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THE GLIDE-PATH MECHANISM IN EMPLOYEE CAPITAL PLANS

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1. Introduction

The regulatory landscape of pension funds in Poland continues to become ever more complex. One of the most significant changes in the Polish pension market is the introduction of Employee Capital Plans (ECP). This new form of occupational pension plan is featured by auto-enrolment and investment policy based on the glide-path mechanism (Kolek et al. 2020).

Auto-enrolment, which is designed to cover people having no access to any occupational pension programme, is bringing millions of workers into a private pension plan based on capital funding, many for the first time (Szczepański 2017; Kolek and Sobolewski 2019).

This puts a special burden on the ECP system – to invest capital of individual ECP participants in the most responsible way. Adoption of the glide-path mechanism in the investment policy of the ECP funds is one of the ways of fulfilling this duty.

The glide-path represents the fund's changing mix of investments. Over the years, the ECP fund adjusts allocations to the equity portion and the debt portion. When ECP participants are young, the asset mix is more growth oriented. This means the dominance of the equity portion. When ECP participants get older and their retirement date nears, the ECP fund's investment portfolio "glides down" to a more conservative mix of investments. This means the dominance of the debt portion. This fairly new concept has not been fully analysed in the literature. There are a limited number of publications mentioning this new way of conducting investment policy (Ge 2019; Sołdek and Stachnio 2018; Melicherčík et al. 2015; Krawiec 2014, 2015). But the glide-path mechanism in ECP funds has never been analysed. Moreover, there are a very limited number of publications on ECP system, both in local literature (Jedynak 2019; Fijałkowska et al. 2019; Wrzesiński 2019; Kolek and Sobolewski 2019; Wojewódka 2019; Jakubowski and Prusik 2019) and in the international literature (Ociepa-Kicińska and Dawidowicz 2018; Naczyk 2019; Pobłocka and Dybał 2019;). It is because the ECP system is quite new. It began operation on July 1st, 2019 and it is still at the stage of introduction. The system will be fully implemented in 2022. Thus, there is need to describe and analyse the new concept of the glide-path mechanism and the way it has been implemented in the new ECP system.

The purpose of this research is to analyse the regulatory landscape for the glide-path mechanism implemented in the ECP system. To achieve this research objective the method of critical legal dogmatics and the economic analysis of law method were employed.

2. Debt portion and equity portion of an ECP fund's portfolio

The investment policy of an ECP fund is determined by all levels of regulations. The most important and the most universal regulation for the ECP fund's investment policy is to be found in the act of 27 May, 2004 on investment funds and alternative investment fund management (the IF Act 2004). In principle, an ECP fund follows the investment limits for open-end investment funds (art. 42 para. 1 of the ECP Act). The specific provisions that bind only the ECP funds are set in the act of 4 October, 2018 on Employee Capital Plans (the ECP Act 2018) One of the most important regulations, specific only for ECP funds, is a division of their portfolio into an equity portion and a debt portion (art. 2 para. 1 point 1 and 2 of the ECP Act).

2.1. The debt portion of the investment portfolio

The debt portion of the ECP fund's portfolio may be invested in:
- money market instruments,
- bonds, treasury bills, mortgage bonds, deposit certificates,
- other transferable securities incorporating debts,
- bank deposits,
- vanilla derivatives,
- selected non-standardised derivatives (providing underlying asset is an aforementioned debt instrument),
- units of investment funds (providing half of their portfolio is invested in aforementioned debt instruments) (art. 2 para. 1 point 1 of the ECP Act).

Pursuant to art. 37 para. 11 of the ECP Act the debt portion of ECP fund's investment portfolio is divided into two parts. At least 70% of the debt portion must be invested in securities issued or guaranteed by the Polish Treasury, the National Bank of Poland or a local government unit. This part of the debt portion may be also invested in securities issued or guaranteed by central governments or central banks of EU states, the European Central Bank, the European Union or the European Investment Bank. Also, securities issued or guaranteed by selected international organisations (the European Economic Community, the International Monetary Fund or the Bank for International Settlements) (Marcinkowska 2009, p. 234) might be included in the debt portion of ECP fund's investment portfolio, providing these instruments have an investment-rating provided by one of the biggest rating agencies (S&P, Fitch, Moody's or DBRS). In order to maintain liquidity, an ECP fund is also allowed to hold cash deposits in banks or credit institutions. The cash deposits are also included in the 70% part of the debt portion.

