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INTRODUCTION

Changes accompany people in almost every area of personal and professional life and due to them the society has a chance to develop and make use of own or organization's potential. Many types and classifications of changes can be distinguished as they differ in source, nature, scope or scale (see section 1.1). Despite the fact that changes are nothing new nowadays, the pace of their implementation definitely is. Late responses to changing surrounding can be very costly and the effects of such delays can be irreversible (Mastyk-Musiał 1995). This relates mainly to organizations operating in a turbulent environment where change is both an opportunity and a threat (Drucker 1995). Managers and scientists who realized that the future cannot be longer perceived as the continuation of the past or even the present, began to pay special attention not only to the implementation of changes but also to the process of managing them. In such a way they contributed to the development of the change management concept which has been gaining a growing popularity in recent years.

Change management is a complex and multidimensional process (see section 1.2). It consists of problems of an economic, psychological, social and technical nature. Change management is about preparing and implementing changes in such a way so as to weaken or completely eliminate factors counteracting changes and strengthen those supporting them (Mikołajczyk 1997; Tien 2012). As generally a change results in a completely new reality, it is usually accompanied by uncertainty, fear and risk. The interesting fact is that their level depend more on the perception of the change process by its participants than on the change content. Despite the fact that the resistance towards transformation process is something natural which should be even expected, it does not have to be a process' obstacle. Effective and efficient

change management requires not only recognizing the resistance source and trying to eliminate it, but also using it as a source of knowledge (feedback from entities involved) for the future (Drucker 2010). The acceptance of the change subject by employees can be favored due to their involvement and participation in the transformation process. The participative style of management motivates subordinates from different levels of the organization to commitment, action and creative thinking. Employees who are informed on an ongoing basis about implemented changes, who have knowledge about possible solutions and have an impact on decisions made, show greater flexibility and tendency to adapt to a new situation. Unfortunately, participative management is still rare in organizations (Szelągowska-Rudzka 2015).

Although change management was born in the private sector and initially was studied only in private organizations, over time the need was observed to use the management output in the public sector as well. Despite the existing differences between sectors, an attempt to adapt different management methods and techniques used in the private sector to the conditions of the public sector was made. This was mainly due to the growing ineffectiveness of public sector organizations resulting from the traditional method of administration, i.e. bureaucracy and its maladjustment to the challenges of the contemporary world. As a consequence, new theories of public management were born among which the concepts of *new public management (NPM)* and *public governance (PG)* are worth highlighting (see section 1.4).

When considering change management in both the private and public sector, the question arises whether the current knowledge in this area can also be applied to something much larger than the commonly understood organization (such as an enterprise, foundation, university, public institution, local government). Can change management be applied to a pension system? Such a question seems to be fully justified due to the pension reforms carried out over two or three decades in many countries, including Poland. These reforms often face significant social resistance and their effects are assessed in various ways, often critically. Generally, a pension system can be defined in a micro- and macro- scale (see section 2.1). In the former it is understood as a tool for smoothing consumption over the life cycle, while

in the latter it is defined as a tool for dividing the current gross domestic product (GDP) between the generation of production age (workers) and the generation of post-production age (pensioners). Thus, the aim of a pension system is to smooth consumption over the life cycle of the individual and to distribute GDP fairly between generations (Barr, Peter 2006; Góra 2003). Nowadays, due to changing demographic, economic and social conditions, pension systems need to be systematically adjusted if they are to achieve their goals. The growing number of people of post-working age and the decreasing number of people of pre-working age (resulting mainly from two phenomena: declining fertility and increasing life expectancy) causes significant changes in the age structure of the population, which influences greatly the financing of pensions (McCulloch, Frances 2003). Consequently, the amount of retirement benefits differs from the amount of income achieved in the period of professional activity, and in the future this difference will significantly deepen. It raises a concern not only among current and future beneficiaries but also among the governments and organizations operating within pension systems.

Despite the public nature of a pension system, it is worth mentioning that modern pension systems are evolving towards partial privatization. As a result not only financial institutions but also employers and employees started to play an increasing role in their functioning. The former become the organizers of pension plans, the latter – their participants. This fundamental change in the functioning of pension systems has been taking place in many countries of Central and Eastern Europe (CEE). However, it should also be noted that a compulsory system often described in the literature as a public one, is not synonymous with a publicly managed system, and similarly, a voluntary system is not synonymous with a privately managed system. Publicly managed systems are the ones where pension plans are organized and conducted by public administration entities while privately managed systems are the ones in which pension plans are organized and conducted by private entities. It is worth noting that private management does not exclude state supervision over pension plans, which means that both the compulsory and the voluntary system can be managed by a public entity as well as by a private one (Chybalski 2016a).

