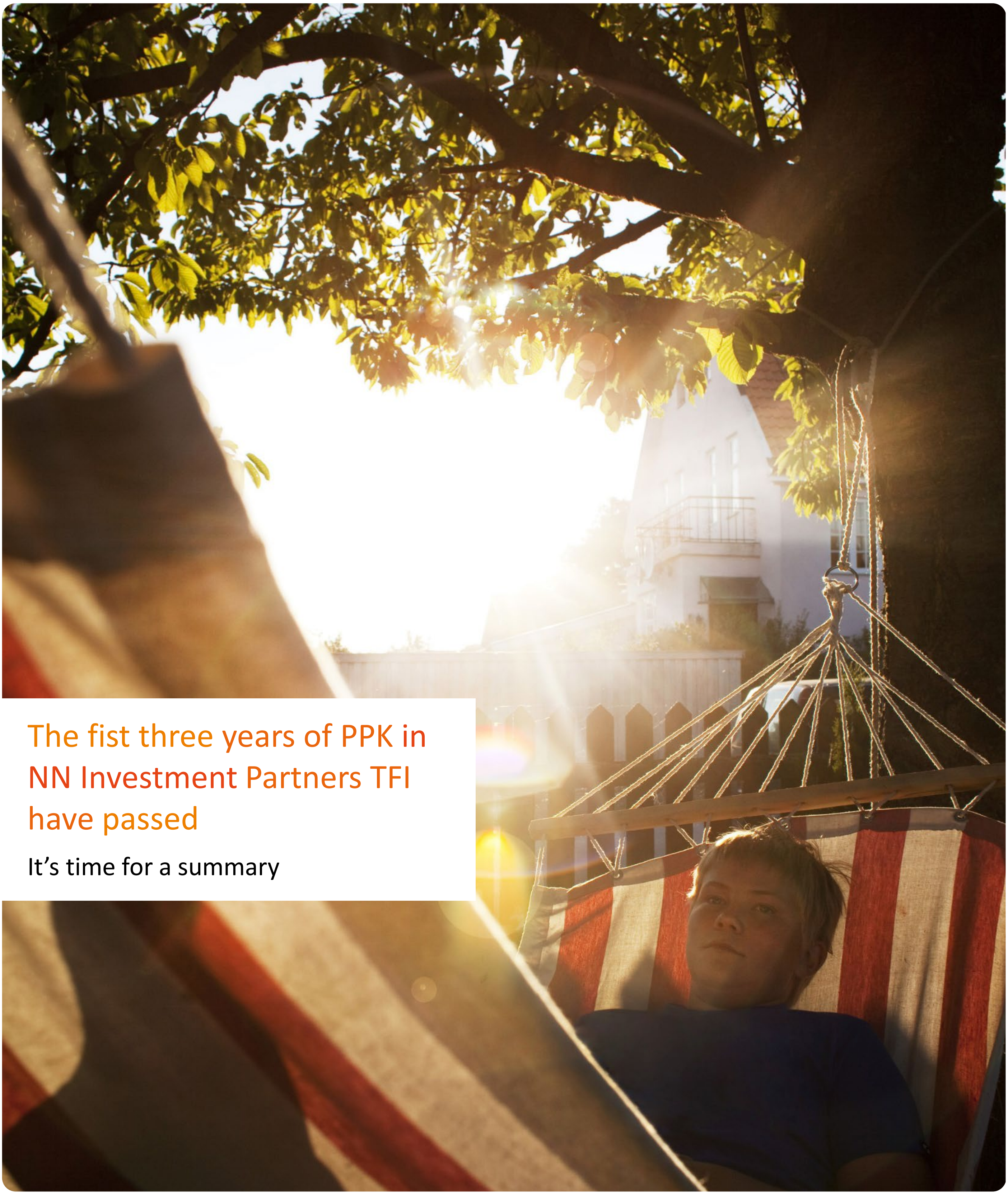


The fist three years of PPK in NN Investment Partners TFI have passed

It’s time for a summary

What are PPK and how do they work?

Aa a reminder

Employee Capital Plans (**PPK**) are a long-term investment scheme designed specifically for employees.

The scheme is co-financed. Employee invests an amount equivalent to 2% of their gross remuneration, employer adds the amount equivalent to 1.5% of remuneration, and the state credits the account with a welcome bonus amount of PLN 250 and an additional PLN 240 per year. To simplify, for each PLN paid in by an employee another one is added by the employer and the state.

Deposits are made to a private account of the employee from which they are invested in Target-Date Funds (**TDFs**).

The target date can be found in the fund's name and represents the estimated time of retirement.

