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THE INFLUENCE OF PENSION FUNDS ON THE POLISH CAPITAL MARKET[1]

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Abstract: Open pension funds have existed on the Polish financial market since 1999. They are institutions which create this market by investing part of their members' superannuation. So, it is difficult to overestimate their significance from a social point of view. Authors have presented results of quantitative investigations of the share of pension funds in this market from 2001 to 2012. Main attention is concentrated on WSE because pension funds invest in stocks and bonds (government, municipal etc.) listed on the Polish exchange and these securities are the principal components of their portfolios.

Keywords: assets, bonds, household savings, stocks, open pension funds

INTRODUCTION

The reform of the pension system in Poland started in 1999 with the creation of open pension funds. Since then, the funds market has undergone significant consolidation. Currently, there are 14 open pension funds on the market. Still incoming contributions result in a systematic increase in assets that are invested in the capital market. On the one hand, it results in an increase of capitals set aside for future retirement benefits, on the other hand, it contributes to the development of this

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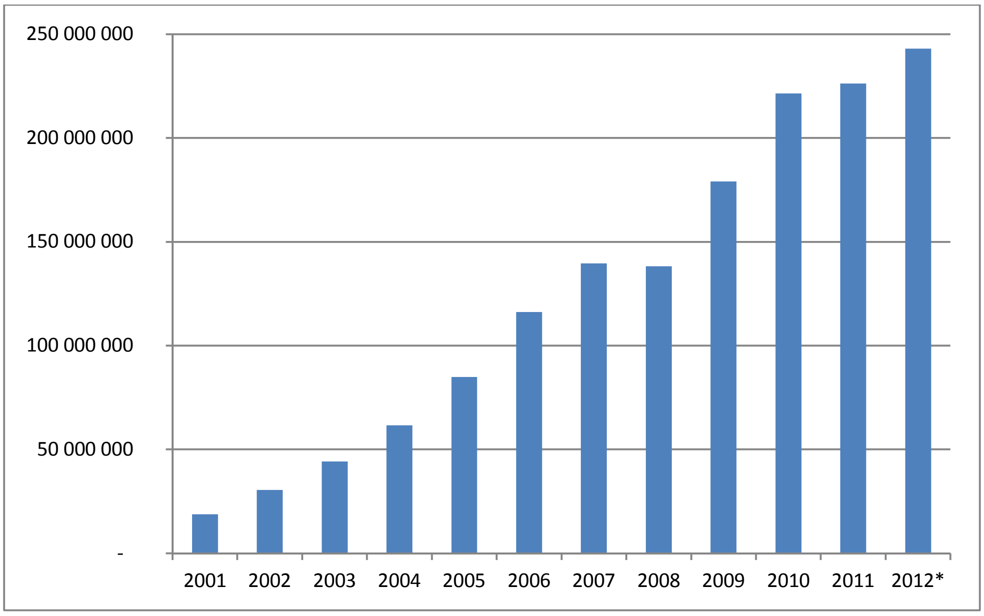
market. In this article, the second aspect of the functioning of pension funds over the years from 2001 to 2012 is shown in summary. The work is more qualitative than quantitative. No econometric or financial indicators are calculated, while the focus is on showing the importance and impact of open pension funds on government debt, savings of the society and Warsaw Stock Exchange. Quantitative approach can be found in [Chybalski 2013, s. 77-89], [Sawicz 2012, s. 306-322] as well as the comparison of open pension funds and open-end stable funds markets was done in the work [Karpio, Żebrowska-Suchodolska 2012, s. 91-110].

CHANGES OF THE ASSETS OF PENSION FUNDS

In contrast to the type of collective investment institutions of open investment funds type, pension funds have a guaranteed supply of payments. Thus, their marketing activities are aimed only at persuading individuals starting their employment to choose a particular fund, or stop existing members from changing the fund. In practice, few people consciously make a selection and rely on the result of drawing. Transfer of members is relatively small. All these factors contribute to the fact that, from the start of their activity, business assets invested in pension funds grew steadily. Changes over the years 2001-2012 are shown in Figure 1.

