprise activity. These are enterprise, budget and public institutions and natural persons' contributions set by Ukrainian legislation to UPF. Their volumes depend on the expenditure amount on payment for work paid to workers.

Fundraising to PAYG of pensions is centralized that simplifies procedures of enforcement for payers and the control by the state regulator and provides high effectiveness of interventions application on offenders.

Such way of collective insurance contributions represents the best world practice, it completely fits in nowadays-domestic realities, provides the best possibility of the state control and indirectly encourages to simplification of entrepreneurship conditions.

Transferred incomes are costs that are transferred to the fund from the budgets and target institutions, that are resources transferred to UPF with the aim of pension payments providing that finance due the state budget or social insurance funds. Transfer of such funds is caused by earnings mobilization for providing of these costs conducts by budget institutions and their performer is UPF.

At this stage of system pensions development the issue of financial capability at Pension fund sharpens for the performers' payment despite of rapid increasing UPF budget in 2000–2013. In the *table*, you can see total amount of earnings to Ukrainian Pension Fund that constantly were increasing in 2000–2013. Thus, UPF incomes increased at 2.33 billion UAH in 2001 compared to the previous year, in 2002 – 5.80 billion UAH, 2003 – 3.01 billion UAH, 2004 – 10.91 billion UAH, 2005 – 12.98 billion UAH and 2006 – 13.72 billion UAH. Recorded rapid revenues increase of pension insurance PAYG at 32.73 billion UAH in 2007, that is in 1.52 times more than in 2006. In 2008 – 52.18 billion UAH (at 1.55 times more), that is 35.31 % compared to the previous year, 2009 – 3.29 billion UAH, 2010 – 14.61 billion UAH, 2011 – 27.78 billion UAH (at 1.17 times), 2012 – 22.17 billion UAH (at 1.12 times), in 2013 – 16.84 billion UAH. Increase is scheduled at 0.53 billion UAH in 2014, that is the smallest index during analyzing period.

Table

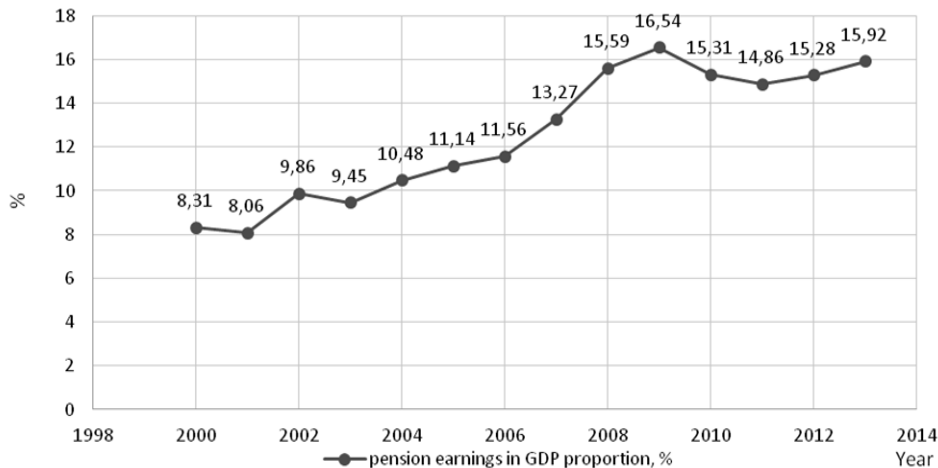
**Composition and structure dynamics of pension receipts to PAYG in 2000–2013**

Profits of pension fund	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Own receipts, including an account of remain, billion UAH	11.55	13.28	19.44	23.15	30.01	42.22	52.80	70.44	106.20	114.91	127.04	152.41	165.83	170.82
Money of the state budget of Ukraine, billion UAH	1.83	2.13	1.98	1.85	5.88	6.66	9.74	24.88	41.42	35.82	38.18	40.56	49.17	61.47
Money of state special purpose funds, billion UAH	0.75	0.76	0.84	0.27	0.29	0.28	0.34	0.29	0.17	0.35	0.47	0.50	0.64	0.19
Total profits, billion UAH	14.16*	16.46**	22.26	25.27	36.18	49.16	62.88	95.61	147.79	151.08	165.69	193.47	215.64	232.48
Share of pension receipts in GDP, %	8.31	8.06	9.86	9.45	10.48	11.14	11.56	13.27	15.59	16.54	15.31	14.86	15.28	15.98
Share in total, %:														
own receipts	81.74	80.68	87.33	91.61	82.95	85.88	83.97	73.67	71.86	76.06	76.67	78.78	76.90	73.48
money of the State Budget	12.95	12.94	8.90	7.32	16.25	13.55	15.49	26.02	28.03	23.71	23.04	20.96	22.80	26.44
money of state special purpose funds	5.31	4.62	3.77	1.07	0.80	0.57	0.54	0.30	0.12	0.23	0.28	0.26	0.30	0.08

\* In 2000 add 0.03 billion UAH due to the money of local budgets on debt liquidation from payments on the care of child from 1.5 to 3 years old.

