

STUDY OF THE IMPACT OF RAISING THE RETIREMENT AGE ON ECONOMIC GROWTH IN THE DIGITAL ECONOMY IN RUSSIA AND EUROPE

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Abstract: *The article presents the results of a study of the impact of pension reform in Russia on economic growth and quality of life in a digital economy, taking into account the experience of raising the retirement age in Europe. The aim of the study was to identify and analyze the impact of raising the retirement age on economic growth in the context of the development of digitalization in Russia and a comparative analysis with European countries.*

Results: the studies conducted allowed us to develop a system of indicators characterizing the impact of raising the retirement age on economic growth and the quality of life of the population in the context of digitalization.

The authors found that raising the retirement age leads to a change in labor relations in Russia and Europe. The application of the proposed indicators can be used in the formation of a balanced state socio-economic policy in the field of institutional changes in the field of labor relations and raising the retirement age. The study was carried out under a grant from the RFBR № 19-010-00362 A.

Keywords: *Pension reform, Economic growth, Quality of life, Digital economy, Digitalization, Russia, Europe.*

1. INTRODUCTION

One of the trends in the current socio-economic situation in many countries of the world is the aging of the population, respectively labor resources.

This trend is expressed in an increase in the share of elderly citizens in the age structure of almost all countries of the world. Thus, according to the United Nations and Russian researchers [1] over the past 65 years, the proportion of the older age group (from 65 years) has increased from 5% to 8% in total the world. According to UN forecasts [2], these trends will continue and intensify. So, in developed countries, the proportion of senior citizens increased from 8 to 17%, in Russia – from 5 to 13%. According to Russian experts, by 2050 it will reach 22%, in developed countries – 27%.

The noted demographic trends are expressed in an increase in the share of elderly citizens in the age structure of the population (aging of the population) [3]. These trends are objective in nature. Thus, a significant improvement in the quality of life, medical care, education, and an increase in income levels explain the phenomenon of increasing people's life expectancy, which is

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confirmed by statistical data. In Russia and in Europe, a steady growth trend in life expectancy is recorded. The noted facts lead to an increase in the load on the pension system of European countries and Russia. In addition, according to experts, an aging population will slow down the growth rate of GDP by 0.23 percentage points on average each year from 2019 to the 2025th [4].

It should be noted that in different countries there are specific problems inherent only in a particular country. For example, in Russia, general trends in population aging are aggravated by the presence of demographic waves dating back to the time of World War II. They increase the imbalance of the pension system. It faces either an “unexpected” surplus (this was the case in the early 2000s, when the small generation born in the 1940s retired, and the large generation born in the 1980s was part of the workforce), then unexpectedly quickly growing deficit. In addition, in Russia today more than 12 million people are employed in the informal economic sector who do not pay or pay contributions to the pension system only partially and thereby do not participate in the formation of a joint pension fund. However, pension legislation provides them with significant pension guarantees.

Another aspect of the problem is that there are fundamental differences in the structure of needs of pensioners of different ages. This, along with monetary, requires non-monetary forms of support during the retirement life. While relatively “young” pensioners are more in need of money, in older retirement ages the demand for institutional services of the social sector (health care, pharmaceuticals, care services), which cannot be satisfied on the basis of a moderate increase in pensions or their indexes, sharply increases.

The aging of the population coincided with an important global trend - global digitalization and informatization.

Two global trends - the growing share of older people and the automation of production and business processes form dangerous “scissors”. Thus, large-scale digitalization of socio-economic and labor processes, aimed at economic growth, requires new knowledge and competencies, transforming social and labor relations. The economy needs “flexible” young qualified personnel, ready to work in a highly dynamic digital environment, able to quickly learn new technologies. Is the older generation able to work actively and productively in a digital environment, providing the necessary economic growth?

Studies by a number of scientists have shown that today even a young specialist faces certain problems in working with digital data. Personnel over 50 experience even more difficulties. However, retraining an experienced employee older than 50 years costs exactly half the price than investing in a young specialist.

Highlighted trends determine the implementation of pension reforms in terms of extending the retirement age. The process of reforming the pension system, which is one of the most important components of the social policy of European countries and Russia, makes serious adjustments to the functioning of social and labor relations and leads to the retention of older workers in the labor market (at enterprises).