Figure 1. The value of open pension fund assets in thousands PLN (as of 31 December)

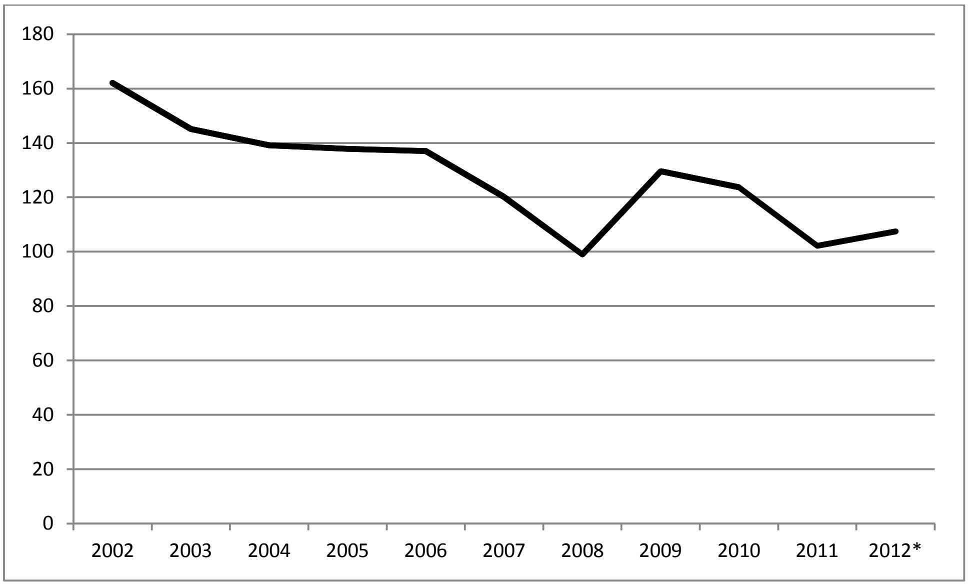


* status as of quarter 2

Source: own study based on the Financial Supervision Authority data

In absolute values, the growth of assets looks impressive, except for the year 2008 [Sawicz 2012, s. 306-322]. However, a closer look at the changes shows a slightly different picture. As it turns out, the rate of changes of assets shows a decline with a clear minimum caused by the financial crisis. In recent years, the pace of changes has undergone a significant depreciation again, primarily due to changes in the amount of transferred contributions. It should be clearly pointed out that changes in assets result not only from the amount of payments. They are also determined by investment performance. At this point, it is difficult to separate the two factors, but the influence of the latter was decisive during the outbreak of financial crisis. Dynamics of changes in the assets described with chain indices (year to year) is as follows (Graph 1).

Graph 1. Dynamics of changes in open pension fund assets (in %)

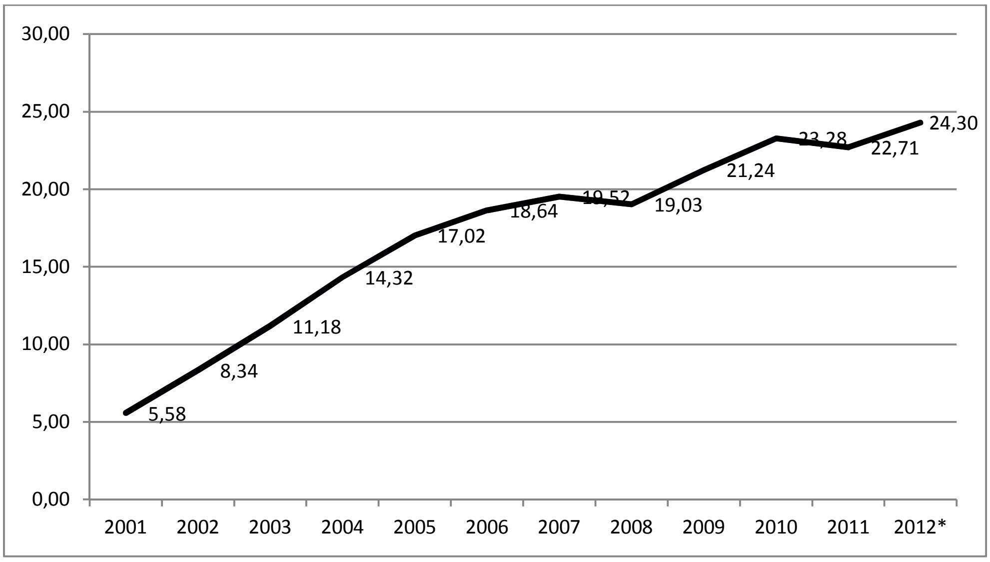


* status as of quarter 2

Source: own study based on the Financial Supervision Authority data

It can be seen that year-on-year growth rate of deposits decreased with a marked decline in the year initiating the crisis. After a short term growth, another decrease follows. This time, a large part of this decrease is caused by limited contributions transferred to pension funds. However, some optimism is introduced by a comparison of open pension fund assets with the savings of Poles [Chybalski 2013, 77-89]. As shown in Graph 2, these assets have an increasing share in the savings, and most importantly, are steadily growing.

