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*How to effectively encourage Poles to save  
for retirement?  
The use of achievements of behavioural economics  
in the construction of Employee Capital Plans*

*Summary*

The research problem undertaken in this study concerns, in particular, assessment of the effectiveness of solutions based on behavioural economics that will be implemented in Employee Capital Plans (ECP; in Polish: pracownicze plany kapitałowe—PPK) in the scope of achieving widespread popularity of voluntary pension savings and stimulating the desired amount of voluntary retirement savings. The research goals are realized on the basis of a meta-analysis of research conducted in the countries where behavioural incentives in stimulating voluntary retirement savings have already been applied. The conclusion is that applying behavioural solutions, such as automatic enrolment, could potentially contribute to increasing the universality of additional savings for retirement. The effectiveness of the ECP in stimulating additional savings in the desired amount, however, is limited. It was also indicated that the potential of behavioural economics in ECP has not been fully utilized. In particular, this concerns the absence of a mechanism

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of automatic escalation of the premium and the lack of any behavioural incentives after reaching the retirement age.

**Key words:** employee capital plans, corporate pension plans, behavioural nudges, voluntary retirement savings

## *Introduction*

The majority of contemporary pension schemes in developed countries are inadequate in terms of provided benefits, and the growing size of the pension gap exacerbates this problem (Chybalski, 2016; Aviva, 2016; OECD, 2017; Jedynak, 2017). In an attempt to counteract the consequences of these phenomena, policymakers in many countries take action to stimulate the development of additional voluntary forms of retirement savings (Rutecka, 2014; Jedynak, 2016; Marcinkiewicz, 2018). It turns out, however, that traditional neoclassical-based economics and the rational choice theory solutions designed to encourage people to save for retirement voluntarily (such as fiscal and economic incentives or legal and institutional regulations or education) are not effective.

In this situation, one observes the increasing importance of solutions derived from behavioural economics and the behavioural life-cycle hypothesis. These concepts assume that, in addition to factors taken into account during standard calculation of utility, certain psychological factors also have a significant impact on people's saving habits. Recently, this trend has also received wider interest in Poland, which is reflected in the adopting the Law on Employee Capital Plans (Ustawa, 2018). The intention of the policymakers was to create a mechanism that—thanks to the use of tools based on behavioural economics—contributes to the growth of the savings rate in Poland and increases the popularity of voluntary retirement savings among Poles.

The planned introduction of ECP prompted the author to consider its potential impact on the level of additional retirement savings in Poland. The research problem undertaken in this study concerns, in particular, assessment of the effectiveness of solutions based on behavioural economics that will be implemented in ECP in the scope of (1) achieving widespread popularity of voluntary pension savings in Poland, and (2) stimulating the desired amount of voluntary retirement savings. The fact that ECPs were introduced only recently (the Law on Employee Capital Plans came into force on 1<sup>st</sup> of January 2019) means that there is a lack of empirical data, thus it is impossible to conduct comprehensive statistical research for the Polish market. In this situation, the answer to the research problem is provided based on a meta-analysis of research conducted in the countries where behavioural incentives have already been applied in stimulating voluntary saving for retirement. Thus, the study is based mainly on analysis of the features of ECP and a synthesis of the conclusions derived from this analysis in the light of international experience. Therefore, the article concludes on the *potential* efficiency of behavioural solutions applied in Poland, not the actually observed one.

### *Employee Capital Plans—the major assumptions*

From a formal point of view, an employee capital plan is a legally regulated, state-supported, quasi-mandatory mechanism of long-term group accumulation of savings for retirement purposes, operating within the funded pension system (Jedynak, 2018). The intention of the creators of ECP was to develop an attractive alternative to the existing employee pension programs (EPP; *pracownicze programy emerytalne—PPE*), which—thanks to the use of innovative solutions derived from behavioural economics—would convince Poles to save voluntarily for retirement and would contribute to a universal system of retirement savings' accumulation. The most important features that characterize ECP from the point of view of the analysed problem are presented in Table 1. The principles of the functioning of ECP have been analysed in more details in recent studies by Balcerowski and Prusik (2018) and Kolek and Wojewódka (2017).