A brief history

PPK were launched in the Fall of 2019. The majority of domestic investment fund companies (**TFI**) joined the scheme as institutions managing funds and launched Target-Date Funds.

Until 2021, the Plans were gradually being expanded to include an ever wider range of enterprises and employees. Initially, only small amounts were being invested in TDFs, however now increasingly larger amounts are being regularly invested, which allows to take advantage of the economies of scale.

How do PPK funds invest the money

PPK take advantage of valuable conclusions drawn from the 100-year-old history of global capital markets. Investing generates the best results when fixed amounts are regularly invested in a diversified portfolio.

In the long-term, the majority of the portfolio should be comprised of stocks that entails a higher risk, but provide an opportunity for higher rates of return.

As the target date for the disbursement of funds draws near, portfolio risk should be limited and bonds should represent an increasingly higher portion of the portfolio.

Specific regulations

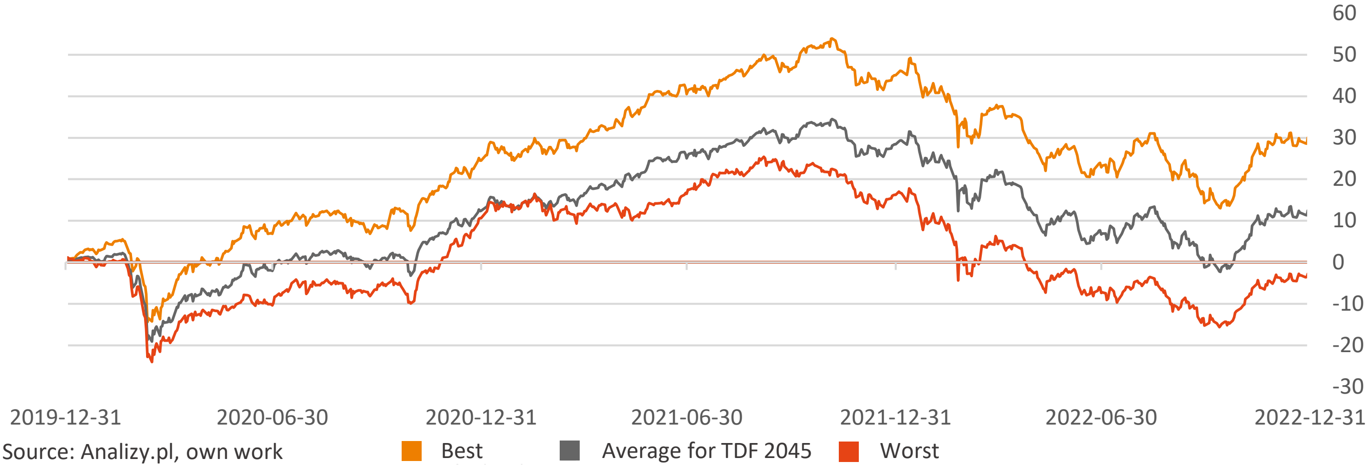
What funds can invest in is regulated in detail in the Act on Employee Capital Plans, for instance:

- what portion of the portfolio should be represented by Polish stocks,
- what are the allowed proportions between large, medium-sized and small companies in the portfolio,
- what portion of the portfolio may be invested on foreign markets?

The rules are established, but allow for some flexibility. That is why the results may vary considerably between various institutions as soon as after three years.

A range of possibilities możliwości

On the example of TDF 2045, lets check how much the results generated by the funds may differ within one group. The graph shows how the rates of return developed in the years 2020-2022 for the best and worst fund, and the average result for this category. Investment policies are similar, but over a three-year period the difference between funds on the opposite ends of the spectrum exceeds 30 percentage points, where one earned more than 29% and the other lost 3%.



Source: Analizy.pl, own work

Market situation and performance of the funds

Exceptionally difficult start

There is not another instance of such a fruitful 3-year period in the entire history of the capital market. PPK launched in the Fall of 2019. This means that the first investments in Target-Date Funds were made just before the outbreak of the global pandemic. It was an event that caused sudden drops on stock exchanges and in TDF portfolios. However, the mass economic shutdown did not scare investors for long and the markets bounced back.

When in mid-2020 the world was learning to live with the COVID-19 pandemic, central banks and governments were facing against economic consequences. On the one hand, interest rate reductions had a positive impact on bond pricing, while on the other they helped to improve the condition of businesses. As regards the latter, governments were also helping by implementing aid packages for businesses and consumers. Therefore, markets continued to grow until the end of 2021.

