D. A. Tsenov Academy of Economics – Svishtov Department of Insurance and Social Security

Zhaneta Emilova Angelova

OPPORTUNITIES FOR ECONOMIC REGULATION AND SOCIAL ADAPTATION THE AMOUNTS OF PENSIONS FOR PENSIONABLE SERVICE AND RETIREMENT AGE IN BULGARIA

AUTHOR'S ABSTRACT

of dissertation for awarding of educational and scientific degree "Doctor" in the doctoral programme "Finance, Money Circulation, Credit and Insurance (Insurance and Social Security)"

Supervisor: Assoc. Prof. Rumen Erusalimov, PhD Assoc. Prof. Ivan Grozdanov, PhD

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The PhD thesis was discussed and allowed to be defended pursuant to the provisions of the Act on Development of the Academic Staff in the Republic of Bulgaria and the Regulations for the Development of the Academic Staff in Academy of Economics "D. A. Tsenov" – Svishtov by the Department of Insurance and Social Security at D. A. Tsenov Academy of Economics – Svishtov.

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All materials related to the defence shall be available upon request at the Department of Doctoral Studies and Academic Staff Development.

I. GENERAL CHARACTERISTICS OF THE DISSERTATION THESIS

1. Relevance of the topic

The socio-economic transformations in the Bulgarian society exacerbate and determine the extreme importance of the problems of incomes, the minimum living wage and the standard of living in the country. Pensions granted by the public pension system, and above all pensions for pensionable service and retirement age, are too often the subject of discussions and evaluations, mainly from the positions of personal expectations and desires, whereby economic realities and opportunities remain somehow out of focus. The economic mechanism of social security protection is of decisive importance in relation to the social dimensions of the pensions granted for labour activity, from which derives the stated research interest in studying the possibilities for economic regulation and social adaptation of the retirement pensions in Bulgaria.

The issue of social security is the subject of expert evaluation both at the national and international level. The organisational aspects of social protection systems are described in numerous acts of the International Labour Organization, some of which served as a basis for developing the main documents in the field of social policy of the European Union. Building national pension systems with the capacity to guarantee adequate, secure and sustainable pensions is a constant priority of the development of the European Union and a fundamental element of the European pillar of social rights.

A number of aspects of the manifestation of social security within the social protection systems are subjected to study and analysis in the scientific works of Bulgarian and foreign authors – E. Browne, A. C. Norton, A. M. Shepherd, T. Braikova, D. Dimova, M. Petrov, P. Penkov, K. Kolev, Pl.

Yordanov, St. Kirov, Hr. Blagoycheva, Iv. Daneva, L. Stefanov, L. Dulevski, Al. Todorov, V. Mrachkov, Kr. Sredkova and others. The researches of Iv. Katsarov, Zdr. Georgiev, N. Pavlov and Y. Hristoskov, dedicated to the economic essence and organisational specificity of pension insurance and the payments granted, are distinguished by their exceptional importance and depth. However, there is a lack of comprehensive studies aimed at researching the possibilities of placing the social dimensions of the granted pensions in the organisational-economic framework of the equivalence of the pension insurance protection.

2. Object and subject of research

The object of the dissertation is the functioning of the pension insurance, perceived as a basic element of the social insurance systems with a determining importance for achieving social security in modern society.

The subject of research is the socio-economic characteristics of public pension insurance and the organisational dimensions of the pensions for pensionable service and retirement age, as part of public pensions for labour activity in Bulgaria.

3. Research thesis

An attempt has been made to argue **the thesis** that the created organisational order of public pension insurance protection in Bulgaria, although it takes into account the participation in the social insurance when forming the amounts of the provided pensions for pensionable service and retirement age, includes the application of a universal mechanism for administrative impact, giving priority to their social adaptation, without the necessary differentiating binding to the personal social insurance contribution of the protected persons.

4. Purpose and tasks of the dissertation thesis

The main **purpose** of the study is to bring out substantiated proposals for the development and improvement of the organisational framework of public pensions for pensionable service and retirement age in Bulgaria, affirming economic determinism as the basis of an understandable mechanism of formation, differentiation and social adaptation of the amounts of payments provided.

The object, subject, thesis and purpose of the dissertation research require the solution of certain research **tasks**, namely:

- Study of the specifics of public pension insurance and the socioeconomic dimensions and effects of its functioning.
- Study of the content characteristics, economic determinism and social adaptation of pensions for labour activity at the risk of old age.
- Study of national practices in determining the amounts of public pensions for labour activity in old age.
- Outline the specifics of the development of public pension insurance and old-age labour pensions in Bulgaria.
- Study of the organisational framework of granting and social adaptation of pensions for pensionable service and retirement age in Bulgaria.
- Study of the organisational capacity for economic regulation of public pension insurance and the amounts of pensions for pensionable service and retirement age in Bulgaria.
- Assessment of the state of pensions for pensionable service and retirement age in Bulgaria during the period 2000 2022.
- Formulation of proposals for the development and improvement of the organisational framework of pensions for pensionable service and retirement age in Bulgaria.
 - Evaluation of the effect of the formulated proposals.

5. Research methodology

The development of the dissertation is in accordance with the research of Bulgarian and foreign authors, dedicated to the problems of pension insurance and the organisational and economic specifics and social dimensions of the pensions granted for labour activity, with official statistical information and a legal basis, current as of 30 May 2022.

The following methods were used: historical method; comparative method; method of analysis and synthesis; expert evaluation method; observation method; modeling method; statistical and mathematical methods.

The conclusions and recommendations, which served as the basis of the formulated proposals, are based on current observations on the practice of pension insurance in Bulgaria.

6. Scope of the research

The scope of the study is limited to the problems and possibilities of combining the organisational and economic specifics of pensions for pensionable service and retirement age with their social adaptation both at the time of granting and during the period of their receipt. This can be explained by the role of this social insurance benefits, received by the largest number of pensioners and generally paid out in the highest amount. The results of the research work, which demonstrated rationality and organisational capacity, can be successfully adapted to the organisational specifics of invalidity pensions.

7. Approbation of the dissertation

The dissertation was discussed at meetings of the Department of Insurance and Social Security. Some of the achieved research results have been presented at scientific forums and published in peer reviewed journals.

8. Applicability of the research results achieved

The summaries and systematisations of the theoretical and methodological dimensions of public pension insurance and the socio-economic characteristics

of old-age contributory pensions enrich scientific knowledge and can be successfully used as a starting point in the argumentation of rational decisions for organisational improvement of the public pension insurance system in Bulgaria.

The research and systematisation of the organisational aspects of public pension insurance in Bulgaria can be used in assessing the conformity of the natural economic foundation of old-age contributory pensions with the growing requirements for their social adequacy.