**Table 1. Selected features of employee capital plans**

Feature	Comment
Quasi-mandatory character	Foundation of an ECP is obligatory for all employing entities (micro-entrepreneurs are excluded from this obligation, provided that all its employees submit the relevant declarations). These entities have to automatically enrol all employees under 55 to the ECP (auto-enrolment), however, employees have the right to withdraw from the ECP at any time (opt-out option). Employees who opt out of the ECP will be automatically re-enrolled in the program every four years (auto-re-enrolment). Employees aged 55–70 will not subject to automatic enrolment and will be entitled to join the ECP on request.
Participants	ECP participants are employees who receive remuneration which is treated as the basis for calculating contributions to obligatory pension and disability insurance. This includes employees, persons performing outwork, members of agricultural production cooperatives, members of supervisory boards, and natural persons performing work on the basis of an agency agreement, contract of mandate, or other contract for the provision of services.
Method of foundation	The employer is required to select one ECP product offered by financial institutions that participate in the ECP scheme. The employer should conclude an ECP management contract with this institution. In the next step, on behalf of and for the benefit of the employees, the employer concludes separate contracts with the financial institution and with the employee.
Forms of saving and investment policy	Savings in the ECP are collected in investment funds or pension funds offered by financial institutions allowed to offer services to ECP schemes, i.e. investment fund companies, general pension societies (PTE), employee pension companies (PTE) and insurance companies which fulfil the criteria defined in the Act. The investment policy of the financial institutions managing the assets of ECP is to be based on the concept of target-date funds. This means that by default the funds collected by the ECP participant are invested in a fund with a defined investment horizon that is relevant to their age. On request, each participant may, however, transfer all or some of his funds to another fund managed by the same financial institution.

Table 1. Cont.

Feature	Comment
Contributions, matching contributions, and subsidies	<p>Funds in the ECP come from three sources:</p> <ul style="list-style-type: none"> <li>– contributions financed by the employee,</li> <li>– contributions financed by the employer (matching contribution),</li> <li>– subsidies financed from Labour Fund resources.</li> </ul> <p>In the case of contributions financed by employer and employee, there are two types of contributions: an obligatory basic and a voluntary additional one. The basic contribution financed by the employer and employee is respectively 1.5% and 2% of the employee's remuneration. For a participant whose salary is lower than 120% of the minimum wage, the basic contribution paid in a given month by the employee is between 0.5% and 2% of remuneration. The amount of the additional contribution financed by the employer and employee is no higher than 2.5% and 2% of remuneration, respectively. Basic and additional contributions paid by employee and employer are calculated and transferred to the ECP by the employer.</p> <p>Subsidies financed from Labour Fund resources have the form of annual subsidies in the amount of 240 PLN. A one-off welcome payment of 250 PLN is also granted to each new participant of the ECP.</p>
Withdrawal of funds	<p>Funds accumulated in the ECP can be withdrawn before retirement:</p> <ul style="list-style-type: none"> <li>– up to 25% of funds in the case of a serious illness of a participant, participant's spouse, or child;</li> <li>– up to 100% of funds to cover a participant's own contribution to the purchase of residential real estate (with the obligation to return within max. 15 years);</li> <li>– up to 100% of the funds in the form of a transfer payment (to a participant's other ECP; in the event of the participant's death, to the IPA<sup>a</sup>, ECP or EPP of the entitled person; in the event of divorce, to the ECP of the entitled person).</li> </ul> <p>After reaching the age of 60, the ECP participant is allowed to:</p> <ul style="list-style-type: none"> <li>– withdraw up to 25% of the funds in a single payment and the rest of the funds spread over at least 120 monthly instalments;</li> <li>– apply for payment in the form of a marriage benefit in 120 monthly instalments (100% of the participant's funds if both spouses are older than 60);</li> <li>– make a transfer payment of 100% of funds to an insurance company for periodic or lifetime benefits.</li> </ul>
Taxation and tax incentives	<p>The following solutions relate to the taxation of contributions to ECP:</p> <ul style="list-style-type: none"> <li>– the contributions financed by the employer are not included in the base for calculating contributions to obligatory pension and disability insurance;</li> <li>– the basic and additional contributions financed by the employer are taxable income for the employee;</li> <li>– the contributions financed by the participant are deducted from the net salary;</li> <li>– the contributions financed by the employer are a deductible cost;</li> <li>– the welcome contribution and the annual subsidies are exempt from personal income tax;</li> <li>– investment returns are exempt from capital gains tax;</li> <li>– transfer payments and withdrawals are exempt from personal income tax (a payment of 75% is not taxed only if the instalments are spread over least 10 years).</li> </ul>