The remaining 30% of the debt portion can be invested in other debt instruments (art. 37 para. 11 point 2 of the ECP Act). This means that no more than one-third of debt portion might be invested in money market instruments, corporate bonds, mortgage bonds, deposit certificates, other transferable debt securities, other debt derivatives or other units of investment funds, providing these instruments have an investment-rating from one of the biggest rating agencies. Debt instruments without an investment-rating can constitute no more than 10% of the debt portion of the ECP fund's investment portfolio.

There is very small group of scholars raising doubts as to whether the ECP capital should be used to fund the public debt (Oręziak 2016, 2019; Hrynkiewicz and Szukalski 2018; Kalina-Prasznic 2019). They argue that ECP funds shouldn't be allowed to invest in Polish Treasury Bills in the same way as Open-end Pension Funds are forbidden to. The majority of scholars point out that the Polish debt market is too shallow to exclude Treasury Bills from the investment portfolios of ECP funds (Dybał 2017; Jedynak 2018; Jakubowski 2019; Szczepański 2013, 2015, 2019; Kolek and Sobolewski 2019; Wojewódka 2019; Jakubowski and Prusik 2019; Chybalski 2018; Chybalski and Marcinkiewicz 2018).

2.2. The equity portion of the investment portfolio

The equity portion of the ECP fund's portfolio may be invested in:
– shares,
– pre-emptive rights,
– allotment certificates,
– subscription warrants,
– depositary receipts,
– other transferable securities incorporating property rights,
– vanilla derivatives,
– selected non-standardised derivatives (providing the underlying asset is the aforementioned equity instrument),
– units of investment funds (providing half of their portfolio is invested in aforementioned equity instruments) (art. 2 para. 1 point 2 of the ECP act).

Pursuant to art. 37 para. 13 of the ECP Act the equity portion of ECP fund's investment portfolio is divided into several parts. At least 40% of the equity portion must be invested in blue-chip stocks. To be more precise, shares, pre-emptive rights, allotment certificates and other equity instruments issued by the biggest companies quoted on Warsaw Stock Exchange (WSE) and which are quoted on the Warszawski Indeks Giełdowy 20 (WIG20). Art. 37 para. 13 point 1 of the ECP Act also includes derivatives on these instruments and derivatives on the WIG20 index.

Pursuant to 37 para. 13 point 4 of the ECP Act, at least 20% of equity portion must be invested in foreign equity instruments (shares, pre-emptive rights, allotment certificates, derivatives, etc.) quoted on stock exchanges located in OECD countries. Both the 40% and 20% limits are minimum limits. It means that up to 80% of the equity portion may be invested in the equity instruments issued by the 20 biggest companies quoted on the WSE or derivatives of these instruments. On the other hand, up to 60% of the equity portion may be invested in equity instruments quoted on stock exchanges located in the OECD countries. Together, just these two classes of assets may constitute 100% of the equity portion.

But ECP fund is also allowed to invest in medium-sized and small-sized companies quoted on the WSE. Pursuant to art. 37 para. 13 point 2 of the ECP Act, an ECP fund is allowed to invest in shares, pre-emptive rights, allotment certificates and other equity instruments issued by the medium-sized companies quoted on the WSE and included in the Warsaw Stock Exchange Index of 40 medium-sized companies (mWIG40). This limit also includes derivatives of these instruments and mWIG40 index. The limit for these equity instruments is no more than 20% of the equity portion. As opposed to the limits to the WIG20 equity instruments and foreign investments, this is the maximum limit. The ECP fund is not allowed to buy more shares of medium-sized companies.

