“Investment potential of non-state pension funds in Ukraine”

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INVESTMENT POTENTIAL OF NON-STATE PENSION FUNDS IN UKRAINE

Abstract
World practice shows that non-state pension funds (NPFs) are not only a tool for supplementary pensions, but also a source of significant investment in the economy. This study aims at determining the investment potential of 65 Ukrainian NPFs currently functioning in the country. The analysis of Ukrainian NPFs has shown their insignificant role as an investment resource (the volume of their assets is 0.09% of GDP). At the same time, NPFs operate with significant funds (UAH 3.1 billion in 2019), but the lack of a developed stock market and effective financial instruments in the country narrows the opportunities for their investment activities. A study of the structure of NPF assets allocation showed that it is far from optimal in terms of investment portfolio diversification and is very conservative – almost 85% of invested NPF assets are government guaranteed securities and funds in bank deposit accounts. But in the context of tightening the requirements for disclosure of information on the activities of NPFs, promoting the stock market development, formation of reliable mechanisms to protect depositors’ pension savings, and formation of an effective investment portfolio, NPFs in Ukraine

INTRODUCTION
Non-state pension funds are an important segment of the modern financial system, performing financial, investment, and social functions. The financial function of NPFs is their ability to accumulate a significant amount of savings in the form of voluntary pension contributions and convert them into investments. The investment function is that the NPF system can form a powerful long-term investment resource, which the Ukrainian economy desperately needs. Over the years since 2005, the private pension system in Ukraine has not achieved significant success: the number of participants is only 5.3% of the labor market, the ratio of NPF to GDP is 0.1%. The current state of private pension provision in Ukraine intensified the discussion on the effectiveness of investment activities of NPFs in Ukraine and in general on the future prospects for their development. The purpose of this paper is to determine the prospects for NPFs development as institutional investors in Ukraine.

1. LITERATURE REVIEW
World experience and scientific research show that the financial resources of NPFs can be a source of domestic long-term investment. The most important task for NPFs is to preserve and increase pension reserves, and the result depends on where they are invested. The issues of NPF investment activities are studied in modern financial science
through their asset management, asset allocation and the factors influencing it, decisions on investment diversification, investment risks, and benefit protection. The general items of NPFs’ investment regulations within individual countries’ private pension system profiles are widely disclosed in OECD working papers (2019, 2008). It is obvious, that the role of the private pension provision is significant in the countries where the mature private pension plans with the defined benefit are introduced, as well as in the countries with the mandatory private pillar as a component of the pension system.

In OECD countries, NPFs’ investments are diversified both by the type of securities or monetary instruments, and within each type of investment. The NPFs’ asset allocation traditionally consists of government securities, equities and corporate bonds, shares of mutual funds, and other credit market instruments.

Jones (2017) seeks to shed light on the systematic investment patterns of private pension funds in the USA as long-term asset owners. It is shown that asset allocation decisions appear to reflect pro-rather than countercyclical tendencies, and procyclicality appears most evident in private pension funds.

The best value for diversification, hedging, and possibilities of short sales decisions for the Hungarian pension funds in the equity investments environment is assessed by Kovacs et al. (2011). The diversification is examined through the model investment portfolio hypothetical simulation. The results of the work show that international diversification provides better risk-adjusted returns only when the retrospective analysis of future market movements is made.

Slomka-Golebiowska (2015) examines the preferences of private pension funds towards closely-held firms dominating on the stock exchanges of emerging markets. The results of the study indicate that the shareholding activity of main institutional investors is not particularly diversified. As far as other funds are concerned, the investment strategy they choose is not significantly different as they basically follow the investment strategy of the two largest funds. The objects for largest private pension funds’ investments are low-cost and low-risk forms of activity, and they choose a cautious strategy with implicit confrontational actions.

The theoretical and methodological aspects of investing the assets of private pension funds in bonds are explored by Achkasova and Urum (2019). Opportunities and threats of NPFs investing in bonds on the Ukrainian stock market are discussed. The paper further develops the approach to determining the influence of various factors on the government bonds yield, in particular, domestic government bonds and corporate bonds, which is essential for improving the investment strategy for NPFs assets allocation in bonds.