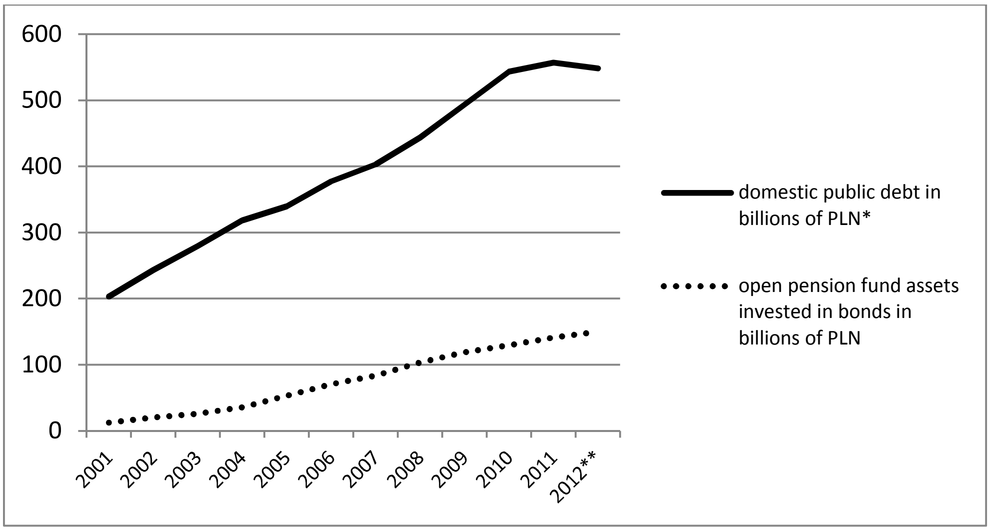
Graph 2. The proportion of open pension fund assets in the savings of households (in %)



* status as of quarter 2

Source: own analysis, on the basis of NBP, MF, GUS, TFI and PTE data

Graph 3. The value of public debt and open pension fund assets invested in bonds (in billions of PLN)



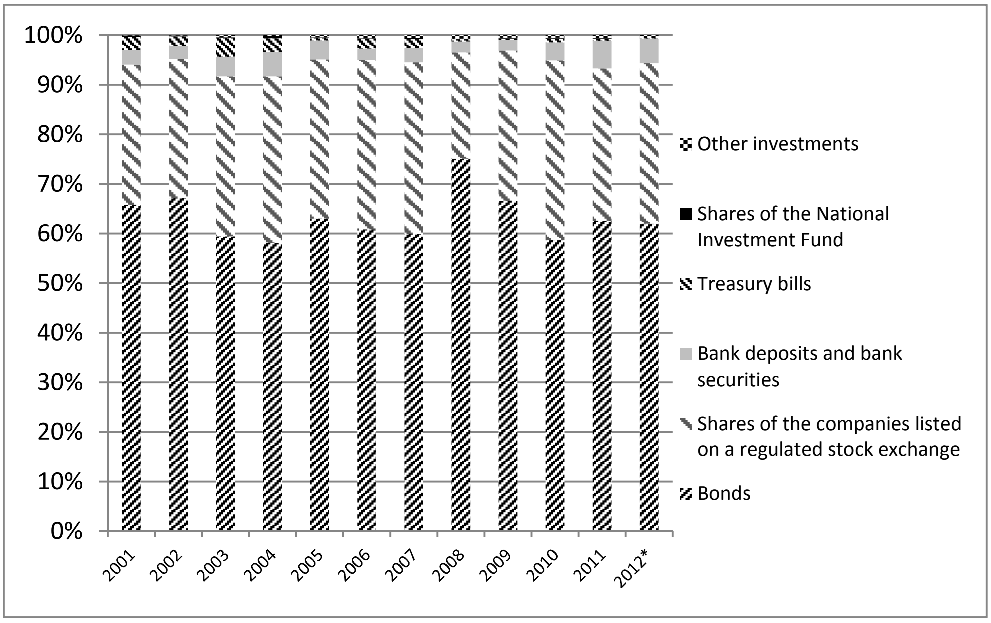
*According to the place of issue ** state as of quarter 2

Source: own study based on Central Statistical Office

It is worth noting that the crisis and reduction of the premium affected the share of assets in the savings to a small extent. Of course, it is the cumulative effect of changes in the assets of pension funds and economic conditions as well as a decline in savings as such. It is worth referring to the State's obligations to society, because it is a basic economic indicator, projecting on its credibility. First of all, an increase in public debt goes hand in hand with the increased involvement of funds in government bonds. The mutual relationship is shown by Graph 3.