The ECP fund is also allowed to buy shares of small-sized companies quoted, or soon-to-be quoted, on the WSE . Pursuant to 37 para. 13 point 3 of the ECP Act, the ECP fund is allowed to invest no more than 10% of the equity portion in shares, pre-emptive rights, allotment certificates and other equity instruments issued by small-sized companies in Poland. Just like the limit on medium-sized companies, this is also the maximum limit. The ECP fund is not allowed to buy more shares of small-sized companies.

Regulations shaping the equity-portion are much more controversial than the regulations shaping the debt-portion. First, the ECP fund investments on the local bourse are strongly directed towards the blue-chips included in the WIG20 index. This index is dominated by state-controlled enterprises as defined by Bałtowski and Kozarzewski (2016). Only 8 joint-stock companies included in the WIG20 are not under control of the state. These are LPP S.A., Santander Bank Polska S.A., NG2 S.A. (former CCC Obuwie S.A.), CD Projekt S.A., Cyfrowy Polsat S.A., mBank S.A., Orange Polska S.A., Play Communications S.A. The remaining 12 companies are state-owned or state-controlled enterprises. According to the official information from December 31st 2019 – the State Treasury holds 29.43% of PKO BP S.A. shares, 27.52% of Polski Koncern Naftowy ORLEN S.A. shares, 34.19% of PZU S.A. shares, 32.8% of Pekao S.A. shares , 31.79% of KGHM Polska Miedź S.A. shares, 71.88 % of PGNiG S.A. shares, 31.94% of Alior S.A. shares , 55.16% of Jastrzębska Spółka Węglowa S.A. shares, 53.19% of LOTOS S.A. shares, 40.45% of TAURON S.A. , 51.52% of ENERGA S.A. shares. Together these companies comprise more than 70% of the average weight of the WIG20 index. Thus, forcing an ECP fund to invest 40% and more of the equity portion into WIG20 companies should be considered as directing ECP capital into state-controlled enterprises. In this way, the ECP system is used to increase the state's impact on the Polish economy and to expand economic nationalism in Poland (Flores-Macias and Musacchio 2009; Kozarzewski et al. 2019). The declared objective of this is to enhance, in the long run, the Polish State's economic capacity, international importance and even reindustrialisation (The Strategy for Responsible Development 2017). Thus, the role of local equity investments of ECP capital is significant, especially in recapitalizing of the so-called "national champions" – the biggest and the most valuable state-controlled enterprises. In this respect, the state itself is the indirect beneficiary of ECP capital accumulation and local equity investments of ECP funds.

The regulations concerning foreign equity investments also raise some doubts. According to statutory provisions, foreign investments into equity instruments are not limited by the size of a company at all. In consequence, the ECP fund has no barriers for financial support of foreign small-sized companies. This is a stark difference to the harsh limits on investments in Polish small-sized companies. This loop-hole in regulations on foreign equity investments allows the mechanism of the purposeful placing of initial public offerings (IPOs) on the most liberal stock exchanges located in the OECD countries and transferring ECP capital to small-sized companies owned by selected people (e.g. friends and acolytes of the governing party). This creates the conditions for the proliferation of cronyism (Hellman et al. 2003; Jasiecki 2013; Kozarzewski and Bałtowski 2019). Economic entities from the outside of the public sector may benefit from facilitated access to ECP capital at the expense of local companies and local financial institutions. This means a higher investment risk for ECP participants and lower chances of development for local financial markets.

The threats of economic nationalism and cronyism are additionally magnified by the domination of state-controlled financial institutions (ECP providers) on the ECP market. On December 31st, 2019, after half a year of functioning of the ECP market, the total value of assets accumulated in ECP funds reached 84.7 mm zł. 48.3% of these assets were gathered by state-controlled financial institutions (Kolek 2020). PKO TFI gathered 28.7 mm zł, PZU TFI gathered 9 mm zł, Pekao TFI gathered 3.1 mm zł, Pocztylion-Arka PTE gathered 60,000 zł, PFR TFI gathered 1,500 zł. The dominance of the state controlled ECP providers is another major threat for the proper functioning of the ECP market.