\*\* In 2001 add 0.29 billion UAH due to credit resources on coverage of cash break.

Comparative analysis of earnings dynamics to UPF budget shows considerable increase in their volumes (earning part of pension insurance PAYG increased at 218.32 billion UAH), and also their proportion of GDP increase twice – from 8.31 % in 2000 to 15.92 % in 2013. Dynamics of the pension earnings proportion is shown at *figure 2*.



**Figure 2. Ratio of income of Ukrainian Pension Fund and GDP, %**  
(calculated by the author according to data [9; 10])

As we can see from the table an increase of PAYG revenues resulted thank to increasing such sources of accumulation in UPF as own revenues and state public funds in the form of transfer payments.

The main part of earnings from which the first level of pension system is formed own revenues of UPF that rapidly increase every year from 2007. Thus, own revenues increased at 159.27 billion UAH in 2013 compared with 2000 and equaled 170.82 billion UAH that is 73.48 % from the total earnings amount in 2013. From 2000 until 2013 the biggest amount of own revenues was in 2013 that equaled 170.82 billion UAH and the smallest amount in 2000 – 11.55 billion UAH. Own revenues had the upper share in 2003 – 91.61 %, that is met due to formation of UPF income share.

Level of UPF income was increasing in the part of the Ukrainian state budget (USB) from 2000 until 2008. Revenues using USB equaled 41.42 billion UAH. From the beginning 2009 was recorded a tendency to the UPF financial reducing from the state budget that is positive for the UPF income share formation. Nevertheless, there was an increasing burden on the state budget and ratable UPF financial dependence from the state budget in 2010. So, USB earnings for pensions increased at 2.36 billion UAH in 2010 compared with 2009, in 2011 – increased at 2.38 billion UAH compared with the previous year, in 2012 – at 8.61 billion UAH, in 2013 –

at 12.3 billion UAH, that is in 1.25 times. The biggest index of USB earnings that are paid to UPF were recorded in 2013 – 61.47 billion UAH that is 26.44 % UPF total income in 2013. Planned payment orders from USB are bigger – 65.69 billion UAH.

Money from such trust funds as Social Insurance Fund from manufactured accidents and occupational diseases and Social Insurance Fund in the case of unemployment amount a small proportion during the formation of UPF income share relatively own earnings and transfers from USB.

For further identification of problem issues during the formation of UPF incomes, it is necessary to analyze the structure of pension earnings in PAYG for 2000–2013.

Despite the volume own incomes increasing in UPF, their share in the structure of sources reduced during 2000–2013 at 8.26 %. At the same time share income of the state budget increased at 13.5 % that is from 12.95 % in 2000 to 26.44 in 2013. This is negative tendency during the pension formation in Ukraine and shows increasing burden for USB and increasing dependence in general pension system from the state budget. Thus, there is a lack of own resources in pension income system, that is formed because of payments to enterprises, institutions and private persons according to the legislation. Therefore, transfers from the state budget to UPF were 1.83 billion UAH in 2000. They planned 65.69 billion UAH in 2014 that is 35.89 times more. The biggest volume of UPF budget filling at the expense of USB was recorded in 2008 (28.03 % from the total volume earnings).

Ratio volume analysis of UPF incomes gains a special attention with state budget costs in Ukraine without transfers' accounting for PAYG. UPF incomes were 43.99 % costs of USB in 2000 (32.12 billion UAH – without transfers to UPF). The ratio between the UPF incomes and USB costs without transfers' accounting were 43.61 % in 2005, 49.38 % – in 2006, 64.03 % – in 2007, 73.75 % – in 2008, that is increased at 9.72 % (200.39 billion UAH – without transfers to UPF), 72.99 % – in 2009, 62.43 % – in 2010, 73.62 % – in 2011, 62.24 % – in 2012, 64.88 % – in 2013, 61.06 % – in 2014. Therefore, the UPF resources were less twice compared with USB costs from 2000 until 2007, but their volume equaled to 75 % in 2008, 2009, 2011. If it continues UPF resources can exceed USB [11].

Under these conditions, PAYG financial ability depends on the state budget. This is because of violation of principles in obligatory pension insurance that are determined in article of the seventh Ukrainian Law №1058 about obligatory financing at the expense of UPF costs, related with pension payments and providing of social services, established by the existing legislation [12].

Thus, it is necessary to create definite conditions for UPF transformation at self-pay off organization and provide implementation of one of the principles related to obligatory pension insurance by increasing the

volume of own earnings. For the detection of reserves, increasing and optimization in the formation of UPF own earnings it is necessary to analyze their structure.