In developed countries, NPFs are actively investing in alternative instruments. Since 1997, investments in bonds, stocks and cash have declined to varying degrees, while allocations to other assets (such as real estate and other alternatives) have increased from 4% to 25% (Global Pension Asset Study – 2018). Bonizzi and Churchill (2017) approve that in the current environment, pension funds are trying to reduce risks by redistributing their allocations from equities to “alternative options”, among which there are hedge funds, private equity funds, commodities, infrastructure and, sometimes, the real estate. The data shows that the importance of alternatives has certainly increased. According to Nicolas Firzli and Bazi (2014), US pension funds have doubled their exposure to private equity in 2007–2013 and had an average target allocation to private equity of 8.5% of assets under management. The allocation and investments of pension funds in real estate and their effectiveness were studied by Jung and Tran (2012). They have shown that larger pension funds are most likely to invest in real estate in domestic countries while having lower costs and higher net returns. Smaller pension funds invest primarily in real estate directly through outside fund managers and fund-of-funds, and neglect real estate listed companies.

The NPFs’ investment policy is based on the principles of reliability, liquidity, and return, with particular attention to the diversification of the investment that leads to the necessity of effective investment risk management. Considering the
high degree of investment risk and the low level of peoples’ confidence in private pension funds, the problem of protecting pension benefits at a certain level is also important in terms of NPFs investment policy. These issues are explored by Broeders and Chen (2013) who conducted a comparative analysis of the efficiency of existing security mechanisms in regulating the activities of pension funds: solvency requirements, pension guarantee fund, and sponsor support. The authors conclude that, compared to a system based solely on solvency requirements, support from a pension guarantee fund or sponsor provides better protection for pension funds pursuing an aggressive investment policy. Beneficiaries of pension funds with a conservative investment policy are more profitable in terms of solvency requirements.

The impact of the participants’ age structure on the distribution of Dutch pension funds assets is examined by Bikker et al. (2012) who used a set of data on pension funds investment plans. The conclusion is that the age has a negative impact on (strategic) equity risks: a higher average age of 1 year leads to a significant and reliable reduction of strategic equities by about 0.5 percentage points. Larger pension funds show more powerful effect of age risk.

Crossley and Jametti (2013) analyze the impact of pension guarantee that was imposed in some countries to protect private plan participants from income loss connected with the suspension of an underfunded pension plan. The research has shown that insured plans would invest more in risky assets. It was found that the insured plans invested about 5% more in shares than similar plans without payment guarantees.

According to Kabašinskas et al. (2017), the risk-return profile of pension funds is determined based on the overall statistical analysis of 26 Lithuanian private pension funds. The authors have concluded that the effectiveness of private pension funds is mainly represented by the value of net assets and use of classical risk estimates. Such an assessment shows the ability of the company management to invest the funds profitably, but does not provide an evidence-based assessment of risk and return.

The results of a study of some Dutch and Canadian pension funds regarding illiquid assets are shown in the work Jansen and Tuijp (2021). Dutch pension funds in the sample invest 15% of their portfolio in illiquid assets, while Canadian pension funds invest 34%. It is noteworthy that it is typical for a Dutch pension fund to divide assets into a portfolio corresponding to liabilities and return portfolio, which can potentially lead to crowding out of illiquid assets by the liquid assets. Liquidity management policy is used to release cash when necessary.

Due to the fact that NPF activities significantly affect the welfare of citizens not only through pension payments but also by investing in the country’s economy, one should pay attention to the ongoing debates of scholars as for the interpretation of the NPF definition from the standpoint of financial science. After all, the recognition or non-recognition of the NPF investment component and its legal framework determines the formation of an appropriate organizational and economic mechanism for regulating the NPFs’ activities. Thus, according to Goreva et al. (2015), an NPF is considered to be a non-profit institution of social security. Other researchers consider the essence of an NPF through the prism of the institutionalism theory. In particular, Novikov (2016) considers it as a financial institution of the social sphere, while Mamij (2016) – as a socio-economic institution. Golovchenko (2014) proposes to define the NPS as an institutional unit of finance. Nebaba (2015) and Smovzhenko et al. (2012) consider an NPF as a financial institution, while Jurieva and Masyuk (2017) and Istomina (2013) describe it as a financial institution with the status of a collective institutional investor. The paper by Grujić (2019) shows that pension funds provide significant support for financing the development of local communities of the country through investments in municipal bonds. Bonizzi and Guevara (2019) elaborate the relationship between financialization and private pension funds for emerging economies, and explore the potential of private pension funds to improve financialization in emerging economies.