Non-state controlled ECP providers that failed to gather a sufficient number of ECP participants are likely to quit the market. ECP providers driven exclusively by profits are discouraged by the high administrative costs of functioning on the ECP market (Wojewódka 2020). High economic barriers to enter this market will push away potential new entrants and petrify low competition between ECP providers. A similar process took place in the Open-end Pension Funds market in the noughties and teens of 21st century (Banaszczak-Soroka and Jakubowski 2011).

In the near future we will probably see that domination of state controlled ECP providers creates a feedback mechanism. In this scenario, state-controlled ECP providers may direct a growing amount of ECP capital into state-controlled companies and even into private entities that have connections inside the governing party.

3. The Glide-path mechanism

The ECP fund has a target-date that roughly (+- 5 years) coincides with the year of the participant's anticipated end of their professional career and their retirement. In order to provide target-date funds to all generations of ECP participants, ECP providers must manage at least 8 target-date funds. Right now, these are: target-date 2025 fund, target-date 2030 fund, target-date 2035 fund, target-date 2040 fund, target-date 2045 fund, target-date 2050 fund, target-date 2055 fund and target-date 2060 fund. Some of the ECP providers also created a target-date 2020 fund and a target-date 2065 fund. The target-date in the ECP fund is the approximate date an investor reaches 60 years of age and acquires the right to benefits from an Employee Capital Plan.

The ECP fund investment policy is based on the glide-path mechanism. The glide-path represents the fund's changing mix of investments. Over the years, the ECP fund's managing company (ECP provider) adjust allocations to the equity portion and the debt portion. When participants are young and further from retirement, the asset mix is more growth-oriented (domination of the equity portion). As the participant's target retirement date nears, the ECP fund "glides down" to a more conservative mix of investments and reduces the amount of equity over time in its portfolio (dominance of the debt portion). This is due to the changes in the risk tolerance of ECP participants.

The three key decisions in building the glide-path are: the percentage for the equity portion of the portfolio, the final equity portion landing point, and the rate at which the equity portion declines in a portfolio. The glide-path also needs to take into consideration the participants' need for future growth and their tolerance for volatility during their retirement.

Table 1. Equity portion, debt portion and room for the discretionary investment policy – % of ECP fund's assets

Age of ECP participant	Equity portion	Debt portion	Room for the discretionary investment policy
18 to 40 years old	from 60% to 80%	from 20% to 40%	20%
41 to 50 years old	from 40% to 70%	from 30% to 60%	30%
51 to 55 years old	from 25% to 50%	from 50% to 75%	25%
56 to 60 years old	from 10% to 30%	from 70% to 30%	20%
60 and more years old	from 0% to 15%	from 85% to 100%	15%

Source: art. 40 para. 1 of the ECP Act.

Pursuant to art. 40 para. 1 of the ECP Act, for the first 22 years, ECP funds' glide-path provides between 60% and 80% equity exposure (equity portion of the portfolio). The rest is typically invested in debt instruments (debt portion of the portfolio). This changes when the target-date is 20 years away. The next stage lasts only 10 years and equity exposure is from 40% to 70%. This changes when the target date is 10 years away and equity exposure is lowered to between 25%

and 50%. For the last 5 years before the target date, the equity exposure is from 10% to 30%. At the target date, the equity exposure is lowered to between 0% and 15% and remains stable for the rest of the ECP fund existence.

This shape of the glide-path leaves some room for a discretionary investment policy. During the first 22 years, 20% of the ECP portfolio can be invested either in equity or debt instruments. From 10 to 20 years to the target-date, the latitude for discretionary investment policy is the widest at 30% of the ECP portfolio. In the following decades, it systematically declines. Between 5 and 10 years to the target-date, the freedom for a discretionary investment policy is still wide at 25% of the ECP portfolio. In the last 5 years before the target date, the room for a discretionary investment policy is lowered to 20% and at the target date, it falls to just 15% of the ECP portfolio.