<sup>a</sup> IPA—Individual Pension Account (indywidualne konto emerytalne—IKE).

Source: Author's own elaboration on the basis of Ustawa (2018).

### ***Application of behavioural approach in Employee Capital Plans***

As was mentioned in the introduction, the achievements of behavioural economics, in particular the behavioural life-cycle hypothesis, have been successfully implemented for several years in designing solutions aimed at stimulating voluntary retirement savings. So far, the tools of behavioural economics have been used in the construction of comprehensive occupational pension plans, among others, in Germany (the Riester Rente since 2002), New Zealand (the KiviSaver since 2007), the USA (the 401(k) plan since 1998), and the United Kingdom (occupational pension programs since 2012). The ECP which is currently implemented in Poland also reflects the idea of applying conclusions drawn from studies of behavioural economists in economic policy.

Looking more closely at how the achievements of behavioural economics are used to stimulate voluntary saving, Thaler and Sunstein (2008, pp. 103–131, cited after Pieńkowska-Kamieniecka, 2017, p. 16) identify three main channels of influence on decision-makers: 1) changing the architecture of choice; 2) changing the reference system (framing); and 3) providing appropriate incentives (nudges). Analysis of the provisions of the draft of the ECP Act leads to the conclusion that all of these channels are used in the design of the ECP system.

Undoubtedly, the most characteristic and key feature of the ECP is the change in the architecture of choice. Instead of the traditional solution, for which the saver chooses whether he wants to join the pension plan (opt-in), which is sometimes complemented by forcing a decision-maker to make a binary decision to join or not to join the program (active decision), ECP applies the automatic enrolment mechanism. This pattern, which is one of the most striking examples of what Thaler and Sunstein (2003) call “libertarian paternalism”, is based on the assumption that the majority of people have limited volitional and intellectual abilities, and therefore policymakers should suggest the most appropriate solutions for them. It is commonly agreed (e.g. Benartzi, Thaler, 2007) that automatic enrolment counteracts the risk aversion and inertia of decision-makers (postponing difficult decisions for later, procrastination), which usually come hand-in-hand with a lack of financial competence. The elimination of undesirable behavioural biases, however, is not the only advantage of automatic enrolment. By changing the point of reference, this mechanism also triggers the so-called status quo effect (Samuelson, Zeckhauser, 1988, pp. 8–11). This means that after being enrolled in the program, the participation becomes a new reference point for the decision-maker and he becomes reluctant to change it because it would require him to take the initiative.

The automatic re-enrolment mechanism influences decision-makers similarly to automatic enrolment. In addition, it is also designed to avert decision-makers’ myopia. The myopia effect results from an inability to correctly estimate the cost of living in the future (Blake, 2006, p. 237, cited after Pieńkowska-Kamieniecka, 2017, p. 14). Its main consequence is that most people fail to accurately distribute their income across their life. It is worth noting that myopia is often associated with low wages, thus it affects mainly the poorest.