Commending the academic achievements of scholars, it can be noted that the theoretical and applied aspects of the activities of domestic NPFs as institutional investors need in-depth research. Considering the world experience of forming and using the investment potential of the non-
state pension system, the effective management of NPF financial assets is an important prerequisite for stimulating the investment processes and attracting long-term investments in the country’s economy.

Non-state pension funds are the basis of private pension system in Ukraine. Private pension arrangements were introduced in 2004 in Ukraine (IOPS, 2009). Statistics show that the active development of the non-state pension system in Ukraine began in 2005. NPFs were created by employers for their employees, trade unions – for their members, and open funds also appeared. The dynamics of NPF were heterogeneous. During 2006–2008, there was a rapid increase in the number of registered NPFs from 79 in 2006 to 110 in 2008 (the largest number of funds during all years of activity), or by 39.2%. This can be explained by the fact that at the beginning of the non-state pension system formation, its founders were quite positive about the prospects for the development of these financial institutions and planned to start their activity. However, the following years of NPF activity showed that not all funds were able to actually start their activities or win and consolidate their positions in the market. This led to a gradual reduction decreasing from 110 in 2008 to 94 in 2012, that is, the annual decrease was 2-7 funds.

Subsequently, during 2013–2016, the reduction in the number of NPFs became even more significant – from 4 to 11 funds per year (the largest – in 2013 (13NPFs) and in 2016 (8 NPFs)). This was due to the negative influence of environmental factors – an unstable military-political situation destabilizing financial markets, as well as, indirectly, the policy of the central bank to increase the capitalization of banking institutions, which led to the liquidation of a significant number of banks with NPF deposit accounts of up to 50% of pension assets. During 2016–2017, the number of funds stabilized at 64 units, in 2018 it decreased to 62, and slightly increased to 65 in 2019. As of December 31, 2019, the largest number of NPFs (47) was concentrated in Kyiv, the rest operated in 9 regions of Ukraine.

The number of NPF depositors gradually increased during 2006–2011, from 29.4 thousand people in 2006 to 61.6 thousand people in 2011, but in 2012 there was a rapid decline in the number of individual depositors so that the total number of depositors decreased to 48.9 thousand people (-20.6%). This happened because in 2012 only one NPF received an increase in the value of a unit of pension assets above the average rate of return on bank deposits, the return of 15 funds was more than 10%, while 16 NPFs received a negative result, which reduced citizens’ trust to the NPF. During 2012–2019, according to the Accumulative Pension Market (2020), the number of depositors has been fluctuating constantly, but it gradually increased to 80.1 thousand people as at December 31, 2019 (National Commission for the State Regulation of Financial Services Markets, 2020).

The number of depositors – legal entities during all years of NPF operation was insignificant (in 2008–2016, it was 2.3-2.4 thousand people), and in 2017 it decreased to the value of 2007 – 1.8 thousand people, remained at this level in 2018 and increased to 2.2 thousand people in 2019. Considering that as of the end of 2019, there were 380.6 thousand enterprises in Ukraine, according to the State Statistics Service of Ukraine (2020), the share of NPF depositors was only 0.55%.

Also, the comparison up to the end of 2019 of the number of depositors – individual NPFs (77.9 thousand people) and the number of employees (6407.5 thousand people) (State Statistics Service of Ukraine, 2020) shows that only 1.2% of working citizens became NPF depositors. At the same time, such low rates of coverage of individuals and legal entities with participation in NPFs indicate a significant potential for the development of the funds.

Even though the share of depositors-legal entities is insignificant, the vast majority of pension contributions (90-96%) are received by NPFs from legal entities. At the same time, in recent years, the share of pension contributions from individual depositors increased from 6.6% in 2017 to 10.3% as of December 31, 2019 (National Commission for the State Regulation of Financial Services Markets, 2019).