However, a more liberal approach of governments to the pandemic combined with a mixture of lax fiscal and monetary policy started to translate into price hikes. Fearing that inflation may spiral out of control, the largest central banks and, even before them, the National Bank of Poland started interest rate hike cycles. This put a damper on the investors' sentiments.

Higher interest rates mean more difficult access to more expensive financing for businesses and a drop in the value of previously issued bonds. Therefore, Target-Date Funds entered the year 2022 with negative sentiments. The situation got even more complicated after the outbreak of the war in Ukraine.

The exclusion of Russia from international trade has contributed to a sudden increase in raw material prices, including energy prices, which has further driven the price spiral that started during the pandemic period and created an argument for raising interest rates even higher.

2022 – a year without precedent

The accumulation of unusual events meant that in 2022 shares and bonds in Poland and worldwide recorded significant drops.

The Polish WIG index dropped in total by 17%, whereas the US S&P 500 index dropped by 19%. The emerging markets did not avoid the market decline either – the largest declines in stock exchange indices were observed in Asia.

It is usually the case that a weaker year for shares is compensated by bond results. That is why portfolios are comprised of these two classes of assets.

The previous year, however, was unprecedented, as bonds and bond funds also recorded decline. Suffice it to say that the last time the largest US equity and bond markets in the world were both on a downtrend at the same time was in... 1969.

With high inflation here and now and the expected recession around the corner, equity and bond markets have been in a downtrend for most of 2022 virtually all over the world. The last quarter was an exception. Persistent and ever-rising inflation has eased somewhat, at least in the United States. So the markets began to think that the US central bank would slow down the pace of interest rate hikes and maybe end the whole cycle a little earlier than expected in the middle of the year. This had a positive impact on global equities and bonds in the fourth quarter and on fund returns.

When assessing the investment results of Employee Capital Plans, it is worth taking into account the environment in which they had to operate.

The year 2022 is behind us – a culminating year of downtrends on equities, bonds and commodities price increases.

Why did this happen and what awaits the markets in 2023?

A cycle ends, a cycle begins

For many years, the world has not seen high inflation, so central banks have maintained very low interest rates. This favoured the economy, equities and bonds.

Inflation for everyone

After tackling Covid and the outbreak of war in Ukraine, all prices started to rise worldwide. This is due to the demand stoked up after the pandemic and ever-increasing prices of commodities.

Hawks are coming

That is why central banks around the world have finally started to raise interest rates. Some faster (NBP), others slower (Fed), but the goal is clear – to fight inflation. It's a difficult task. If you overdo it, you knock the economy out. If you're late, inflation will kick in for good.

A new chapter

The fight of central banks against inflation has led many economies to the brink of recession and contributed to downtrends on the equity and bond markets. What next? Inflation is stabilizing and it is our opinion that the recession in Poland and worldwide will not be so severe. The markets have reached the inflection point at the end of last year and have entered a new chapter in 2023.

How did the funds do

The events described here have affected the performance of NN Emerytura Target-Date Funds to a varying degree in the last three years.

Naturally, funds with a closer maturity date and a larger share of bonds in the portfolio remained more stable during that period and ultimately recorded smaller drops at the end of 2022.

For funds with a more distant maturity date and a larger share of equities and foreign market instruments, the volatility in prices and drops were higher in the previous year.

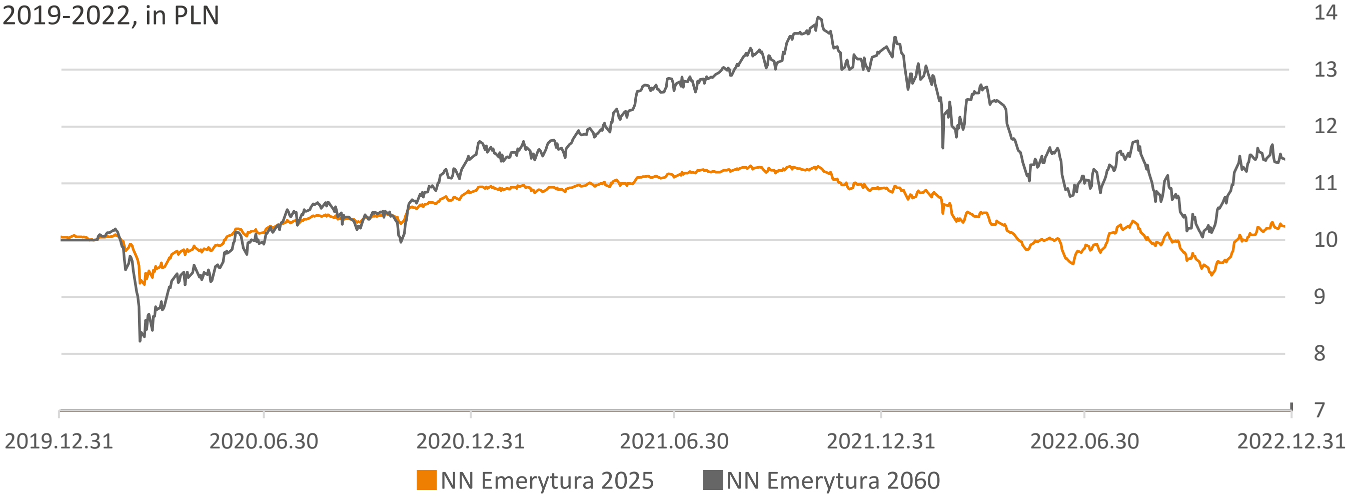
These differences are well illustrated on the chart presenting the value of investment certificates of NN Emerytura 2025 and 2060.