Empirical studies conducted mainly on the US market (Madrian, Shea, 2001; Choi et al., 2004, 2006; Mitchell, Utkus, 2004; Thaler, Benartzi, 2004; Benartzi, Thaler, 2007; Beshears et al., 2011) indicate the positive effects of introducing the automatic enrolment mechanism in occupational pension plans. The following effects have been observed: 1) the participation level in such plans is higher than in opt-in programs and active decision programs; 2) participants join such plans sooner; and 3) automatically enrolled participants withdraw from the plan only slightly more often than participants of traditional programs. After Thaler and Benartzi (2004, p. 169), it must be noted, however, that automatic enrolment may lead to a reduction in the savings rate of participants because, when joining (being enrolled in) the program, participants usually choose (or do not change) the default contribution rate. For many of them, this default is lower than the contribution rate they would have chosen if had faced with an independent decision in opt-in programs (Madrian, Shea, 2001; Choi et al., 2004). So again, both the inertia effect, and procrastination are observed here. A detailed study of the advantages and disadvantages of automatic enrolment is provided by Szczepański (2017, p. 430). He points out that in countries where such programs are applied, they bring about the intended effects: an increase in the level of participation, and the growth of capital accumulated in the form of voluntary retirement savings.

When discussing changes in the choice architecture applied in ECP, it should be clearly noted that the purpose of auto-enrolment and auto re-enrolment is not to simplify the life-cycle income allocation optimization problem. In fact, as decision-makers may opt out of ECP and choose other forms of saving, the problem remains virtually unchanged. The primary goal of the discussed behavioural tools is to facilitate the making of good decisions by people who do not have adequate knowledge and financial competence.

According to behavioural economists (Thaler, Benartzi, 2004, p. 171), an important feature of plans with automatic enrolment is the possibility to withdraw from the program at any time. This is also included in the ECP. It turns out that the mere awareness of the option to withdraw from the program at any time in the future leads to a significant reduction in the opt-out ratio. Again, the inertia effect works here: if possible, the decision-maker postpones difficult decisions until later or does not make them at all.<sup>2</sup>

Another example of applying the conclusions drawn from behavioural economics in ECP is the deliberate reduction of investment possibilities. ECP participants do not need to make decisions about asset allocation as, by default, they are signed up for the target-date fund appropriate for their age. The findings of behavioural economists suggest that—mainly due to aversion to ambiguity and the availability heuristic—the widest possible range of choices offered by the neoclassical economy is sometimes misleading for the decision maker. It turns out that the wide range of options may lead to the postponing

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<sup>2</sup> It is worth noting here that the Polish pension system reform of 2014 did not take into account the freedom of choice to withdraw from Open Pension Funds. It introduced time-limited transfer windows, and the sub-account in ZUS was set as the default option. This resulted in a higher percentage of employees remaining in OPF than if opting out of the sub-account were made possible at any time.

of decisions (procrastination) or simplification of the decision-making process. Madrian and Shea (2001) and Iyengar, Huberman and Jiang (2004) showed that there is a negative correlation between the number of available investment options and the participation rate in voluntary occupational pension plans. Similar conclusions were drawn by Choi et al. (2009a) and Beshears et al. (2013), both of whom showed that simplifying employees' decisions about asset allocation (by presenting the default option) has a positive effect on the participation rate. Benartzi and Thaler (2001, 2007) and Choi et al. (2006) came to the conclusion that simplification of the investment selection process counteracts naive diversification strategies.

An interesting remark on the application of the behavioural approach in ECP can also be made with regard to matching contributions (the part of the contribution financed by the employer) and direct subsidies (supplementary payments from the Labour Fund). On the one hand, matching contributions and subsidies, similarly to tax incentives, are solutions based on neoclassical economics. In the face of market imperfections and lack of access to full information, they intend to increase the utility of retirement savings and thus to be a significant incentive for rational decision-makers.<sup>3</sup> On the other hand, matching contributions and subsidies also have some beneficial behavioural implications.