Accordingly, the purpose of this study was to identify and analyze the degree of influence of raising the retirement age on economic growth in the context of the development of digitalization in Russia and a comparative analysis with European countries.

Materials (literature review). It should be noted that a variety of scientific works in the field of studying the effect of population aging on economic growth (Iga Rudawska, 2010 [5]; Carolin Nerlich and Joachim Schroth, 2018 [6], Iparraguirre J.L., 2020 [7] and many others).

For example, the “overlapping generation” (OLG) model (Baksa and Munkacsi, 2016 [8]) shows the macroeconomic effects of population aging on European countries. The model takes into account changes in the structure of the population due to a decrease in the birth rate and an increase in life expectancy, which has important consequences for the supply of labor in the labor market. The advantage of this model is that it allows assessing the impact of an aging population on the basis of a specific set of macroeconomic indicators, as well as assessing the consequences of various types of pension reform in European countries. This model does not take into account the influence of axiological and many other aspects of pension reforms on economic growth, quality of life during the transformation of labor relations in the context of digitalization, etc.

2. METHODOLOGY AND RESEARCH METHODS

As part of the study, scientific publications of foreign and domestic authors were used. In the process of summarizing the results, a systemic axiological methodology, a dialectical approach, general scientific research methods such as induction and deduction, analysis and synthesis, and statistical methods of information processing were used.

To study the effect of raising the retirement age on economic growth and the quality of working life in Russia and in Europe, the annual research indicators of the Federal State Statistics Service of Russia (www.gks.ru) are taken.

The concept of „economic growth” is interpreted as a steady tendency to increase the volume of gross domestic product, which depends, inter alia, on the increase in the working age of people employed in the economy and the transformation of social and labor relations, which helps to improve the quality of life of the population.

The category of the quality of life of the population in the context of this study is considered by the authors as the degree of satisfaction of certain human needs, characterized by socio-economic indicators that determine the institutional and axiological perception of reality, both at the social and individual levels.

The authors proposed a hypothesis that raising the retirement age leads to the transformation of social and labor relations at enterprises, which affects economic growth and the quality of life of the population.

3. RESULTS

The analysis of statistical and analytical information revealed that the pension reform in Russia in terms of raising the retirement age has led to the transformation of the system of social and labor relations at enterprises. Thus, according to the survey (more than 1,700 respondents – persons of pre-retirement age and working pensioners) more than 22% of respondents changed working conditions and labor relations, in particular 5.5% were transferred to flexible forms of employment, 8.7% were transferred to fixed-term labor contract, 6.1% of respondents reduced wages without reducing the volume of official duties. Practically in all enterprises where the

survey was conducted, changes were made to collective labor contracts. In addition, studies have shown the emergence of new problems and contradictions in the system of social and labor relations in the framework of the implementation of pension reform. For example, in connection with the automation and digitalization of technological processes, the number of employees is reduced (this trend is noted in corporate social reports of most large companies); however, if it is necessary to preserve jobs for retirees, there is an imbalance in the age structure of workers towards aging, which contributes to growth opportunistic behavior, which ultimately leads to a decrease in the efficiency and quality of labor. An employer striving to increase labor productivity is switching to flexible forms of employment in relation to persons of pre-retirement age.

The studies revealed the relationship between the system of social and labor relations and the pension system, shown in Figure 1. Identifying the relationship between social and labor relations and pension, the logic of the authors' reasoning was formed as follows, for example, the subject is an element of the system of social and labor relations. Upon reaching his retirement age, he becomes an element of the pension system, and it should be noted that he can remain in the service station system for some time. This transition (from the service station system to the software system) is regulated by certain institutions of the social and labor relations system (SLRS) and the pension system (PS).