The assessment of the state and the formulated proposals for organisational development and improvement of the mechanism of formation and social adaptation of the amounts of pensions for pensionable service and retirement age can be used in arguing for working solutions to achieve a rational balance between the desired social adequacy and the necessary one based on the insurance contribution differentiation of insurance payments in Bulgaria.

II. STRUCTURE AND CONTENT OF THE DISSERTATION

The dissertation consists of: title page; content -3 pages; introduction -5 pages; main text (three chapters) -196 pages; conclusion -3 pages; declaration of originality and authenticity; list of cited sources (references) -10 pages (154 sources). There are 22 tables and 19 figures. The study has a total volume of 210 pages and has the following structure:

Introduction

Chapter One. Economic and social aspects of old-age labour pensions

- 1. Content characteristics, economic mechanism and social effects of the functioning of public pension insurance
- 1.1. Content characteristics of social security
- 1.2. Public pension insurance as a form of social security protection
- 1.3. Economic mechanism and social effects of public pension insurance
- 2. Theoretical and methodological aspects of public old-age labour pensions
- 2.1. Content characteristics, systematisation and general organisational framework of social insurance benefits
- 2.2. General characteristics and systematisation of pensions
- 2.3. Specific features and organisational framework of old-age contributory pensions
 - 2.3.1. Insurance and technical aspects of the risk of old age
 - 2.3.2. Features, amount and level of old-age contributory pensions
 - 2.3.3. Principles of organisation of old-age contributory pensions
 - 2.3.4. Economic determinism and social adaptation of old-age contributory pensions
- 3. Approaches and practice in determining the amounts of social insurance payments due to old age
- 3.1. Peculiarities of old-age protection in the EU-28 countries

- 3.2. Mechanism of formation of the amounts of social insurance payments due to old-age in selected countries of the EU-28
 - 3.2.1. Mechanism of formation of old-age pensions in Germany
 - 3.2.2. Mechanism of formation of old-age pensions in France
 - 3.2.3. Mechanism of formation of old-age pensions in Italy

Conclusions to Chapter One

Chapter two. Organisational and economic characteristics of pension insurance and old-age labour pensions in Bulgaria

- 1. Development of pension insurance and old-age labour pensions in Bulgaria
- 1.1. Peculiarities of the development of old-age social insurance in the period 1888 1949.
- 1.2. Peculiarities of the development of old-age social insurance in the period 1950 1989.
- 1.3. Peculiarities of the development of old-age social insurance in the period 1990 1999.
- 1.4. Place and role of public pension insurance in old age within the framework of the multi-pillar insurance model
- 2. Organisational framework of pensions for pensionable service and retirement age
- 2.1. Organisational framework for acquiring the right to a pension for pensionable service and retirement age
- 2.2. Organisational framework for determining the amount of the pension for pensionable service and retirement age
- 2.3. Organisational framework of social adaptation the amount of pensions for pensionable service and retirement age
- 2.3.1. Organisational framework of the minimum and maximum amount of pensions for pensionable service and retirement age

- 2.3.2. Organisational framework of the current updating and recalculation of the amounts of pensions for pensionable service and retirement age
- 2.3.3. Organisational framework of the change in the amounts of pensions for pensionable service and retirement age
- 3. Organisational capacity for economic regulation of public pension insurance and the amounts of pensions for pensionable service and retirement age in Bulgaria
- 3.1. Methodological aspects and organisational framework of the pensionable service as a factor of the personal insurance contribution in the public pension insurance in Bulgaria
- 3.2. Methodological aspects and organisational framework of the insurable earnings (contribution base) as a factor of the personal insurance contribution in the public pension insurance in Bulgaria
- 3.3. Methodological aspects and organisational framework of insurance installments as a factor of personal insurance contribution in public pension insurance in Bulgaria

Conclusions to Chapter Two

Chapter three. Status, problems and prospects for the development of pensions for pensionable service and retirement age in Bulgaria

- 1. Status of pensions for pensionable service and retirement age in the period 2000 2022.
- 1.1. Quantitative characteristics of pensions for pensionable service and retirement age in Bulgaria in the period 2000 2020.
- 1.2. Social dimensions of pensions for pensionable service and retirement age in Bulgaria in the period 2000 2020.
- 1.3. Financial and organisational aspects of pensions for pensionable service and retirement age in the period 2000 2020.

- 1.4. Economic and organisational determinants and amounts of pensions for pensionable service and retirement age in Bulgaria during the period 2015 2020.
- 1.5. Status and announcements for the development of pensions for pensionable service and retirement age in 2021 and 2022.
- 2. Need and directions of development and improvement of the organisational framework of pensions for pensionable service and retirement age in Bulgaria
- 2.1. Need for development of the organisational framework of pensions for pensionable service and retirement age in Bulgaria
- 2.2. Directions of development of the organisational framework of pensions for pensionable service and retirement age in Bulgaria
- 3. Estimation and evaluation of the effect of the formulated proposals
- 3.1. Insurance-technical estimation of the parameters of the formulated proposals
- 3.2. Socio-economic evaluation of the parameters of the formulated proposals Conclusions to Chapter Three

Conclusion

Declaration of originality and authenticity

Cited sources (References)

III. SUMMARY OF RESEARCH CONTENTS AND RESULTS

Introduction

The introductory part of the dissertation contains a justification of the relevance and significance of the topic. It defines the object and subject of the research and formulates the research thesis. The main purpose and specific research tasks are set. The scope and methodology of the study are presented.

Chapter One. Economic and social aspects of old-age labour pensions

The first chapter of the dissertation thesis has a total volume of 69 pages and consists of three paragraphs. The expose represents the author's attempt to interpret the theoretical and methodological dimensions of public pension insurance and the socio-economic characteristics of old-age contributory pensions.

The first paragraph is entitled "Content characteristics, economic mechanism and social effects of the functioning of public pension insurance". It is structured in three sub-paragraphs, in a total volume of 15 page It is developed in fulfillment of the first specific research task.

The first sub-paragraph is entitled "Content characteristics of social security". In it, in a summary of the views of various researchers, an understanding of social insurance was adopted, tying the objective nature of social insurance relations to the specific socio-economic conditions, national identity and a specific organisational framework of their manifestation.

The second sub-paragraph is entitled "Public pension insurance as a form of social security protection". In the course of the presentation, based on its distinctive features outlined, public pension insurance, as an organisational form of pension insurance protection, is identified with public pension insurance, organised and conducted as part of the State Social Insurance.

The third sub-paragraph is entitled "Economic Mechanism and Social Effects of Public Pension Insurance". In it, the main organisational and economic parameters of the functioning of public pension insurance are tied to the fundamental principles of social insurance, at the same time perceived and presented as a kind of basis for achieving the desired social effects – guaranteeing replacement income in the event of permanent incapacity to work or death.