Firstly, in combination with automatic enrolment, the matching contributions and subsidies system draws on the endowment effect (ascribing a higher value to things considered as owned) and loss aversion. At the moment of (automatic) enrolment in the ECP, the participant becomes the "owner" of the right to subsidies from the Labour Fund and the right to contributions financed by the employer. In this situation, opting out of the program means that he loses these rights. According to the prospect theory of Kahneman and Tversky (1979), the value of this loss is perceived to be significantly higher than the respective gain of the same subsidies when considering joining the program. Therefore, the cumulative effect of automatic enrolment and additional payments is that the participant receives a serious nudge to stay in the program.

Secondly, apart from these effects, the impact of the one-off welcome contribution on saving decisions is also based on the phenomenon of hyperbolic discounting, which means that decision-makers perceive the future value of money to be well below its actual value and considerably overestimate its current value (Frederick, Loewenstein, O'Donoghue, 2002, pp. 366–367). Thus, while ECP participants do not put a high value on future matching contributions and subsidies, they appreciate the immediate benefit by assigning a high value to the welcome contributions. It is worth noting that another heuristic is also applicable to the welcome contribution. Although the actual benefit of the welcome contribution takes place no sooner than at retirement (or if the funds are withdrawn), ECP participants perceive it as an immediate benefit thanks to mental accounting.

Thirdly, matching contribution and subsidy schemes are generally less complex than systems of tax exemptions and incentives. From the behavioural perspective, this means

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<sup>3</sup> Although, one can point out here that even a rational decision maker might not react to such an incentive if his disposable income is too low.

that they are easier to present and explain to potential participants who, knowing the principles of pension plans, have less risk aversion and are more willing to decide to start saving (Hardcastle, 2012, p. 9). This claim certainly applies to Polish conditions: for the median saver, it is easier to understand ECP's mechanism of matching contributions and subsidies than to comprehend the complex incentive systems of EPP, IPA and IPSA (individual pension savings account; indywidualne konto zabezpieczenia emerytalnego—IKZE), all of which require knowledge of the tax system.

Börsch-Supan (2004, pp. 136–137) found that budget subsidies and contributions co-financed by employers are usually not sufficient incentive to participate in voluntary occupational pension plans. This has also been proved by the Polish experience with IPA, IPSA and EPP (Rutecka, 2015, pp. 72–75). On the other hand, the authors of the OECD report *Financial Incentives and Retirement Savings* (OECD, 2018) claim that in general non-tax financial incentives as well as tax incentives are effective in rising retirement savings. It is worth noting, however, that according to this report the additional effect of an employer matched contribution when it is combined with automatic enrolment is modest. Furthermore, it has also been found that the impact of additional payments on national savings is limited (OECD, 2018). To summarize, one can state that thanks to the additional payments, ECP participants have more incentives to enrol in the program and then to stay in it (in particular after automatic enrolment). The cost efficiency of matching contributions and subsidies remains, however, an open question which needs to be investigated in detail.

From the behavioural perspective, the ECP uses, albeit only to a limited extent, the results of mental accounting (Shefrin, Thaler, 1988; Choi et al., 2009b) and the so-called IKEA effect<sup>4</sup> (Norton et al., 2012). With regard to mental accounting, there are two noteworthy issues: 1) low marginal propensity to consume funds mentally accounted as future income and funds for retirement (and therefore funds accumulated in ECP) has a positive impact on maintaining the decision to participate in the program; 2) the division of the contribution into separate parts paid by employer and employee means participants mentally account as additional retirement savings only the contribution they make themselves. This results in a higher total rate of additional savings. The IKEA effect is reflected in giving the participant the freedom to choose the contribution rate (within established limits) and to opt-out of the program. Thanks to this solution, employees who independently determine the amount of the contribution are more involved in the program and, in line with behavioural theory, they more appreciate the benefits of ECP.

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<sup>4</sup> The IKEA effect means that consumers give a disproportionately high value to products they help to create. The name of the effect comes from the Swedish furniture manufacturer, which sells products that require self-assembly. The issue of using the IKEA effect in voluntary retirement savings systems through an appropriate communication strategy is widely discussed in Van Zyl and Van Zyl (2016).