Rates of return for NN Emerytura funds

Fund	Stopa zwrotu w %			
	2022 r.	2021 r.	2020 r.	From the beginning
NN Emerytura 2025	-6,0	0,7	8,1	2,6
NN Emerytura 2030	-8,4	6,1	6,9	4,1
NN Emerytura 2035	-10,0	9,2	7,4	5,8
NN Emerytura 2040	-11,3	12,2	8,6	8,5
NN Emerytura 2045	-12,5	14,6	7,4	8,1
NN Emerytura 2050	-13,5	16,3	6,7	7,8
NN Emerytura 2055	-13,4	15,9	7,5	8,3
NN Emerytura 2060	-13,8	16,6	14,2	14,8
NN Emerytura 2065*	-14,0			-6,4

*NN Emerytura 2065 was launched on 17.02.2021 r.
Source: NN Investment Partners TFI, own work

Chart presenting the value of class A shares of NN Emerytura 2025 and NN Emerytura 2045 funds in the years 2019-2022, in PLN



Source: NN Investment Partners TFI, own work

A hard test for PPK

For the majority of those participating in PPK, the last three years are only the beginning of the pre-retirement investment.

The choice of photograph on the title page is not accidental. Markets were experiencing significant "swings" in recent year. However, this turbulent period can be treated as a viability test for PPK, which was passed by most TDFs with a positive rate of return.

This confirms the rule that the key to success in investing is regularity. Furthermore, a sufficiently long investment horizon allows to not pay much attention to temporary turbulence and rest easy.

What next?

Investors can be certain that good years on the markets will alternate with much worse periods.

However, in the long term, participants of well-managed, diversified equity and bond funds benefit from a simple fact – the world economy, with small breaks, is constantly developing. Emerging markets are catching up to developed ones, giants from the Silicon Valley come up with groundbreaking products and services again and again. And states and companies have issued and will continue to issue bonds for which there will be buyers.

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Information about NN Emerytura Specjalistyczny Fundusz Inwestycyjny Otwarty and its sub-funds as well as investment risk connected with them, prepared in the Polish language, has been included in the Information Prospectus available at the registered office of NN IP TFI and on the website at www.nntfi.pl, and in Key Information for Investors and Information for a customer of an alternative investment fund, available at the registered office of NN IP TFI and on the website at www.nntfi.pl (https://www.nntfi.pl/informacje-i-dokumenty/dokumenty-funduszy/prospekty-informacyjne). Information on the rights of investors, prepared in Polish, can be found in the Information Prospectus available at the registered office of NN IP TFI and on the website at www.nntfi.pl (https://www.nntfi.pl/informacje-i-dokumenty/dokumenty-funduszy/prospekty-informacyjne).

The Investment Certificates of NN Emerytura SFIO sub-funds may be acquired exclusively as part of employee capital plans operated under an agreement on the management of the employee capital plan concluded with NN Emerytura SFIO.

NN Emerytura SFIO sub-funds may invest more than 35% of their assets in securities issued, secured or guaranteed by the Treasury.

Due to the high volatility of prices of financial instruments in which the assets of individual NN Emerytura SFIO sub-funds are invested, the net asset value of those sub-funds, in particular during their initial period of operation, may be highly volatile.

The allocation of assets of individual NN Emerytura SFIO sub-funds between asset classes characterized by different levels of risk varies over time and will be made in accordance with the principle of gradual change of this allocation from instruments with the highest level of risk to more conservative instruments with a lower level of risk as the Sub-fund approaches its Sub-fund Target Date, specified separately for each individual Sub-fund.

For the administration and management of individual NN Emerytura SFIO sub-funds, NN IP TFI collects a remuneration the rates of which change as sub-funds reach specific maturity periods.