The second paragraph of chapter one is entitled "Theoretical and methodological aspects of public old-age labour pensions". It has a total volume of 37 pages and it is developed in three sub-paragraphs, in fulfillment of the second specific research task.

The first sub-paragraph is entitled "Content characteristics, systematisation and general organisational framework of social insurance benefits". In it, in a summary of a thorough analysis of popular theoretical and methodological views, social insurance benefits are presented as a projection of the economic essence and social dimensions of social insurance protection, systematised on the basis of various classification features derived from the scheme of functioning of social insurance, and are tied to the fulfillment of certain requirements for granting in an amount placed in a specific functional dependence on the income received from work.

The second sub-paragraph is entitled "General characteristics and systematisation of pensions". In the course of the expose, pensions are presented as a payment of an indisputable social nature, which guarantees income in certain situations to certain categories of persons, but also as a payment distinguished by specific economic and organisational characteristics, mostly in connection with the acquisition of the right, determination of the amount and method of financing. From such positions, a distinction was drawn between pensions granted on the basis of contributions made and pensions granted without connection to work and without prior participation in social insurance.

The third sub-paragraph is entitled "Specific features and organisational framework of old-age contributory pensions". It is developed in four separate parts, in which the social insurance and technical aspects of the risk of old age, the features, amount and level of old-age contributory pensions, the principles of their organisation and views on the possibilities of achieving and maintaining the desired social adequacy within of the economic mechanism of pension insurance functioning are successfully examined and presented.

The third paragraph of the first chapter is entitled "Approaches and practice in determining the amounts of social insurance payments due to oldage". It includes four sub-paragraphs and is developed in a total volume of 12 pages, in fulfillment of the third specific research task. The exposition in it is part of the author's work, presented, in connection with the approval of the results of the research work, at the Thirteenth Doctoral Scientific Session, subsequently published in the Annual Almanac "Scientific Research of Doctoral Students" – Edition XIII – 2020, Book 16 – Studies and Articles (section "Studies"). It successively presents the organisational and economic features of old-age protection in the countries of the European Union and mechanism of formation of the amounts of social insurance payments due to old age in Germany, France and Italy.

In summary of the presentation in the Chapter One, the following **conclusions** were drawn:

- The emergence of social security is a natural result of socio-economic development and confirmation of the role of labour as the main source of resources for personal consumption. Its functioning is based on the advance collection of contributions, which guarantees the unconditional (without assessment of need) right to counter-payment in the event of the occurrence of anticipated adverse consequences due to the manifestation of anticipated and determined events (risks). Perceived as an economic mechanism for guaranteeing replacement income in cases of incapacity for work, social

insurance becomes a fundamental element of the built social protection systems, crucial for achieving the desired dimensions of social security in any society.

- Pension insurance is a major share of social security, set aside in connection with the guarantee, on an insurance principle, of means of existence during the long periods of enduring the adverse economic consequences when the risks of old age, disability and death occur. Its functioning is based on specific statistical foundations, insurance and technical tools, and financial organisation. Organised and conducted by the state, it is distinguished by general availability and acquires a public character. The main problems of the functioning of the pension insurance, related to the current financing of expenses, are due, first of all, to insufficient knowledge of its insurance-technical nature and to attempts to grant and pay pensions without the necessary binding to the parameters of previous insurance contributions.
- The social function, related to providing, if not entirely, then the predominant part of the means of existence during the disabled life, is leading for pension insurance, but the economic mechanism of its functioning, based not only on solidarity and mutual aid, but also on equivalence, requires the contributions paid by or for the insured persons during their active working life to cover the pension paid to those same persons or to their entitled heirs.
- The pension, as a general material expression of the protection provided by the pension insurance, is a periodically recurring payment granted upon fulfillment of predetermined conditions and prerequisites upon the occurrence of a covered risk and an objectively established permanent inability to obtain means of existence from an exercised labour activity. Its social character is associated with guaranteeing a certain level of satisfaction of a certain range of needs. The insurance nature of the pension is associated with its manifestation as a payment of a compensatory nature, granted on the basis of prior and sufficient (in time and financial aspect) participation with contributions and replacing lost

or reduced, due to incapacity for work or death, income from a source of labour activity.

- Old-age contributory pensions, as part of pensions for labour activity, formed at the exit of the pension insurance system, should be granted in an amount determined by functional dependence, binding in a specific way both income from labour activity and participation in insurance (time and mass of insurance installments, as measures of the sum of individuals' social security contribution), as well as the structure and dynamics of pensioners' needs. They must compensate for some of the lost labour income and, at the same time, be in an amount that allows satisfying the needs of individuals at a level significantly exceeding the subsistence minimum, but taking into account both the economic opportunities and the objectives of the implemented social policy, as well as the amount of remuneration received and the personal social security contribution. The recommended relative rate of compensating labour income at retirement, often cited in the specialised literature, is 75%.
- The amounts of old-age contributory pensions can be formed from one or two components. In the first case, the amount is consistent with the labour income and the duration of the person's participation in the social insurance, i.e. with the amount of contributions made. In the second case, the amount of the pension consists of the so-called basis, usually related to the fulfillment of the minimum required conditions and prerequisites for its granting, and a supplement, most often determined according to the total duration of the person's participation in the social insurance. It is a common practice to match the size (most often by the basis) to a quantity perceived as an objective measure of the standard of living.
- The organisational framework of old-age contributory pensions should be a complex reflection of the generally accepted principles for the organisation of pensions for labour activity – social justice, social equality, social adequacy and consideration of the pensioners' need and aspirations, but in compliance

with the requirements for distribution according to the social security contribution, differentiation, adaptability, flexibility, efficiency, economic interest and simplicity, clarity, objectivity and practicality of the applied mechanism for determining their size.

- The desired social dimensions and adequacy of social payments in old age (part of which are old-age contributory pensions) should not become an end in itself and the imputed responsibility of pension insurance alone, achieved through excessive redistribution within the pensioner population and without to be guaranteed with the necessary equivalent personal social security contribution or sufficient financial resource. The parameters of the persons' participation in the social insurance are manifested as an economic regulator of the desired social adequacy of the granted pensions, and the economic mechanism of the pension insurance protection, mainly through the insurable earnings, insurance installments and pensionable service, allows the search for opportunities to achieve the necessary balance between required social security contribution and desired amount of the insurance payment.
- Covering the adverse consequences of the onset of old age is a major challenge for the social protection systems of any society, and the organisational framework of the provided protection, although subject to general principles and methodological basis, is distinguished by specific features and national identity. The study of foreign experience in the field of public old-age labour pensions can be successfully used in the selection of rational solutions for the development and improvement of the organisational framework of pensions for pensionable service and retirement age in Bulgaria, binding the desired increase in their size and level with the necessary personal social security contribution.