### ***The unexploited potential of the behavioural economy***

In the light of the theoretical analyses acknowledged in the previous section and the descriptions of international experience available in the Polish literature (Pieńkowska-Kamieniecka, Ostrowska-Dankiewicz, 2013; Szczepański, 2017; Bednarczyk, 2018), the application of behavioural instruments to encourage employees to participate in ECP gives the author justified hope that this new program will effectively affect the stimulation and popularity of voluntary retirement savings in Poland. When analysing the ECP from a behavioural perspective, however, it is also necessary to point out some areas in which the achievements of behavioural economics have not been fully exploited.

In this context, the lack in ECP of the automatic escalation of contributions, as was postulated by Thaler and Benartzi (2004, p. 171; 2013 p. 1152), needs particular attention. Automatic escalation means that the contribution rate is increased in the future by a predetermined value which is usually related to an increase in remuneration. The need to automatically increase the contribution rate is justified by the negative consequences of the inertia effect and of procrastination. According to Thaler and Benartzi, the declared (or selected as default within the automatic enrolment) contribution rate is generally not changed by the participant during the term of the program. This leads to a situation in which the actual savings are lower than the savers' capacity and willingness. These observations were confirmed by Choi et al. (2004), who showed that although the majority of 401(k) plan participants in the US think they are saving too little, in reality they take no action to change it.

Automatic escalation contributes to solving the problem of insufficient savings thanks to two factors. Firstly, the increase of the contribution rate does not take place at the time of the decision but at a fixed moment in the future. Thanks to hyperbolic discounting, this leads the decision-maker to underestimate the value of foregoing future consumption (consumption in the future appears to be less valuable than consumption today). As a result, the decision-maker more willingly accepts the contribution increase. As Benartzi and Thaler (2013, p. 1152) note, self-control is easier when it concerns the future, not the present. Secondly, linking the planned contribution rate rise to an increased remuneration significantly reduces aversion to loss, which is one of the main reasons for the low level of retirement savings. This is because contributions increase along with someone's remuneration, so the program participant does not notice his salary fall. Therefore, the increase in the retirement savings rate under automatic escalation is not considered in terms of loss or reduction of disposable income. Importantly, not only theoretical studies but also ex-post empirical analyses of pension plans with automatic escalation clearly indicate the effectiveness of this mechanism in stimulating voluntary retirement savings (Thaler, Benartzi, 2004, pp. 171–179; Benartzi, Thaler, 2013, pp. 1152–1153).

Besides the automatic escalation, an area of ECP where the potential of behavioural economics is not fully utilized is the design of the decumulation phase. The ECP gives participants too much freedom as to how their savings are disbursed. This raises concerns over whether, due to overconfidence and the illusion of control, participants will act

irresponsibly and myopically (make one-off payments of the maximum possible amount and payments of the remaining amount spread over the minimum required number of instalments). In most cases, such proceedings will, of course, result in very low retirement income after savings from the ECP have been exhausted. From a psychological point of view, such behaviour is explained by 1) a perception of one-off payment as a large amount compared to a small stream of retirement income; 2) estimation of the risk of premature death as greater than the risk of longevity. In addition, there may also be significant altruistic motives and/or a desire to cover current expenses (Sieczkowski, 2015a, p. 97). A potential solution to this problem based on behavioural economics might be to change the choice architecture by making lifetime annuity the default option (Blake, 2006, p. 242). An alternative, as Sieczkowski (2015a, p. 98) proposed, is setting a minimum monthly income which, when guaranteed, allows participants to freely spend the rest of their retirement savings.

Finally, it should be noted that the effectiveness and efficiency of behavioural nudges depend on a number of socio-economic factors and the entire pension system. A detailed analysis of these factors was carried out by Sieczkowski (2015b), who indicated the following ones as significant: the wealth of a society and the level of disposable income, the social policy model, the pension system architecture, the tax incentives system, education and financial training, the sale and marketing of voluntary pension plans.