The increase of share earnings due to USB informs about occurrence of UPF gradually dependence from the budget money and insolvency of financial resources formed by own forces. Such UPF financial dependence from the state budget causes the budget-insurance fund in UPF. This formation of the first level pension system breaks the social insurance principles.

The situation related to the necessity of UPF covering deficit by to budget money and constant increase of transferred incomes indicates the narrowing possibilities of the state budget to finance health care, culture, education and science, that deteriorates material status in these spheres and social mood in general.

The formation of UPF incomes at the same time follows many losses related to a great amount of people that get pensions. There is also incorrectness of issues according to the base of insurance costs. All this leads to the PAYG imbalance and increasing of dependence from the Ukrainian state budget.

Despite constant increase in PAYG share income of pension insurance there is a lack of money in the UPF that is adverse to budget. Whereas there is the highest share accruals of obligatory contribution from the salary to the pension fund in Ukraine – in general 36.3–53.3 % (32.7–42.7 % the employer pays depending from the manufacturing risk, the employee pays 3.6 % by himself). It causes substantial burden on the employers, low level of tender declaration and increase of shady employment among the working-age population. That creates some difficulties in the Ukrainian pension fund formation. Except this, the part of taxes that is paid to the USB is transferred for the pension financing. In this context, it is very difficult to reach the whole lawfulness of incomes among working population.

**Conclusion.** The data of analysis in current situation at income share budget of Ukrainian pension fund lead to the necessity of creating long-term strategy for the pension system development. It's concerned with low financial effectiveness of the state pensions from own resources, thus progressive strengthening of misbalancing in UPF budget, increasing its dependence from the state-budget transfers, lag in pension income that was formed during the soviet pension legislation.

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***Насібова О. Формування дохідної частини солідарної системи пенсійного страхування.***

***Постановка проблеми.*** Збільшення Пенсійного фонду є одним з найважливіших аспектів соціального захисту населення України. Постійне зростання соціальних стандартів на етапі реформування економіки вимагає збільшення доходів, які забезпечать потреби непрацездатного населення.

***Аналіз останніх досліджень та публікацій.*** Значний внесок у дослідження питання дохідної частини пенсійного фонду зробили вітчизняні науковці Б. Зайчук [3], Є. Лібанова [4], В. Мельничук [1], Л. Ткаченко [2], О. Сміт, [5], Б. Надточій та ін.

***Мета статті*** – проаналізувати механізм формування та особливості дохідної частини солідарної пенсійної системи шляхом проведення аналізу поточних фінансових умов пенсійної системи для виявлення ефективних шляхів її покращання.

***Матеріали та методи.*** У науковій статті застосовано сукупність методів і підходів, які дозволили реалізувати концептуальну єдність дослідження. Діалектичний та структурний методи пізнання використано для розкриття сутності формування дохідної частини Пенсійного фонду України у системі



економічної циклічності; методи аналізу, синтезу, індукції та дедукції – для визначення особливостей утворення першого рівня пенсійної системи; методи аналогій, порівняння та статистичний – для виявлення резервів зростання і оптимізації формування доходів Пенсійного фонду України.

**Результати дослідження.** Аналіз складових та структури прибутку Пенсійного фонду України показав, що незважаючи на постійне зростання прибуткової частини страхових фондів солідарної пенсійної системи, цього недостатньо для наповнення пенсійного фонду. Зростаюча частка доходу з державного бюджету свідчить про постійну фінансову залежність бюджету Пенсійного фонду і зменшення власних фінансових ресурсів. Тобто Пенсійний фонд поступово стає бюджетно-гарантованим фондом, і процедура формування першого рівня пенсійної системи порушує принципи соціального страхування.

Потреба покривати дефіцит Пенсійного фонду за рахунок бюджетних коштів і постійне збільшення залученого прибутку призводить до скорочення фінансування з державного бюджету таких сфер, як охорона здоров'я, культура, освіта та наука.

Дохід Пенсійного фонду одночасно супроводжується втратами, пов'язаними з великою кількістю людей, які отримують привілейовані пенсії, невирішеними питаннями щодо основ пенсійного страхування, великим тягарем по фонду заробітної платні. Це все призводить до незбалансованості солідарної пенсійної системи, збільшує залежність від державного бюджету України.

**Висновки.** Аналіз даних поточного стану прибутку державного бюджету України показав необхідність вироблення довгострокової стратегії пенсійної системи. Це зумовлено неналежним забезпеченням фондів громадських пенсійних зобов'язань через свої власні джерела, і тому швидкозростаюча дерегуляція Пенсійного фонду збільшує його залежність від державного бюджету.

**Ключові слова:** пенсійне страхування, Пенсійний фонд України, власні прибутки, які трансформуються в дохід, пенсії, прибутки Пенсійного фонду України.