The second chapter of the dissertation has a total volume of 69 pages and consists of three paragraphs. The expose reflects the results of the study of the organisational aspects of public pension insurance and the development of old-

age labour pensions in the context of the features of the country's socioeconomic development.

The first paragraph is entitled "Development of pension insurance and old-age pensions in Bulgaria". It has a total volume of 18 pages and it is developed in four sub-paragraphs, in fulfillment of the fourth specific research task. In the course of the expose, the organisational development and social significance of old-age labor pensions in Bulgaria during the periods 1888 – 1949, 1950 – 1989 and 1990 – 1999 were consistently studied, and the role of pensions for pensionable service and retirement age within the multi-pillar social insurance model is outlined.

The second paragraph is entitled "Organisational framework of pensions for pensionable service and retirement age". It is developed in three subparagraphs in a total volume of 36 pages, in fulfillment of the fifth specific research task.

The first sub-paragraph is entitled "Organisational framework for acquiring the right to a pension for pensionable service and retirement age". It has studied and systematised the changes in the social security legislation during the period 2000 - 2022, which regulate the required conditions for granting a pension for pensionable service and retirement age for the various categories of insured persons.

The second sub-paragraph is entitled "Organisational framework for determining the amount of the pension for pensionable service and retirement age". It has studied and systematised the changes in the social security legislation during the period 2000 - 2022, which regulate the mechanism of determining the amounts of pensions for pensionable service and retirement age in Bulgaria.

The third sub-paragraph is entitled "Organisational framework of social adaptation the amount of pensions for pensionable service and retirement age" and it is developed in three separate parts. It has consistently studied and

systematised the changes in the social security legislation during the period 2000 – 2022, which regulate the mechanism of social adaptation the amounts of pensions granted for pensionable service and retirement age by equating them to the established minimum and maximum amount, by their ongoing updating and recalculation and by changing their size.

The third paragraph is entitled "Organisational capacity for economic regulation of public pension insurance and the amounts of pensions for pensionable service and retirement age in Bulgaria" and is developed in three sub-paragraphs in a total volume of 11 pages, in fulfillment of the sixth specific research task. In the course of the expose, the methodological aspects and the organisational arrangements legitimising the pensionable service, insuarable earnings and insurance installments as factors of the personal social security contribution in the public pension insurance in Bulgaria were consistently examined. Part of the expose in this paragraph represents fragments of the author's work (report and article), presented, in connection with the testing of the results of the research work, to the scientific community, and published, accordingly, in the Conference Proceedings from the International Scientific and Practical Conference held in 2021, dedicated to the 85th anniversary of D. A. Tsenov Academy of Economics – Svishtov, and in the Electronic magazine "Dialogue".

In summary of the presentation in the **Second Chapter**, the following **conclusions** are drawn:

- The development of pension insurance and old-age labour pensions in Bulgaria follows the stages of creation and development of the social security system as a whole from 1888 to 1949, from 1950 to 1989, from 1990 to 1999 and from the beginning of 2000.
- The period from 1888 to 1949 1950 was a period of gradual creation and consolidation of retirement benefits for the various categories of employed persons, distinguished by the increase in the number of granted and paid

pensions typical for the first 70-80 years of their existence, which, in combination with the insufficient amount of the collected social contribution and the easy-to-fulfill conditions for acquiring the right to payment causeed, in the long-term aspect, deepening chronic financial problems. The actual amount of payments varies depending on the socio-economic conditions and opportunities for economic activity in the country, from an impressive 234.84% of the notional monthly budget of a typical family of four persons, recalculated for one person, for pensions for pensionable service in 1895 to only 6.33% compared to the same indicator for agricultural pensions in 1949.

- The period from 1950 to 1989 was a period of development and unification of social security legislation regarding the insurance and retirement of the various categories of insured persons in the full scope of the working age population in the conditions of the existing political system and centrally planned economy. The average amount of pensions paid in the country at the end of the period varies from 48.34% compared to the average monthly salary in the case of pensionable service and old-age pensions to 25.88% compared to the same indicator in the case of old-age pensions of private farmers, with an increasing amount of the collected social contribution from 12.5% in 1960 to 30% starting from 1981.
- The starting point of the development of old-age pension insurance in the conditions of political and economic transformations in Bulgarian society in the period 1990 1999 are its distinctive characteristics presence of wasteful, generous and deviating from the principle of equivalence provisions which, combined with the persistent maintenance of low retirement ages, cause persistent and deepening financial imbalances. This is a period during which the pension insurance system gradually adapts to the changed socio-economic realities, as a basis for subsequent deployment of the potential of the modern multi-pillar social insurance model. At the end of the period, the average amount of the pension for pensionable service and old-age represented 34.72% of the

average monthly wage, at levels of the same indicator, respectively, 44.60% in 1991 and 29.29% in 1997.

- With the adoption at the end of 1999 of the Code for Mandatory Social Security, the radical reform in public pension insurance was carried out in practice. It manifests as a fundamental first pillar of the new multi-pillar pension insurance system, it is based on solidarity and is organised on a pay-as-you-go basis according to the logic of defined payment schemes. Its role is associated with guaranteeing a level of compensation of income in retirement around 40%, with the possibility of upgrading through participation in the supplementary compulsory and supplementary voluntary pension insurance, organised on a capital-funded basis according to the logic of defined contribution schemes and with the personalisation of the formed accumulations.
- The development of the organisational framework of pensions for pensionable service and retirement age within the framework of the multi-pillar social insurance model is associated with numerous changes, some of which are contradictory and of extremely short duration, but, in general, consistent in their orientation towards increasing both the requirements for acquiring the right of payment, as well as their amounts and levels, including administratively, through the mechanisms of the minimum and maximum amount, updating and recalculation. There is an unused capacity for natural economic impact and regulation through the parameters of social insurance participation (pensionable service, insurable earnings, insurance installments), which, instead of guaranteeing an adequate, relative to the sizes and levels of pensions granted for length of service and age, social security contribution, are aimed, above all, at providing a resource for their current financing.

The third chapter of the dissertation has a total volume of 48 pages and consists of three paragraphs. The expose reflects the results of the work on assessing the state and outlining the opportunities for organisational

development and improvement of the mechanism of formation and social adaptation of pensions for pensionable service and retirement age in Bulgaria.

The first paragraph is entitled "Status of pensions for pensionable service and retirement age in the period 2000 - 2022" and is developed in five sub-paragraphs in a total volume of 22 pages in fulfillment of the seventh specific research task.