Thanks to the wide freedom for a discretionary investment policy, ECP funds can function either as to-target-date funds or through-target-date funds. To-target-date funds maintain a static asset allocation once a participant reaches the target date (he or she is 60 years old). This approach is useful for the ECP participants that want to cash out the accumulated capital as soon as they reach the age of 60.

Through-date-funds continue to gradually ease back on equity exposure through the first ten- or twenty-years post target-date. This approach is useful for the ECP participants that want to slowly decumulate ECP capital. This aims to address the needs of ECP participants who are exposed to longevity risk. The assumption behind target-date funds with a "through" glide path is that ECP participants should adopt a consistent long-term strategy that adjusts asset allocation well into retirement (International Labour Organisation 2019). Increasing life expectancy forces many ECP participants to maintain earnings potential from significant equity exposure – in order to avoid the prospect that an ECP participant might outlive his or her savings (Bielawska 2019).

The rationale for equity exposure even after reaching the target date is the high long-term earnings potential. On average, equities have historically generated stronger investment returns than debt instruments over the long term, albeit with higher volatility (Bielawska 2017). While it's not unusual for equities to underperform compared to debt instruments or other assets for relatively short periods, equities have a historical record of outperforming them over time. This is especially important for those ECP participants who reached their target date (60 years of age) and are being paid out their money for the next 10 years in monthly instalments (Jakubowski 2020).

It's worth noting that the glide path statutory regulations are so well designed that the majority of ECP providers just duplicate these stipulations. Only Nationale-Nederlanden ECP refined these regulations and introduced a smooth glide path that changes on a quarterly basis (Nationale-Nederlanden 2019). The further analysis of Key Investor Information Documents (KIID) issued by ECP funds leads to the conclusion that ECP providers don't use the full potential of the ECP investment policy. All ECP providers miss the opportunity to emphasise socially responsible investments and green investments. It is inadvisable to create narrow and detailed statutory regulations that promote these types of investments. The statutory regulations should be general enough to leave some room for a discretionary investment policy. It is the ECP providers who should grasp the opportunity and use the lowers rank regulations (statues of individual ECP funds) to direct ECP capital into green and socially responsible investments. In more developed and mature pension markets, these types of investments are a meaningful incentive for the accumulation of pension capital and an important factor during the selection of a pension plan (Dopierała et al. 2020).

3. Conclusion

The Glide-path mechanism makes an ECP fund a single and easy-to-use investment vehicle for participants who lack financial literacy and need professional management of their retirement assets. But the target-date fund approach in the ECP system also creates possibilities for financially experienced ECP participants. They have a chance to manage their ECP capital in a more personalised way. Art. 45 of the ECP Act provides ECP participants with the right to conversion of target-date funds' units. This means that ECP participants can transfer their ECP capital from one target-date fund to another – providing these funds are managed by the same ECP provider and the minimum transfer is not less than 10% of ECP participant's capital. In consequence, ECP participants can change and even spread their ECP capital among 10 different ECP funds. The right to transfer ECP capital to another target-date fund would be one of the biggest advantages of participation in the ECP system, providing it was also accompanied by the right to change the ECP provider. Denying this right to financially experienced ECP participants, who accumulate capital in state controlled ECPs, is a major disincentive. In consequence ECP participation among financially experienced workers is low (Instytut Emerytalny 2019).

In conclusion, it should be stated that in the era of incoming technological singularity (Kurzweil 2005), it is impossible to outline the pattern of growth for the global economy in the next 50 years. This means a universal formula for the glide-path mechanism for ECP funds does not exist. Thus, it's of great importance that statutory provisions leave room for discretionary investment policy. The regulations of the ECP Act do that quite well.

At the same time the glide-path mechanism implemented in the ECP funds strongly protects the interests of financially illiterate participants of the ECP. Increasing the share of the debt portion in ECP fund's portfolio lowers the investment risk and protects the accumulated capital of ECP participants. For financially experienced ECP participants the glide-path mechanism is not problematic. They are aware of their rights and they know how to transfer their ECP capital to other ECP funds. It is the regulation of investment limits that is flawed and needs to be liberalised.

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