Due to the decreasing replacement rates, the implementation of changes in pension systems has become inevitable. It is a multidimensional and challenging process requiring a more in-depth analysis (see section 3.1). Changes are characterized by a long-term nature which means that their results are usually visible just after a dozen or even several dozen of years. In addition, the change process in a pension system depends on numerous conditions some of which are exogenous (see section 3.3). Among them, an important role is played by political conditions that, due to the confrontation of short- and long-term planning, may lead to a conflict of interest. Furthermore, there are many entities involved in the process (e.g. public administration, financial institutions, enterprises, employees), which means that the results can be interpreted in many different ways and from very different perspectives (see section 3.4).

Therefore, the issue of changing pension systems requires the development of a socially acceptable balance between the financial sustainability of pension systems, public budget constraints and fair distribution of incurred costs between generations. It should also be noted that the pension system has to be characterized by relative organizational and legal stability, if it is supposed to function properly and fulfill its main goals. Obviously, this relativity allows for certain flexibility, as the pension system must be systematically adapted to the changing demographic, social and economic conditions. Nevertheless, too many changes may adversely affect various entities operating within the pension system as well as its future and current beneficiaries (employees and retirees), causing their resistance, discouragement or even conflicts. Usually these adjustments take form of parametric changes (so-called parametric reforms, which include, for example, change in the retirement age, change in the amount of the pension contribution or the level of benefits). However, sometimes paradigmatic/structural changes are also needed (so-called paradigmatic/structural reforms which refer to general concepts and principles of a pension system, for example, change in a pension system formula, privatization of pension institutions or the creation of capital funds) (Kalina-Prasznic 2016).

In the face of abovementioned challenges, the process of introducing changes in a pension system and waiting for their results seems to be insufficient, even more so because it is difficult to imagine success in reforming the

pension system without proper management of this process. However, the question arises whether the process of managing a pension system includes also the process of change management and whether the entities responsible for managing and administrating pension system focus on managing implemented changes. Going further, even if they are, what the process of managing the change or reform looks like and what is its purpose? Is it monitored in any way and whether any corrective actions are taken if some problems appear? On the other hand, if they are not, what is the value and credibility of numerous assessments of changes implemented in pension systems and on what basis they are made?

It is difficult to answer the above questions as the literature review indicates that there are hardly no studies in which the problem of managing change in a pension system would be undertaken. It suggests that there exists a significant research gap of theoretical, cognitive and empirical nature referring to the application of methods and concepts of management in the area of reforming pension systems and its institutions. Pension systems are analyzed primarily from the viewpoint of economics, finance, actuarial mathematics, law and social policy. Scientific studies from these areas definitely dominate in the literature. The analysis of the pension system from the management viewpoint is a much less popular topic. While reviewing the foreign literature, some studies on management in a pension system can be found (see e.g. McCulloch, Frances 2003; Mitchell 1994; Robalino 2005) but in Poland this area seems to be unexplored for the time being.

Modern pension systems require effective and efficient management. Due to the fact that the functioning of the pension system is influenced by numerous conditions (demographic, economic, social, political) that change over time, the system itself must also change. However, it should be remembered that the change is a long-term process and any pressure to accelerate its implementation or any precipitate decisions may lead to the creation of some unrealistic expectations and, consequently, to a change failure (Clarke 1997). To avoid such threat, a particular attention should be paid not only to the vision of the target state but to the entire process of planning and implementing the change as well as its 'rooting' and controlling. These stages constitute the change management process, whose application seems to be necessary for the

proper functioning of pension systems in the face of changes to which they are subjected. Therefore, it is worth making an attempt to use the change management concept with regard to a pension system.

Defining the change management concept, it seems to be justified to refer to the four basic management functions, i.e. planning, organizing, leading and controlling (see section 3.5). It means that change management can be defined as the process which includes following steps:

- planning the change program and resulting operational strategy;
- creating economic, technical, financial and social conditions needed to proceed in accordance with the implementation schedule;
- inducing and sustaining commitment among participants of the change at the same time reducing their resistance;
- monitoring, evaluating and providing feedback concerning the process.

A review of the literature indicates that the last management function which includes the evaluation of achieved results, constitutes the greatest difficulty for both practitioners and theoreticians dealing with the problem of management (see section 1.5). While the majority of process steps is quite widely discussed in foreign and domestic literature, the methodology of assessing the results is often overlooked (Maslyk-Musiał 2003; Mikołajczyk 2003; Mikułowski 2012). However, without measuring the effects of taken actions, organizations are not able to evaluate their performance, thereby lowering the objectivity and rationality of decisions and activities taken in the future.