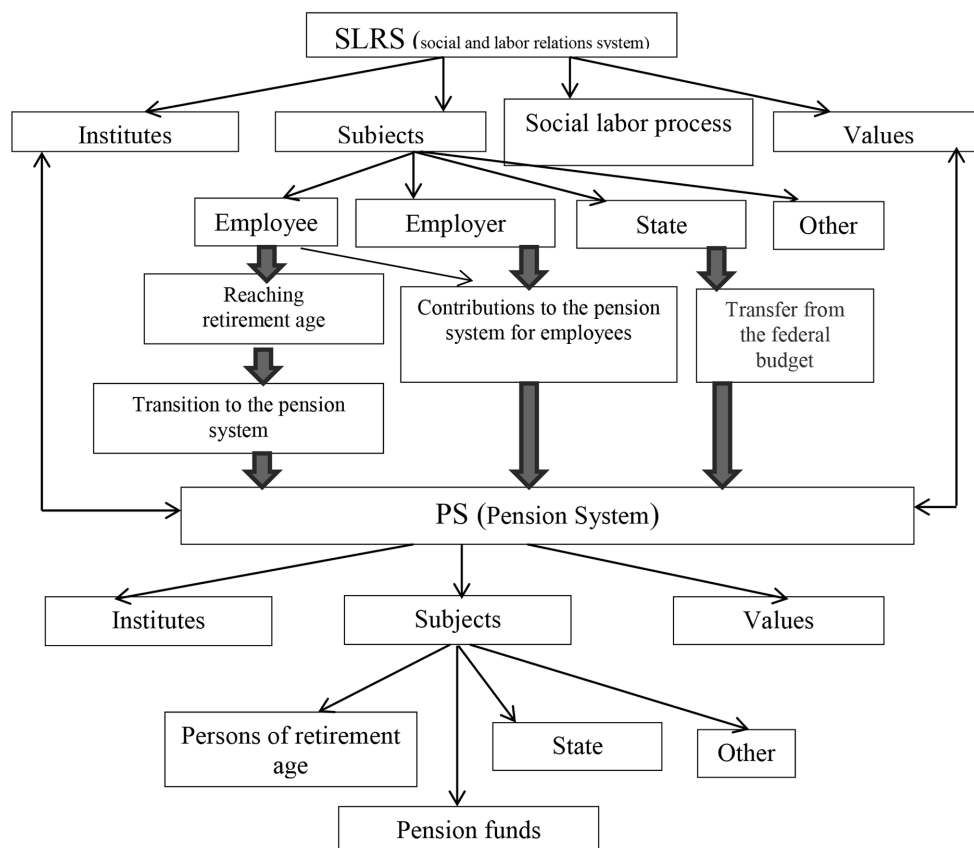


Figure 1. The relationship between the system of social and labor relations and the pension system

The SLRS subject “employer”, within the framework of certain SLRS and software institutes, is obligated to transfer certain contributions to the pension system for the “employee” (moreover, in the certain SLRS form, the employee must independently make these contributions to the pension system).

In addition, the theoretical and methodological analysis of these categories by the authors showed the same axiological orientation of the SLRS (social and labor relations system) and the PS (pension system) – to ensure the quality of life, manifested both on the public (in the form of macroeconomic indicators of economic growth and the level of social tension), and on the individual (in the form of meeting the needs and needs of man) levels. Accordingly, the relationship of the value-semantic perception of institutional changes in the system of pension provision by subjects of social and labor relations and pension provision is visualized. Then, the value-semantic structures obtained in the assessment by the subjects of service stations and software of the occurring institutional changes in pension provision leads to the transformation of values in the system of social and labor relations.

Consequently, the institutional reform in terms of extending the retirement age due to transformations in the institutional forms of the system of social and labor relations, on the one hand, determines the need to prevent crisis trends in the economy, ensuring economic growth, and on the other hand determines new changes in social and labor relations that affect the quality of life of the population.

Thus, there is a steady connection between the increase in the retirement age and socio-economic changes that affect economic growth and the quality of life of the population (Figure 2).

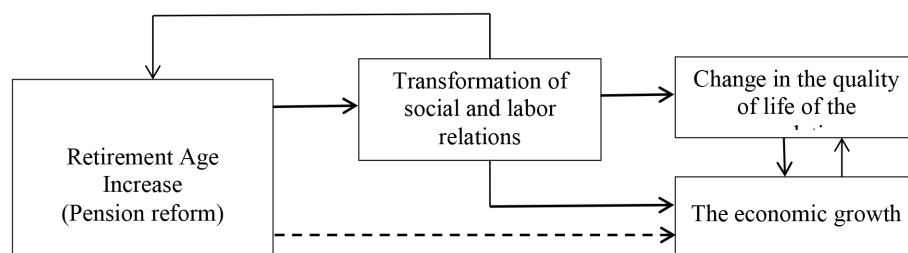


Figure 2. The effect of the transformation of social and labor relations on economic growth and the quality of life of the population in the context of pension reform