The first sub-paragraph is entitled "Quantitative characteristics of pensions for pensionable service and retirement age in Bulgaria in the period 2000 - 2020". It contains systematised and analysed statistical information indicative of changes in the number of pensions, in the number of pensioners, in the number of the population, in the number of insured persons, in the number of pensioners with a pension for pensionable service and retirement age, in the number of the newly released and in the number of terminated pensions for pensionable service and retirement age.

The second sub-paragraph is entitled "Social dimensions of pensions for pensionable service and retirement age in Bulgaria in the period 2000 – 2020". It systematises and analyses statistical information describing changes in the pensioner's average amount of payments, in the average amount of payments of a pensioner with a pension for pensionable service and retirement age, in the amount of the poverty line determined for the country, in the average monthly amount of the salary, in the amount of the minimum salary, in the amount of the determined minimum and maximum amount of the insurable earnings, in the average monthly amount of the insurable earnings, in the amount of the determined guaranteed minimum income, in the amount of the social pension for old-age, in the minimum amount of the pension for pensionable service and retirement age, in the maximum amount of one or more pensions received, in the amount of a person's annual cash income, in the average age of pensioners with newly granted personal pensions for pensionable service and retirement age and in the average duration of receiving this type of pension. The social significance

of the pension for pensionable service and retirement age, related to its role as a source of means of existence, is characterised by comparing its average amount with the corresponding amounts of payments of a social nature and purpose.

The third sub-paragraph is entitled "Financial and organisational aspects of pensions for pensionable service and retirement age in the period 2000 – 2020". It systematises and analyses statistical information describing the changes in the volume of pension expenditure, in the volume of revenue from insurance installments and in the produced Gross Domestic Product. It is studied the dynamics of the share of the expenditure on pensions for pensionable service and retirement age in the total expenditure on pensions, in the expenditure on pensions for labour activity, in the produced Gross Domestic Product and the degree of coverage with insurance installments for the funds "Pensions" and "Pensions for the persons under Art. 69" of the total expenditure on pensions for pensionable service and retirement age, with conditional elimination of the expenditure on pensions for labour activity in case of disability.

The fourth sub-paragraph is entitled "Economic and organisational determinants and amounts of pensions for pensionable service and retirement age in Bulgaria during the period 2015 – 2020". It systematises and analyses statistical information representative of the change in the average basic monthly amount of newly released and paid pensions for pensionable service and retirement age and of the parameters on which this amount depends – average pensionable service and average individual coefficient. The dynamics of the rate of change of the average amount of newly granted and paid pensions and of the share of the number of personal pensions for pensionable service and retirement age, determined in an amount up to the minimum, compared to the total number of paid personal pensions for pensionable service and retirement age have been studied.

The fifth sub-paragraph is entitled "Status and announcements for the development of pensions for pensionable service and retirement age in 2021 and

2022". It systematises and analyses information representative of the effects of the changes in the field of pension legislation in 2021 and the set parameters for the development of pension insurance in 2021 and 2022.

The second paragraph is entitled "Need and directions of development and improvement of the organisational framework of pensions for pensionable service and retirement age in Bulgaria". It is developed in two sub-paragraphs, in a total volume of 8 pages, in fulfillment of the eighth specific research task.

The first sub-paragraph is entitled "Need for development of the organisational framework of pensions for pensionable service and retirement age in Bulgaria". It states the reasons that provoked the formulation of proposals for changes in the field of the organisation of pensions for pensionable service and retirement age in Bulgaria:

- The established approach of calculating the level of the pension for pensionable service and retirement age in relation to the income used in its calculation, based on the duration of the pensionable service, but with relative weights of each year, determined rather as balancing the financial parameters of pension insurance and the possibilities of the system of public finances at a certain time (or period) element, but apparently without proper insurance-technical justification, sustainability and consistency.
- Bringing the desired social adequacy of pensions for pensionable service and retirement age as a priority to achieve at any cost, through administrative impact on the output of the system (increasing the established minimum amounts of this type of pension), whereby the connection with the real personal participation and financial contribution of the persons in the social insurance is lost.
- The administrative determination, without logical and insurance-technical binding, of the values of the parameters of the persons' participation in the social insurance (minimum and maximum amount of the insurable earnings) and of the social parameters of the granted payments (minimum amount of the

pension for pensionable service and retirement age and maximum amount of the received pensions).

- The complexity of the established functional dependence between the amount of the income derived from occupational activity and the amount of the pension for pensionable service and retirement age, mediated by the individual coefficient of the person.
- The increasing participation of the state budget in the current financing the costs of pension for pensionable service and retirement age. This is undoubtedly necessary, but the way in which it is carried out gradually leads to the depersonalisation of pension insurance and to its transformation into a form of provision, in which insurance installments lose their specific characteristics and insurance-technical identity and are getting closer to taxes.

The second sub-paragraph is entitled "Directions of development of the organisational framework of pensions for pensionable service and retirement age in Bulgaria". It presents the proposed changes in the organisational framework of pensions for pensionable service and retirement age in Bulgaria:

- Transition to a two-component model of formation of the amount of pensions for pensionable service and retirement age. The first component, conventionally presented as basic, is oriented towards the necessary guarantee of the desired social dimensions of the pension for pensionable service and retirement age, embodied in the ideas about the role of the minimum amount of this payment, but achieved naturally and as a result of the imposed necessary parameters (pensionable service, insurable earning and amount of the insurance installment) of social insurance of the persons. The second component, presented as a building-up (upgrading) one, is oriented towards implementing the necessary differentiation of the amount of the pension for pensionable

service and retirement age according to the personal social security contribution

- Linking the proposed base component of the pension for pensionable service and retirement age to insurance on the average monthly amount of insurable earnings in the previous year, and linking the proposed upgrade component of the pension for pensionable service and retirement age to insurance on the actual current personal insurable earnings of individuals.
- Determination and ongoing maintenance of the proposed basic and upgrading component of the pension for pensionable service and retirement age as a relative level compared to the relevant basic value (absolute amount of BGN 1 insurable earning, taken as a base value), instead of the previous practice of determining the pension in a nominal amount, calculated (and recalculated) according to the relevant formula.
- The basis for determining the basic component of the pension for pensionable service and retirement age should be the average monthly insurable earnings for the country in the year preceding the retirement of the persons. The basis for determining the building-up (upgrading) component of the pension for pensionable service and retirement age should be, as at the moment, the average monthly insurable earnings for the country for the 12-month period preceding the retirement of the persons, announced by the National Social Security Institute.
- The financing of the basic component of the pension for pensionable service and retirement age should be conditionally allocated and at the expense of insurance installments, paid equally by the insurer (or the self-insured person) and the state. The financing of the building-up component of the pension should

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¹ A two-component model of pension size formation, but in a different configuration, was also proposed by Al. Todorov in 2013 (Todorov, n.d.). The identification of a basic element and the possibilities of linking the amounts of insurance benefits with the personal social security contribution, measured by the time and mass of the insurance installments, are interpreted, but in a different aspect, also in research, a product of the Svishtov Scientific School of Insurance and Social Security (Yordanov Y., 2017); (Marinov, 2017).

be conditionally allocated and at the expense of personal insurance installments only.