The assessment of changes introduced in a pension system is even more challenging due to the fact that the functioning of the system depends on many factors, and implemented changes are characterized by multidimensionality. Therefore, it is difficult to determine the impact of individual actions on the final result with the use of individual indicators. One should also pay attention to the difference between the assessment of the change itself and the assessment of the change management process. Such a distinction is often overlooked in the literature. Measuring the results of change management is a much broader concept than measuring the change itself, as it covers not only the difference between the final and initial stage of the process but also the way in which the change was implemented (Gumola, Chybalski 2017).

Therefore, the measurement of the change itself is a much easier task, as it requires only the comparison of the initial and final state of the process. Consequently, such a measurement of changes in a pension system can be understood as an assessment of changes that are constantly made in modern pension systems not only by specialists but also by participants of the system. Measurement of the change management, however, requires additionally the identification of input to the process and relating it to the output (results obtained). Thus, evaluation of such a process in a pension system is made very rarely, if at all.

Next question which arises while considering the possibility of assessing the change management process in a pension system is what measures can be applied in this field. Should the change management process be effective, economical or profitable? The selection of the effectiveness and efficiency as measures used to assess the change management process in the following study has its origins in the field of management and praxeology (Gumola 2017). Referring to Drucker's words (1993), the effectiveness (pol. *skuteczność*) 'is doing the right thing' and the efficiency (pol. *efektywność*) 'is doing the thing right'. According to Kotarbiński (1973), the effectiveness and efficiency (perceived by him as economy, pol. *ekonomiczność/gospodarność*) are the components of general efficaciousness (pol. *sprawność*). Following this line of reasoning, the effectiveness is focused more on the relation between goal and the result of the process (to measure the effectiveness, a ratio or distance between the result and assumed goal can be calculated), while the efficiency draws an attention to the input of the process (to measure the efficiency, a ratio of the obtained output to involved input can be calculated). Therefore, when measuring the effectiveness and efficiency of change management, both the result of the process as well as the input related to the process is taken into account which makes the assessment a comprehensive one.

In the light of above considerations, when assessing the effectiveness and efficiency of change management in a pension system, it is worth referring to the public management and the concept of the Open Method of Coordination (OMC) implemented in the field of pension security in the European Union (see section 2.2). Due to unfavorable demographic pro-

cesses and numerous socio-economic changes, European pension systems have undergone numerous reforms (Holzmann 2004). In order to support the Member States in the period of transformations and in the realization of the main objectives of pension systems, the European Union decided to introduce the OMC which is defined as one of the forms of governance. The Open Method of Coordination is based on mutual learning and motivation, while maintaining national autonomy. It is characterized by social participation which distinguishes also the concept of change management. A key instrument of the OMC is benchmarking which is about the exchange of the good practice (see section 1.5).

The aim of the benchmarking, which is one of the modern management methods, is not to copy best practices but imitate them creatively and use solutions that can be implemented in practice (Penc 2005). In the change management process, it can be used to stimulate the self-improvement, guide the change design or evaluate the process performance (Ammons 2000; Ezzine et al. 2013). In the following publication the benchmarking method is an important element of the proposed procedure for assessing the effectiveness and efficiency of change management in a pension system. It is an answer to the problem of interpretation of the measurement result, as without a pre-defined point of reference or desired effect, it is not possible to determine whether a process can be considered effective or efficient or not.

The literature review indicates that the change management process in a pension system and the measurement of its effectiveness and efficiency have not been subjected to in-depth scientific exploration so far, especially with regard to the Polish pension system. Therefore, the scientific goal of the monograph is to conceptualize and assess the effectiveness and efficiency of change management in a pension system. The realization of the general objective of the study requires the identification and realization of more specific objectives which are as follows:

- theoretical objective: to define and characterize the effectiveness and efficiency of change management in relation to a pension system (section 4.1 based on theoretical considerations undertaken in chapters 1-3);
- methodological objective: to develop a procedure for assessing the effectiveness and efficiency of change management in a pension system (section 4.3);

- empirical objective: to measure the effectiveness and evaluate the efficiency of change management in pension systems of selected Central and Eastern European countries starting from their reforms in the decades around the 2000 millennium (sections 5.4 and 6.4);
- application objective: to indicate recommendations for improving the change management process in a pension system in the context of upcoming changes (Conclusions).

The realization of the above scientific goals of the study should enable answering the following research questions:

1. What is the purpose of managing change in a pension system?
2. What are the dimensions of the effectiveness and efficiency of change management in a pension system?
3. How effective and efficient was the change management in selected CEE countries starting from their pension reforms in the decades around the 2000 millennium?
4. What are the good practices in change management in a pension system?