While analyzing the dynamics of the number of NPF participants, one can see that during 2006–2013, their number was growing every year, from 193.3 thousand people in 2006 to 840.6 thousand
in 2013. Instead, in the following years (2013-2017) the number of participants was fluctuating at the level of about 834-841 thousand people and amounted to 874.6 thousand people as at 31.12.2019. This number of NPF participants can be considered insignificant, as it makes up only 3% of the population of Ukraine aged 15-64 (State Statistics Service of Ukraine, 2020a).

A significant number of citizens become members of the NPF shortly before retirement, due to which they do not have time to take advantage of all the benefits of private pension. Instead, citizens of working age are gradually losing interest in the formation of pension savings. To fix this situation, it is necessary to increase the citizens’ pension culture and trust in NPFs.

Regarding the dynamics and structure of total pension assets of NPFs, it should be noted that during 2007–2008, such assets have been formed at the expense of pension contributions of fund depositors, which is typical for the stage of early development (Figure 1). Since 2009, the receipt of profit by the funds from the investment of pension assets became an additional source of formation of pension assets. Subsequently, the trend of a gradual increase in pension assets during 2008–2012 was replaced by their accelerated growth in 2013–2014 and the crisis of 2015–2016, but since 2017, the trend of increasing the value of pension assets resumed.

Figure 1 shows that during 2006–2007, there was an accumulation of pension contributions; from 2008 to 2019, pension assets were both funded by pension contributions and by investment income received from investing pension contributions. One of the reasons for the “investment failure” of NPFs in 2015–2016 was the liquidation of a significant number of banks (17 banks in 2014, or 11% of the total number of banks, and 46 banks in 2015, or 11% (Ministry of Finance of Ukraine, 2021), which led to non-performance by some banks to return money placed by funds on deposit bank accounts, and the payment of interest. This confirms

Source: Constructed based on the data of the National Commission for the State Regulation of Financial Services Markets (2019).
the reduction in the number of funds placed by NPFs on deposit bank accounts in 2015 by UAH 173.2 million, and actualizes the issue of guaranteeing NPF deposits.

Regarding the structure of the NPFs investment portfolio in Ukraine, as of December 31, 2019, the primary areas of investment of pension assets were securities with the income guaranteed by the Cabinet of Ministers of Ukraine (45.9% of invested assets), deposits in banks (3.5%), bonds of enterprises issued by residents of Ukraine (7.5%), and shares of Ukrainian issuers (1.4%).

The analysis of the indicators of NPFs’ investment activity in Ukraine conducted in the review part of this paper shows that the non-state pension system in Ukraine has not achieved significant success in 15 years. Besides, if we compare the structures of investment portfolios of NPFs in Ukraine and other countries (Figure 2), it becomes obvious that the investment portfolio of domestic NPFs is very conservative. This difference in the areas of investment of pension assets is explained by the fact that in countries with developed financial markets, high investment income can be obtained mainly by investing in

Source: Constructed based on the data of OECD (n.d.).

Figure 2. Structures of investment portfolios of private pension funds in some countries of the world in 2018, %
corporate shares, while the return on bank deposits in such countries is low.

Comparison of the assets of accumulative and private pension funds with GDP in the world and in Ukraine also makes it possible to fully assess the development level of domestic NPFs (Figure 3).

According to Figure 3, in some countries, the assets of private pension funds exceed 100% of GDP – Denmark (198.6%), the Netherlands (173.3%), Iceland (161.0%), Canada (155.2%), Switzerland (142.4%), Australia (140.7%), USA (134.4%). At the same time, in some developed countries of Western Europe, the ratio of assets of private pension funds and GDP is not very high – these are France (10.4%), Belgium (10.9%), Italy (9.8%), Germany (6.9%), Austria (5.5%), and Luxembourg (2.7%). This fact suggests that each country has its own model of the pension system, which determines the limits of the development of NPFs. However, regardless of the reasons, the level of NPF development in Ukraine, compared to other countries, is insignificant – only 0.09% of GDP. This indicates the need for intensifying the development of NPFs in Ukraine.

2. GENERALIZATION OF THE MAIN STATEMENTS

Thus, a review of scientific publications and statistical sources characterizing the activities of NPFs as institutional investors allows making the following generalizations:
• World experience confirms that NPFs are important institutional investors in many countries and act as a source of long-term financial resources in national financial markets.