Therefore, the portfolio of debt securities is a source of assets from which the liabilities of the state are financed. The truth is that it concerns payables to employees. It does not change the fact that they are not state but citizens' money. The retirement scheme is based on the need to build savings that will form the basis of future pensions. Compared to the Social Insurance Institution, the money in the open pension funds is real, and is not merely a record expressing the State's promises.

Figure 2. The structure of pension fund investment portfolios



* status as of quarter 2

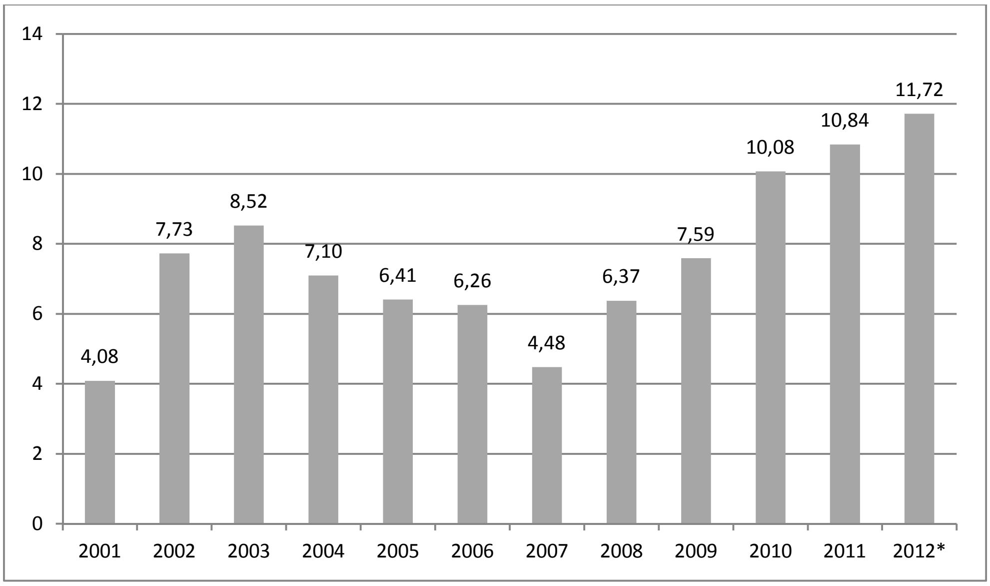
Source: own study based on the Financial Supervision Authority

OPEN PENSION FUND VERSUS WARSAW STOCK EXCHANGE

Open pension funds cannot take too much risk in their investment risk. The proportion of equities traded on the public market is limited by law to 40%. Other assets are invested in safe financial instruments, mainly in bonds (government, municipal, corporate). The structure of investment portfolios is presented as follows (Figure 2):

Depending on the year, the share of stocks is now around 30% and the bonds between 60% -70%. Therefore, these instruments form the basis of investments made by pension funds. From the point of view of the Stock Exchange, they are a major investor. Their share in the market capitalization is shown by the next figure.

Figure 3. The proportion of shares from the portfolio of open pension funds in the stock market capitalization (in %)

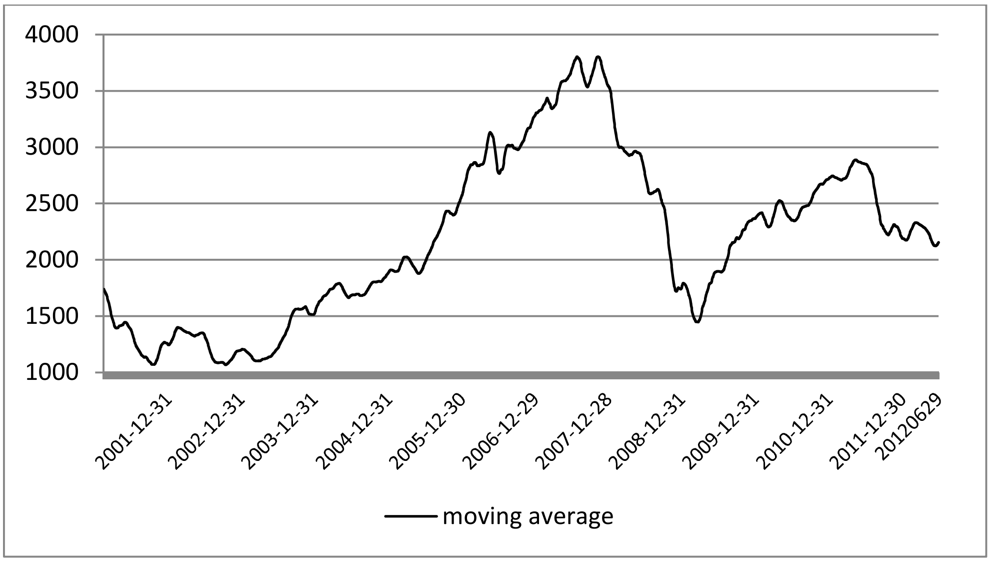


Source: own study based on the Financial Supervision Authority and the Warsaw Stock Exchange data. * status as of quarter 2