The following monograph consists of four main parts. The introduction includes a description of the book's subject matter, presents the aim and scope of the research conducted, as well as emphasizes the importance and usefulness of the study.

The theoretical part of the book refers to the current state of knowledge and research methodology. Thus, firstly a concise literature review in the field of change management and public management as well as in the area of a pension system and its organizations as management objects is conducted. Critical analysis of the literature makes it possible to systematize knowledge concerning the field of the research problem and contributes to the conceptualization of the effectiveness and efficiency of change management in relation to a pension system. Secondly, a proposition of the procedure for measuring the effectiveness and evaluating the efficiency of change management in a pension system, based on a quantitative and qualitative study is presented. In the former multivariate statistical analysis (MSA) combined with the benchmarking method is applied. The latter, on the other hand, is based on a literature review as well as document analysis.

In the empirical part the effectiveness and efficiency of change management in pension systems is assessed in accordance with the previously proposed procedure. Multivariate statistical analysis is used in relation to indicators defined for various dimensions of the effectiveness and efficiency of change management in a pension system. Some indicators are selected from available statistical databases run by European Statistical Office (Eurostat) and Organization for Economic Co-operation and Development (OECD) and others are proposed by the author. All countries are characterized by a uniform set of indicators, which makes it possible to order them in terms of effectiveness of change management by means of linear ordering and thus, identify the internal benchmarks. The cross-country analysis is carried out for the period from the implementation of pension reforms in the decades around the 2000 millennium to the end of 2019 for eleven countries of Central and Eastern Europe. They are as follows: Bulgaria, Croatia, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. Literature and document analysis, on the other hand, allows to identify both the chronology as well as conditions for changes implementation. The reference of such information to the previously mentioned theory allows to evaluate changes processes on the ground of the change management theory.

The last part – conclusions – consists of recommendations formulated on the basis of patterns identified as a result of quantitative and qualitative analysis carried out in the empirical part of the study. Recommendations take the form of good practices and are prospective in nature. They can be used to improve the change management process in a pension system, also in the context of subsequent changes which seem to be inevitable.

In addition to the practical usefulness of this study presented in the conclusions, it is also worth mentioning the possible usefulness of the work in the field of science. The reference of the change management concept to a pension system is an innovative approach which has not been elaborated in the Polish literature yet. In foreign publications, it also cannot be considered as a popular area of research, which makes it an unquestionable cognitive gap. It has both theoretical and empirical dimension. The following book attempts to bridge this gap, firstly by conceptualizing the effectiveness and efficiency of change management in a pension system (theoretical dimension) and

secondly by developing a methodology for assessing the effectiveness and efficiency of managing the change in a pension system (empirical dimension).

The assessment of the effectiveness and efficiency of change management constitutes a great challenge for both practitioners and researchers. This is mainly due to the fact that the change process is a long-term, multistage and multidimensional one. Moreover, the distinction between the concepts of effectiveness and efficiency is often overlooked in the literature which means that these terms are used interchangeably which, obviously, is in contradiction to the theory of praxeology. An attempt to systematize the knowledge and results of research conducted in this field may indicate the directions of further research in the field of assessing the effectiveness and efficiency of the change management process, not necessarily with regard to a pension system.

The measuring procedure proposed in the book combines the method of benchmarking with a multivariate statistical analysis. Benchmarking is derived from management and is widely used mainly in qualitative approach. The multivariate statistical analysis, on the other hand, originates from economic sciences and is commonly used in quantitative approach. The research procedure, proposed in the following book, shows that the multivariate statistical analysis applied with a linear ordering can be used to identify some benchmarks. Thus, it can be an example of a comprehensive study (combining a quantitative and qualitative approach) possible to use in many fields of science.

The presented monograph is based on a PhD. thesis entitled 'The effectiveness and efficiency of change management in a pension system: conceptualization, measurement and evaluation'. It was written in years 2018–2021 under the supervision of professor Filip Chybalski and defended with honors in March 2021. The reviewers of the dissertation were professor Marek Szczepański and professor Patrycja Kowalczyk-Rólczyńska.

Fragments of the mentioned PhD. thesis on measuring the effectiveness of change management in the pension system were previously used in the scientific paper entitled 'Change in a Pension System: A Manageable and Measurable Process?' published in 2021¹.

¹. M.Gumola-Kardas (2021), *Change in a Pension System: A Manageable and Measurable Process?*, 'European Research Studies Journal', vol. 24, no. 3B, pp. 421–433.