So, for example, employers (enterprises) are striving for production growth, which should be achieved by increasing labor productivity, which in turn is achieved through automation and digitalization, which leads to an increase in enterprise income, and, accordingly, at the macro level, to GDP growth. The growth of employer income leads to an increase in budget revenues (through tax revenues), respectively, the state can increase social spending (meeting public needs) and economic development. The growth of enterprise incomes leads to an increase in the income of workers who satisfy individual needs, which leads to an increase in the quality of life of the population.

The authors propose a system of indicators (Figure 3) that characterize the effect of raising the retirement age on economic growth and the quality of life of the population, based on the criteria for economic growth, which is due to the optimal ratio between production results, social and individual needs. In the context of this study, a criterion is a key feature defined by the measurement of a specific process, in particular economic growth and quality of life. Based on the classical interpretation of economic growth as an economic category, taking into account the factors that determine it, the authors determined the following criteria:

1. The level of institutional changes in the systems of social and labor relations and pension provision, which determines the ability of the state regulation mechanism to eliminate and prevent negative social consequences that can lead to a decrease in GDP.

2. The level of growth of labor resources in the economy due to institutional changes in the system of pension provision and the transformation of the system of social and labor relations, which determines the absence of a shortage in labor resources, as the main factor in production.
3. The standard of living, estimated through GDP per worker in the economy.

The system of indicators characterizing the effect of raising the retirement age, which determines the transformation of social and labor relations on the “quality of life of the population” and “economic growth” includes two groups of “economic effect”, “social effect”, which allowed the analysis of these categories in the context of labor changes relations in the context of pension reform and to identify a sustainable relationship between these processes. Thus, economic growth in the conditions of institutional changes in pension provision is achieved due to the “NOT transition” of workers from the system of social and labor relations to the pension system, while the “income level” of the SLRS subject and the “consumption level” are maintained (or increased). Their taxpayer status regarding income tax will be preserved, the transfer of the federal budget to the pension system will be reduced, etc.

Based on the systemic axiological research methodology, the authors come to the conclusion that in order to achieve economic growth (as an economic effect) and improve the quality of life of the population (social effect), it is necessary to exert a controlling influence on the process of transformation of the system of social and labor relations in the context of pension reform. It is necessary to correlate goals, objectives and value-semantic perception of the subjects of the system of social and labor relations and the subjects of the pension system. Therefore, the goals, objectives and axiological aspects of the transformation of the system of social and labor relations are due to the possibilities of finding equilibrium in this system based on the balance of economic (determining economic growth) and social (determining the quality of life) effects.

In the process of transformation under the conditions of changes in pension legislation, the system of social and labor relations can affect the quality of life of the population and economic growth in different ways. One of the consequences can be to ensure and improve the quality of life of the population and achieve economic growth due to the value-semantic adoption of change systems by all subjects. Or vice versa, the inhibition of processes (not leading to an increase in the quality of life and economic growth) as a result of a complete or partial value-semantic rejection of the ideas of pension reform.

During the study, the authors determined the conditions for the implementation of the pension reform in terms of raising the retirement age, which will positively affect economic growth and improving the quality of life of the population:

- formation (change) of a new system of values in social and labor relations, which has a mechanism for the proper institutional support of interactions based on a balance of interests of subjects of social and labor relations in the context of the implementation of the pension reform;
- digitalization of social and labor processes, assuming safe and favorable working conditions;
- a new value-motivational field of subjects of social and labor relations, determining the labor behavior of persons of pre-retirement age, ensuring staff commitment and contributing to the formation of the necessary responsibility in social and labor processes.