- The relative amount of the insurance installments to finance the basic component of the pension for pensionable service and retirement age should be determined according to the minimum required duration of participation of the persons in the social insurance and the desired level of the payment in relation to the average monthly insurance earnings for the country for the previous year already proposed as a base value. The relative amount of the personal insurance installment should be at least equal to the relative amount of the insurance installment (contribution) assumed by the insurer (or the self-insured person) and the state, but on the monthly insurance earnings actually received by the person limited, for instance, to 3 times the amount of the average monthly insurance earnings for the previous year.
- The level of the basic component should be the same for all persons, formed as a result of social insurance with installments on the same earnings the corresponding amount of the average monthly insurance earnings in the previous year.
- The level of the upgrading component of the pension for pensionable service and retirement age should be determined according to the actual personal social security contribution, based on actual pensionable service, without conversion, taking into account the moment of retirement and the average expected duration of receiving the pension (Life Expectancy at Birth according to Mortality Tables published by the National Statistical Institute). Each unit of pensionable service (hour, day, month, year) should be "evaluated" by multiplying the relative amount of the insurance installment made (for insured persons made or payable) by the ratio between the personal insurable income and the average insurable income for the country for the period, to which it refers.

- Regular updating (adjustment or recalculation) of the amount of granted pensions. The adjustment or recalculation shall be carried out annually, starting from 1 July, and shall apply to all pensions granted until the end of the previous year. The update should be carried out for persons who do not participate in the social insurance after the granting of a personal pension for pensionable service and retirement age, while maintaining the already established levels of the two components, relative to, respectively, the average monthly insurable earnings for the previous year – for the basic component of the pension, and the average monthly insurable earnings for the period from 1 April of the previous year to 31 March of the current year – for the building-up component of the pension. The recalculation should be carried out in relation to persons who participate in the social insurance after granting a personal pension for pensionable service and retirement age. In this case, the level of the building-up component of the pension for pensionable service and retirement age should be increased, and the contribution of the persons after the grant of a pension should be distributed over the remaining part of the expected period of receiving the pension.
- Abolition of the statutory minimum and maximum amount of the pension pensionable service and retirement age.
- Current financing of payments should be carried out as a priority at the expense of current income from insurance installments, with the guaranteeing role of the state budget.

The third paragraph is entitled "Estimation and evaluation of the effect of the formulated proposals". It is developed in two sub-paragraphs in a total volume of 15 pages, in fulfillment of the ninth set specific research task.

The first sub-paragraph is entitled "Insurance-technical estimation of the parameters of the formulated proposals". In it, assumptions and calculations were made, on the basis of which the corresponding amounts of the collected insurance installments were indicated.

As a basis for determining the amount/level of the basic component offered, the level of the minimum amount of the pension for pensionable service and retirement age has been adopted, provided for the period 1 July – 31 December, 2022 by the Law on the State Social Security Budget for 2022 (BGN 392.57) compared to the average monthly amount of insurable earnings reached in the previous year (BGN 1169.25 for 2021, according to the data of the NSSI (Average monthly insurable earnings for the country, announced by the National Social Security Institute)) – 33.57%. On this basis, at the time of granting the pension for pensionable service and retirement age, the target level of the base component compared to the average monthly insurable income in the previous year is 35%.

When determining the required amount of the collected insurance installment (contribution), the following dependence is used:

$$P. S. \times \% I. Inst._b = D. P. \times L_b$$
, where:

- P. S. the length of the required pensionable service, giving the right to a pension for pensionable service and retirement age;
- % I. Inst._b required percentage of the insurance installment for the basic component of the pension for pensionable service and retirement age;
- D.P. duration of receiving the pension, coinciding with the life expectancy after reaching the age required to acquire the right to a pension, published by the National Statistical Institute;
- L_b level of the basic component of the pension for pensionable service and retirement age (35%) per BGN 1 basic insuarable earnings (contribution base).

The required amount of the insurance installment is differentiated for the various regimes under which the social security legislation provides for the acquisition of the right to a pension for pensionable service and retirement age. In the main case of retirement pursuant to Art. 68, para. 1 and 2 and Art. 68a of the Social Insurance Code, the amount of the insurance installment is 13.8%.

The calculations for the level of the building-up component of the pension for pensionable service and retirement age are made with the assumptions of the expected average life expectancy, officially announced by the National Statistical Institute, duration of participation in the social insurance equal to the required pensionable service, 7% personal insurance installment and various levels of the personal insurable earnings compared to the average insurable income for the country during each of the months of participation in the social insurance. The following dependency is used:

$$\sum_{i=1}^{n} P. S. \times \% I. Inst_{u} \times C_{s} = D. P. \times L_{u}$$
, where:

- P. S. the length of the required pensionable service, giving the right to a pension for pensionable service and retirement age;
- % I. Inst._u percentage of the insurance installment for the building-up (upgrading) component of the pension for pensionable service and retirement age;
- C_s level of personal insurable earnings compared to the average for the country in each month of the person's participation in the social insurance;
- D.P. duration of receiving the pension, coinciding with the life expectancy after reaching the age required to acquire the right to a pension, published by the National Statistical Institute;
- L_u level of the building-up (upgrading) component of the pension for pensionable service and retirement age per BGN 1 insurable income.

The calculated values of the level of the building-up (personal) component of the pension for pensionable service and retirement age are differentiated in the same way as the values of the amount of the necessary insurance installment guaranteeing the basic component of the payment are differentiated - according to the regimes in which the legislation provides for the acquisition of the right to pension for pensionable service and retirement age. At a level of personal insurable earnings compared to the average for the country between 70% and 300% (C_s takes values between 0.7 and 3.0) and the

corresponding length of pensionable service and average life expectancy after the retirement age, the level of the building-up component of the pension for pensionable service and retirement age, upon retirement pursuant to Art. 68, para. 1 and 2 of the Social Insurance Code, is from 15.12% to 64.81% for men and from 10.62% to 45.52% for women.

The nominal amount of the pension for pensionable service and retirement age, at the time of its granting, is defined as the sum of the product between the set level of the basic component and the average monthly insurable income for the previous year and the product of the calculated level of the building-up (upgrading) component and the average monthly insurable income for the country for the 12-month period preceding the retirement of persons. Formed in this way, the amount of the pension varies according to the personal social security contribution of the persons.