• The NPFs’ investment potential is an integrated indicator that reflects, firstly, their ability to attract free funds from depositors, and, secondly, their opportunity to place attracted investment resources in financial assets with incomes not below the market level.

• Analysis of NPFs’ investment potential in Ukraine shows a rather low level of efficiency in both its increase and use: the number of participants reached 874.6 thousand people, which is less than 3% of the population of Ukraine aged 15-70 years; the ratio of pension assets value and GDP is insignificant – only 0.09% of GDP; the structure of NPFs’ asset allocation is far from optimal in terms of investment portfolio diversification, as the majority of investments are in securities guaranteed by the government and in the banking sector, contrary to asset allocation of foreign private pension funds.

• At the same time, the dynamics of financial indicators of Ukrainian NPFs show the development of their investment potential. In particular, the reduction in the number of registered NPFs against the background of increasing the total value of funds assets indicates a gradual consolidation of the NPF market and an increase in the concentration of pension assets of funds.

• The number and share of funds whose returns exceeded the inflation rate has increased: in 2014–2015, the share of such funds and the share of their assets in the system was 2%, then in 2016–2018 these indicators were, respectively, 29% and over 85%.

• The limited set of instruments of Ukrainian NPFs to invest pension assets (currently these are fixed-income instruments – deposits and bonds) characterizes mostly the underdevelopment of the capital market rather than the low efficiency of NPF management. In addition, until February 2019, there were currency restrictions that did not allow the investment of the assets of funds outside of Ukraine.

• The gained practical experience of non-state pension institutions convincingly shows that in Ukraine, even in times of crisis, NPFs operate with relatively significant funds, but the lack of a civilized stock market and effective financial instruments in Ukraine makes it impossible to form effective investment portfolios of NPFs.

• Currently, private pension funds are new financial institutions for the vast majority of the population of Ukraine. This significantly explains the citizens’ distrust of them. Today, the state does not stimulate public confidence in the existence of a non-state pension system, which significantly narrows the NPF’s ability to increase their investment potential.

3. DISCUSSION

Currently, the existing state of the non-state pension system and the probable introduction of the accumulative level of the pension system in Ukraine this year have already intensified the discussion on the effectiveness of NPFs’ investment activities in Ukraine and further prospects for their development in general.

Since in the process of research scientists consider NPFs from different points of view (social, socio-economic, financial, institutional, investment, etc.), the discussion of the subject of research, defined by the article title, requires clarification of this concept.

The question of the economic nature of NPFs – whether the fund is a financial institution performing social functions or a social institution operating in the financial sphere – is important not only from a theoretical point of view, but is also practically significant in the field of NPF finance public regulation. After all, if funds are financial institutions, it is necessary, first of all, to control their financial condition and financial transactions, as well as control over the activities of commercial banks, insurance companies, and professional participants in the securities market.
If NPFs are mainly social institutions, then it is necessary to regulate, first of all, the social aspects of the interaction of funds with clients (primarily with individuals), while the aspects of financial regulation should be considered secondary.

The dualism of the nature of non-state pension funds is obvious, outlined by the goals and objectives of NPFs, within which there are two polar aspects: the existence of non-profit goals and, at the same time, investment activities aimed at investment income. Hence, it is logical to conclude that by acting as non-profit institutions, NPFs occupy an intermediate position between private investment companies, whose activities are aimed at maximizing profits, but, inevitably, associated with financial risks, and state-funded pension funds, whose activities are focused mainly on solving social problems. This feature reduces the maneuverability of the latter in the financial markets and leads to the incomplete use of opportunities to increase the accumulated funds of future retirees. Therefore, the special status of NPFs favorably distinguishes them from investment companies with higher financial reliability, and state pension structures with the possibility of using a favorable market situation to obtain additional investment income on invested pension funds.

Thus, it should be proposed to interpret the economic content of NPFs as a decentralized fund designed to form an individually significant level of pension provision for citizens by redistribution part of their income between the working and incapable phases of the life cycle by accumulating pension savings, maintaining and increasing their real value by investing in the financial market and making pension payments on individual terms.