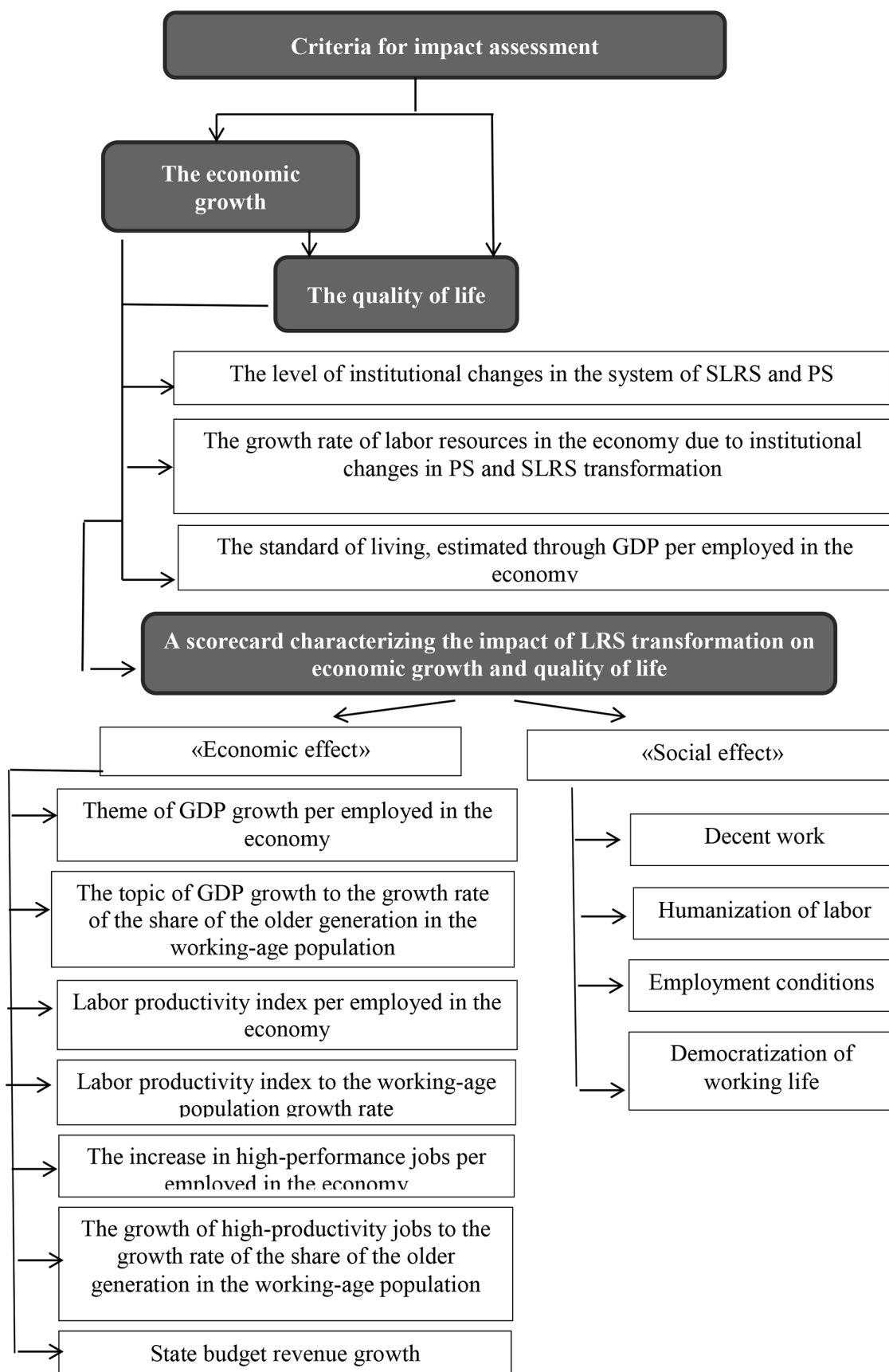


Figure 3. Criteria and a system of indicators characterizing the impact of the transformation of service stations on economic growth and the quality of life of labor relations in the context of pension reform

4. DISCUSSION

The issue of the impact of pension reform in terms of raising the retirement age on economic growth and the quality of life of the population is discussed quite widely in the scientific sphere of Russia and Europe.

A number of analysts say that „pension reform will slow the recovery of economic growth.” This is difficult to justify in the general equilibrium model: an increase in the number of workers, even with a decrease in pension income, should usually lead to an increase in output or in the “overlapping generation” model. The system of indicators proposed by the authors based on the point of view that raising the retirement age leads to transformations in the system of social and labor relations and, accordingly, changes in the “quality of life of the population” and “economic growth” will most objectively reflect both positive and negative trends pension reform.