Values of the increase of the upgrading component for 1 year of participation in the social insurance after the person's retirement have been calculated. These values vary depending on the remaining period of receiving the pension and the level of personal insurable earnings compared to the average for the country.

The second sub-paragraph is entitled "Socio-economic evaluation of the parameters of the formulated proposals". A comparison has been made between the hypothetical amounts of a pension for pensionable service and retirement age, granted in 2020 and calculated in accordance with the regulations in force at that moment (including recalculated according to the changes in the social security legislation from the end of 2021), and the amounts of a pension for pensionable service and retirement age, taking into account the functional dependencies described with the formulated proposals. When performing the calculations, the values of the main parameters, which are involved in determining the amount of the pension for pensionable service and retirement age in 2020, published by the National Social Security Institute are used.

The hypothetical values of the amounts of the basic component, of the amount of the building-up component and of the total amount of pension for pensionable service and retirement age are calculated for the amount of the insurance installment around 21%:

- 13.8% (distributed equally between the insurer and the state) of the average monthly insurable income for the country for the previous year to achieve an equivalent social insurance contribution, consistent with the level of the received basic component in general of participation in the social insurance under the conditions of the third category of work and acquiring the right to a pension in accordance with Art. 68, para. 1 and 2, and
- 7% personal insurance installment from personal insurable earnings to achieve an equivalent social insurance contribution, determining the level of the receiving building-up component.

In summary of the presentation in **Chapter Three**, the following **conclusions** are drawn:

- The development and state of pensions for pensionable service and retirement age during the period 2000 – 2022, in general, is a reflection of their organisational framework established and repeatedly changed during the period. The pension for pensionable service and retirement age is the most mass payment of the public pension insurance, granted in the highest amount. The summarised statistical information testifies to a gradual convergence of the amounts of the newly granted and paid pensions for pensionable service and retirement age. The higher amount of the newly granted pensions, with decreasing average values of the average pensionable service and the average individual coefficient, is the result of the dynamics of the insurable earnings, with which the relevant calculations are tied. The increase in the minimum amount of the pension for pensionable service and retirement age is considerable, especially in 2021 and 2022, as a result of which the share of pensioners with a pension calculated in an amount below the minimum at the

end of 2021 exceeds 51%. In practice, this means that, all other conditions being equal, 51% of insured persons are benefited at the expense of the social insurance totality, the pensioner totality and the society, which does not motivate active participation in the social insurance process with incomes exceeding the specified minimum levels.

- The summarised statistical information, indicative of the state of pensions for pensionable service and retirement age in the period 2000 2022, testifies to the derivation, as a priority of their development, of the desired and necessary social adequacy, achieved, however, primarily through the administrative determination of the relevant values of a minimum amount and enhanced dotation participation of budgetary resources in financing current expenses.
- The insufficient use of the possibilities of the economic mechanism of the public pension insurance, by determining balanced parameters of the social insurance of the persons and of the granted payments, to generate the necessary social insurance contribution for each insured person, conditions the gradual depersonalisation of the differentiating link between the amount of the granted pensions and the time and the amount of insurance installments made. A possible option to overcome this situation, in a long-term aspect, is the transition to a two-component model of formation of the amount of the pension for pensionable service and retirement age, determined and maintained over time as a relative level of BGN 1 basic insurable income, secured with real prior participation with installments, including at the expense of a budget resource.
- The calculations made in connection with the formulated proposals when acquiring the right to a pension in the mass case according to Art. 68, para. 1 and 2 of the Social Insurance Code, testify to the achieved binding of the desired social adequacy, guaranteed by the proposed basic component of the pension for pensionable service and retirement age, and the differentiation of the total amount of the payment, achieved through the proposed upgrading

component of the pension, with the participation of the persons in the social insurance at the amount of the insurance installment around 21%. At the same time, the amount of the insurance installment required to cover current costs only for pensions for pensionable service and retirement age is, respectively, 22.48% in 2020 and 23.16% – for the first 9 months of 2021. The required amount of the insurance installment is expected to increase given the imputed growing commitments of the state social security, regulated by the recent changes in the method of determining (and subsequent updating) the amounts of this payment and its lower and upper limits established as a social corrective.

Conclusion

Finally, in a summarised form, the main conclusions and achieved research results are presented. The fulfillment of the set goals and tasks has been established, with which the thesis of the dissertation is argued. The proposed organisational changes represent a logical conclusion to the study. They are the result of systematisation, summarisation and author's interpretation of a sufficient amount of information of a theoretical-methodological and empirical nature and have the capacity to achieve a rational balance between the desired social adequacy and the necessary differentiation of social insurance payments based on the social insurance contribution in Bulgaria, as an alternative to the used currently restrictive administrative impacts on the output of the pension system.

IV. DIRECTIONS FOR FUTURE RESEARCH IN THE FIELD OF THE DISSERTATION THESIS

Questions and problems that remained outside the scope of the dissertation outline the directions for future work in the field of the researched issues. As such, the following can be indicated:

- the detailed regulation and regulatory system of the formulated proposals;
- the technological aspects of the administrative process for the implementation of the proposals to switch to a two-component model of the amount of the pension for pensionable service and retirement age;
- the development of options with the right of personal choice of participation in social insurance with a desired amount of personal insurance installment.

V. LIST OF THE SCIENTIFIC CONTRIBUTIONS OF THE DISSERTATION THESIS

- 1. The summaries and systematisations regarding the content characteristics of public pension insurance and the socio-economic specifics of pensions for pensionable service and retirement age.
- 2. The study and systematisation of the organisational aspects of public old-age pension insurance in the context of the interconnection between the economic foundation and the social dimensions of pensions for pensionable service and retirement age in Bulgaria.
- 3. The assessment of the development and state of pensions for pensionable service and retirement age in Bulgaria during the period 2000 2022, as a basis for reasoned identification of problems in the mechanism of determining and updating their amounts.
- 4. Formulated proposals for the development and improvement of the organisational framework of pensions for pensionable service and retirement age by switching to a two-component model of the formation of their amount, determined and maintained over time as a relative level of BGN 1 basic insurable earnings, substantiated with insurance-technical calculation and socio-economic assessment of the expected effect, with the capacity to achieve a rational balance between the desired social adequacy and the necessary differentiation of insurance payments in Bulgaria based on the social insurance contribution, as an alternative to the currently used restrictive administrative impacts on the output of the pension insurance system.

VI. PUBLICATIONS RELATED TO THE TOPIC OF THE DISSERTATION THESIS

A. Studies published in non-refereed peer-reviewed journals or published in edited collective volumes

1. Angelova, Zh. Approaches and Practice in Determining the Amounts of Social Insurance Payments due to Old Age. // Annual Almanac "Scientific Research of Doctoral Students" – Edition XIII – 2020, Book 16. Academic Publishing House "Tsenov" – Svishtov, 2020. p. 145 – 167.