Thus, an NPF is not only a social institution, but also an institutional investor, whose main purpose is to invest its own and accumulated financial resources. On the one hand, NPFs as non-profit institutions focus on social results, but on the other hand, NPFs as institutional investors are targeted at making a profit. Hence, there is the contradiction: making a profit and simultaneously achieving a social effect. In this case, the greater the amount of profit in the NPF, the more significant is the effectiveness of the fund in the social sphere. At the same time, high social significance of NPFs puts additional requirements in terms of financial stability, balance, and transparency of investment activities forward to such funds, compared to any other funds.

The uniqueness of NPFs as financial institutions should also be noted, which differs from other forms of collective investment by the possibility of investing for a long period, in particular for several decades. In developed countries, the investment horizon of such pension funds is 40-60 years. There are no other similar investors. Thus, the maximum planning period for long-term investments by banks and financial corporations is about 15 years. So, the conclusion that the NPF, by its economic nature, is a potentially powerful institutional investor is one of the important arguments against the termination of the activity of NPFs in Ukraine.

The NPF investment potential depends on its ability to attract free funds from depositors, and the opportunity to place attracted investment resources in financial assets with incomes not below market level.

The analysis of indicators of NPFs’ activity in Ukraine in the review part of the paper shows that as institutional investors with significant sources of investment resources at their disposal, they remain underdeveloped. Due to this and the beginning of the active phase of the pension reform, the opinions of experts on NPFs as powerful investors have diverged. Some experts consider their further existence to be inexpedient, because in their opinion, at present neither the population, nor business, nor the state is able and interested in creating conditions that will contribute to the non-state pension system development. Others, on the contrary, believe that under certain conditions NPFs can become an effective tool of the state investment policy.

Experts who recommend stopping the failed, in their opinion, experiment on launching a non-state pension system in Ukraine, give the following main arguments:

- the system does not contribute to attracting new participants and has not become widespread;
the population does not trust investments in non-state funds. In particular, a survey conducted by the USAID project in 2017 (USAID, 2017) showed that 54% of respondents would not like to be members of non-state pension funds. At the same time, according to the same survey, only about 6% of respondents considered themselves well-informed about the 3rd level of the pension system, and 34% knew something about such a system. The majority (53%) knew almost nothing about this system;

non-state pension funds are too expensive and do not provide the required level of profitability. The upper limit set by the regulator, 7%, is very high, and the real profitability of the system over the past five years is lower than inflation (USAID, 2019).

But the problems of NPF dissemination, trust in them, and the results of their work are not a defect of an NPF as an instrument, but a reflection of the economic and political conditions in which the funds are operating. These include the unfavorable macroeconomic situation, the lack of developed markets of the capital and secure financial instruments, low population incomes, and a lack of awareness of the necessity to save for retirement, as well as insufficient awareness of the importance of non-state pension schemes (and even lack of information on their existence).

Acquaintance with the recommendations of experts advocating the NPF termination shows that they focus on international approaches to pension policy: “Significant attention to international approaches and their adaptation to Ukrainian conditions is adjusted by the fact that their main developers are authoritative international organizations such as ILO, OECD, the World Bank being the main ideologues and strategists of modern pension and social policy” (Pyshchulyna et al., 2017). Obviously, this is the main argument of the supporters of closing down NPFs, since the private pension system does not fit into the new concept of the pension reform proposed by the World Bank, namely the creation of a state pension fund. At the same time, the creation of monopoly state institutions in countries with underdeveloped democracies and economies carries a much greater risk of inefficient use of funds and corruption. For Ukraine, a more reliable option for the pension reform is to maintain a decentralized pension system with market access for existing and new pension funds, including foreign ones.

CONCLUSION

Over the 15 years of the existence of NPFs in Ukraine, their investment activity has not achieved significant success. But under certain conditions, they can become an effective instrument of state investment policy. To increase the investment potential of NPFs, it is necessary to strengthen the requirements for disclosure of information about their activities and introduce a nationwide awareness campaign on the principles of non-state pension support, promote the development of the organized and liquid stock market, and form additional mechanisms for depositors’ pension savings protection in order to respect their rights and interests. The formation of an effective investment portfolio of NPFs provides for amending investment restrictions for NPFs at the legislative level by expanding the powers of the state body regulating NPFs activities to establish and change investment standards, since the number of investment objects should be increased, taking into account the need to diversify and hedge investment risks, and revise and improve regulations on the activities of NPFs in the field of investment.

AUTHOR CONTRIBUTIONS

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