If we combine the changes in market capitalization over the years, this situation is as follows. Again, the impact of financial crisis can be observed, but as of 2008 a dynamic increase in the open pension funds in the capitalization of the Stock Exchange follows. It is so large that it cannot be ignored. Due to statutory prudential requirements, pension fund investments cannot be and are not too risky. As a result, they are limited to large liquid companies. Furthermore, the investments are not made overnight, mainly because of the scale of purchases. Assuming somewhat arbitrarily that the characteristic period of change in the portfolio is comparable with the period of payment of pension contributions, i.e. it takes place every month, the graph below shows a 30-day average of WIG 20 index.

It is clear that the share of assets invested in equities is steadily growing. What's more, the crisis has very little impact on the situation - only within one year. It can be inferred from this that pension funds are extremely important investors shaping the image of the stock market. The previous considerations show that they also influence the capital market. It can be argued that their presence has a stabilizing effect on the stock exchange trading in the sense that changes in capitalization would have been greater without the presence of open pension funds. Large variations of turnover, capitalization and price are always destabilizing factors, and, therefore, negative from the point of view of the investors and the stock exchange.

Graph 4. A 30-day moving average of WIG 20 index in 2001-2012

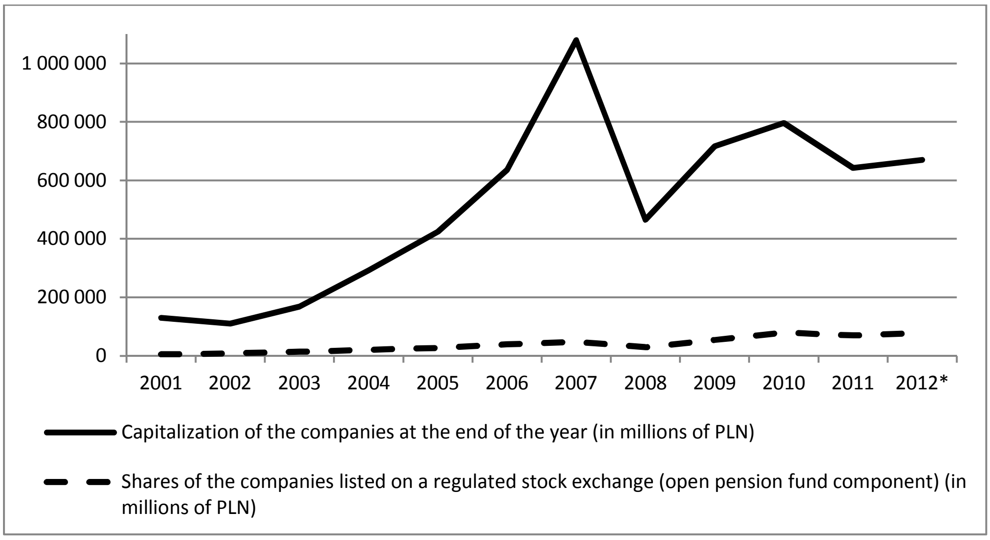


Source: own study based on the Bossa.pl

CONCLUDING REMARKS

In conclusion, one can express the hope that recent "political turmoil" around pension funds will not lead to their elimination. This would have a huge negative impact on the Polish capital market, not to mention the financial condition of future retirees. A statement issued by one of the rating agencies proves that the liquidation of the pension insurance segment would also have a negative impact on the creditworthiness of Poland, leading to an increase in the cost of raising capital on capital markets for many years. Previous sentences were written in May 2013, now it is known what is the government's decision on the future of open pension funds - they have been significantly ‘curtailed’ by the part of portfolio including government bonds. This is not a polemical work, but according to the authors, such a decision, in fact, means the liquidation of open pension funds, because it was decided that they would be prohibited to invest in some securities available in the capital market. This is unique in the world. Open investment funds can buy government bonds but not pension funds. So, how should they built a safe and relatively stable portfolio of equity securities without bonds, as elementary Markowitz model must take into account so-called risk-free instruments, usually identified with treasury bonds?

Graph 5. Shares of the companies that form a component of open pension funds as compared to the capitalization of the Warsaw Stock Exchange



Source: own study based on the Financial Supervision Authority and the Warsaw Stock Exchange data. * status as of quarter 2

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