ISSN: 1313-6542

https://almanahnid.uni-svishtov.bg/title.asp?title=2643

B. Articles and reports published in non-refereed peer-reviewed journals or published in edited collective volumes

1. Angelova, Zh. Approaches and Practice in Determining the Social Security Contribution to Public Social Insurance. // E-Journal "Dialog", Issue 3, 2021.

ISSN: 1311-9206

https://dialogue.uni-svishtov.bg/title.asp?title=2684#

2. Angelova, Zh. Possibilities for Regulation of Social Insurance through the Limits of Insurance Income. // In: International Scientific and Practical Conference "Sustainable Development and Socio-Economic Cohesion in the 21^{st} Century: Trends and Challenges". Svishtov, $8^{th} - 9^{th}$ November 2021, Volume I. p. 421 - 428.

ISBN 978-954-23-2067-8

https://dlib.uni-

svishtov.bg/bitstream/handle/10610/4505/Tom1.pdf?sequence=1&isAllowed=y

VII. REFERENCE FOR THE FULFILLMENT OF THE MINIMUM NATIONAL REQUIREMENTS IN CONNECTION WITH THE PROCEDURE FOR AWARDING OF EDUCATIONAL AND SCIENTIFIC DEGREE "DOCTOR"

Indicator	Points
Group of indicators A.	
Indicator 1. Dissertation for awarding of the educational and scientific degree "doctor"	
Opportunities for Economic Regulation and Social Adaptation the Amounts of	50
Pensions for Pensionable Service and Retirement Age in Bulgaria	
The dissertation has been discussed and a procedure for its defense has been opened.	
Group of indicators D.	
Sum of indicators from 4 to 10	
7. Articles and reports published in non-refereed peer-reviewed journals or published	
in edited collective volumes	
Angelova, Zh. Approaches and Practice in Determining the Social Security	10
Contribution to Public Social Insurance. // E-Journal "Dialog", Issue 3, 2021.	İ
ISSN: 1311-9206	İ
https://dialogue.uni-svishtov.bg/title.asp?title=2684#	İ
(№1827 in the National Reference List of Contemporary Bulgarian Scientific	İ
Publications with Scientific Review)	İ
Angeleye 7h Descibilities for Degulation of Social Insurance through the Limits	10
Angelova, Zh. Possibilities for Regulation of Social Insurance through the Limits of Insurance Income. // In: International Scientific and Practical Conference	10
"Sustainable Development and Socio-Economic Cohesion in the 21st Century:	İ
Trends and Challenges". Svishtov, 8th – 9th November 2021, Volume I.	İ
p. 421 – 428. ISBN 978-954-23-2067-8	İ
https://dlib.uni-	İ
svishtov.bg/bitstream/handle/10610/4505/Tom1.pdf?sequence=1&isAllowed=y	İ
	İ
(Nº24400 in the National Reference List of Contemporary Bulgarian Scientific	ĺ
Publications with Scientific Review)	
9. Studies published in non-refereed peer-reviewed journals or published in edited	
collective volumes	
Angelova, Zh. Approaches and Practice in Determining the Amounts of Social	15
Insurance Payments due to Old Age. // Annual Almanac "Scientific Research of	ı
Doctoral Students" - Edition XIII – 2020, Book 16. Academic Publishing House	İ
"Tsenov" – Svishtov, 2020. p. 145 – 167.ISSN: 1313-6542	İ
https://almanahnid.uni-svishtov.bg/title.asp?title=2643	1
(№1156 in the National Reference List of Contemporary Bulgarian Scientific	1
Publications with Scientific Review)	<u> </u>
Total number of points scored - sum of indicators from 4 to 10	35
Required number of points – sum of indicators from 4 to 10	30

VIII. INFORMATION REGARDING THE RESULTS OF THE AUTHENTICITY TESTING

The dissertation was subjected to a text check for originality through the Anti-Plagiarism System of D. A. Tsenov Academy of Economics. The check was performed with the StrikePlagiarism software. The values reported in the Similarity Report are, respectively, 27.95% for SC1, 10.69% for SC2 and 0.81% for QC. The Departmental Council of the Department of Insurance and Social Security, at the preliminary discussion, accepts the opinion of the internal reviewers that:

- The dissertation includes parts of published and accessible on the Internet, through the website of D. A. Tsenov Academy of Economics, author's papers, prepared and presented to the scientific community in connection with testing the results of the research work a circumstance correctly indicated in the relevant places in the expose: p. 62 (footnote), p. 138 (footnote) and p. 142 (footnote). The total volume of parts of the author's published works included in the dissertation study is, respectively, 5278 words and 32046 characters.
- Everywhere in the expose of the dissertation, the relevant sources of information are correctly indicated author's research, legal act, publication with statistical information, etc.
- The established similarity with materials available on the Internet is due exclusively to:
- * the specifics of the pension insurance terminology the working concepts used in theory and practice, including those introduced by the regulations, contain a series of specific words with a strictly defined sequence;
- * the use of indicators in the characterisation of the development and assessment of the state of pensions for pensionable service and retirement age with an established name containing a series of specific words in the sequence used in the official publications with statistical information of the NSSI and NSI;
- * the official disclosure of detailed information about the activities of the National Social Security Institute, including applicable regulations, methodological guidelines, reports, statistical information, analyses, etc., widely used in commentaries and popular materials and expert opinions available on the Internet.

IX. DECLARATION OF ORIGINALITY AND AUTHENTICITY

In connection with the procedure for awarding of educational and scientific degree "Doctor" in the doctoral programme "Finance, Money Circulation, Credit and Insurance (Insurance and Social Security)", I declare that:

- 1. The dissertation on the topic "Opportunities for Economic Regulation and Social Adaptation the Amounts of Pensions for Pensionable Service and Retirement Age in Bulgaria" is an authentic material and represents the author's interpretation of theoretical and methodological statements and statistical information in the field of the investigated issue. It is developed in strict compliance with the requirements of the Copyright and Related Rights Act, including by properly citing and referencing the sources of information used.
- 2. The results achieved and contributions made in the dissertation are original and have are been borrowed from research and publications in which the author has not participated.
- 3. The information provided by the author in the form of copies of documents and publications, personally compiled references, etc. corresponds to the objective truth.
- 4. Scientific results that have been obtained, described and/or published by other authors are duly and extensively cited in the text and in the bibliography.

Declarant:

Svishtov

The signature was deleted on the basis of Article 4, Paragraph 1 of Regulation 679/2016.

(PhD student Zhaneta Angelova)