## *Conclusion*

In the face of the pessimistic forecasts regarding future replacement rates, it is necessary to stimulate voluntary retirement savings in Poland. Despite the fact that state-promoted retirement instruments (IPA, IPSA, EPP) have been functioning for over ten years, they have not significantly affected the rate of retirement saving in Poland. International research does not show that Poles have less foresight or fewer predispositions to save than other nations (Szczepański, 2017, p. 424). It should therefore be assumed that in Polish conditions the economic and fiscal incentives applied so far are not enough to encourage voluntary retirement savings. The undertaken educational activities also seem to be ineffective. In this situation, a solution to the low level of retirement savings can and should be sought in behavioural economics.

The synthesis of the conclusions formulated in the course of the presented research suggests that ECP in its proposed form will contribute to the popularity and level of voluntary retirement savings in Poland. Due to the aforementioned multitude of external factors that affect the effectiveness of behavioural nudges, there is, however, no guarantee that solutions that have been tested successfully in other countries will similarly effective in Poland. In particular, one should take into account the weakened trust of the society to the whole public pension system which is a result of several pension system reforms performed over the last couple of years. Mainly the transfer of part of the funds accumulated in privately managed Open Pension Funds to Social Insurance Institution have undermined the confidence in state organized pension schemes. Thus, one of the greatest challenges

that faces ECP is to convince future retirees to participate in the program. In the face of the poor financial knowledge of Poles and their general lack of retirement consciousness, in this situation the combination of automatic enrolment with state subsidies and employer matching contribution seems to be a solution that will effectively help to achieve this goal. One can doubt, however, whether the incentives and nudges in ECP are able to convince Poles to accumulate savings at the level higher than the minimum participation rate.

In the light of the analysis performed in the last section, it should also be noted that the application of behavioural economics in ECP has not been fully exploited. The effectiveness and efficiency of the program could be higher if it included an automatic escalation mechanism. It is also regrettable that the legislator did not incorporate behavioural incentives for ECP participants after reaching the age of retirement.

Finally, it is worth noting that the biggest advantage of the behavioural solutions seems to be their beneficial effects on encouraging less sophisticated participants to take the right decision by joining the pension scheme, whilst allowing flexibility of choice for those with more financial competence. It is also worth remarking that from the state's point of view, the implementation of such solutions is usually much cheaper than the classic alternatives, such as subsidies, matching contributions, and tax incentives.

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### ***Jak efektywnie zachęcić Polaków do oszczędzania na emeryturę? Dorobek ekonomii behawioralnej w konstrukcji pracowniczych planów kapitałowych***

#### ***Streszczenie***

Problem badawczy podjęty w opracowaniu dotyczy oceny skuteczności rozwiązań opartych na ekonomii behawioralnej, które zostały wdrożone w pracowniczych planach kapitałowych (PPK) w zakresie osiągnięcia powszechności dobrowolnego oszczędzania na cele emerytalne oraz stymulowania dobrowolnych oszczędności emerytalnych w pożądaną wysokość. Przyjęte cele badawcze zrealizowano na podstawie metaanalizy badań przeprowadzonych w krajach, w których już zastosowano behawioralne zachęty do pobudzenia dobrowolnych oszczędności emerytalnych. W konkluzji stwierdzono, że zastosowanie rozwiązań behawioralnych, takich jak mechanizm automatycznego zapisu PPK, może przyczynić się do zwiększenia powszechności dodatkowego oszczędzania na emeryturę. Skuteczność PPK w zakresie stymulowania dodatkowych oszczędności w pożądaną wysokość jest jednak ograniczona. Wskazano również, że potencjał ekonomii behawioralnej w PPK nie został w pełni wykorzystany. W szczególności dotyczy to braku mechanizmu automatycznej eskalacji składki oraz braku zachęt behawioralnych po osiągnięciu wieku emerytalnego.

**Słowa kluczowe:** pracownicze programy kapitałowe, bodźce behawioralne, dodatkowe oszczędności emerytalne