It should also be noted the possible negative social consequences of raising the retirement age, especially in Russia. So, according to the data in Table 1, with a sufficiently low life expectancy for men in Russia 66.5 years, their planned retirement age will be 65 years.

Table 1. Life expectancy in Russia and European countries

Country	Life expectancy according to 2017, years		Retirement age by 2020, years	
	Men	Women	Men	Women
Bulgaria	71,1	78	64,1	61,2
Great Britain	78	82,3	65	65
Germany	78,7	83,4	65,7	65,7
Spain	80,1	85,5	65,3	65,3
Italy	80,5	84,8	66,7	66,7
Lithuania	68,1	79,1	63,2	61,4
Slovenia **	78	84,0	60	59,67
Finland	78,3	83,8	63,6	63,6
France	79,7	85,6	65	62
Sweden	80,7	84,0	65	65
Russia	66,5	77,62	65*	60*

* transition period. Phased transition to the accepted retirement age. In 2020, in Russia, the retirement age of men was 61.5 years, women - 56.5 years

** according to data for 2018

It is worth noting that highly skilled workers have fewer incentives to retire early – due to stronger income losses. An increase in the retirement age will strengthen, first of all, competition among less qualified older workers. According to professor Hosni Zoabi, the increase in the duration of the active economic activity of the population itself may not lead to economic growth or the accumulation of skills and human capital.

Periodic sources provide evidence that professional development programs are being developed for people of pre-retirement age, the amount of financing of which can amount to 5 billion rubles annually.

Of course, the content of these programs is ambiguous, and they do not cover the entire spectrum of necessary topics that allow you to build skills for working in the digital economy. There

are a number of expert estimates that indicate that an amount of 5 billion rubles will not be enough to educate everyone who has to stay in the labor market. At the same time, the capacity of the future labor market is not clear.

It is important that so far in Russia, salaries have mainly declined after 40-45 years. The new generation of pre-retirement age is likely to be quite qualified, and it is highly likely that employers will spend slightly less on their attraction than on younger workers. Theoretically, this could have a positive effect on investment and growth.

5. CONCLUSION

The authors revealed that raising the retirement age leads to a change in labor relations in Russia and Europe. The application of the proposed indicators can be used in the formation of a balanced state socio-economic policy in the field of institutional changes in the field of labor relations and raising the retirement age.

The impact of pension reform on the system of social and labor relations, causing another round of their transformation, can be traced in a number of areas.

Thus, the authors revealed and proved a stable relationship between the system of social and labor relations and the pension system through their subjects, as well as through the interdependent relationship of the institutional and axiological components of these systems.

Firstly, the positive aspect of this pension reform, which has raised the retirement age in Russia to 65 for men and to 60 for women, is that it will delay older workers in the labor market, which will have a small but positive effect on GDP countries and smooth out the negative effect of reducing the working-age population. At the same time, in the system of social and labor relations, growth of negative trends is forecasted by employees, both of the pre-retirement age and the younger generation [3].

Secondly, a change in the requirements of employers to employees towards greater flexibility in labor relations and adaptability to modern technologies is forecasted, since these trends are already visible today in the field of social and labor relations.

Thirdly, the burden on employers and employees themselves will increase in terms of advanced training. Currently, various state programs allow employees to undergo professional retraining and advanced training at the expense of the state budget. In the future, this obligation will fall on the shoulders of the employer and the employee himself.

Fourth, since, according to forecasts, there are general trends in the aging of the population and a decrease in labor resources, an increase in the economy's demand for the employment of older people is predicted, the implementation of the pension reform will allow employers to smoothly make this transition to the use of pensioners and pre-pensioners as part of their activities.

Fifth, it should be noted that according to research by a number of scientists [4], the younger generation is not afraid of raising the retirement age, but rather treats it positively.

Sixth, raising the retirement age will allow legalizing the work of pensioners, whom employers often have to transfer to a fixed-term employment contract, to civil law relations, and to apply various forms of informal labor relations.

However, it is necessary to notice that in addition to the positive aspects of the pension reform, negative trends are also predicted.

Firstly, the older generation, retiring in the context of the starting steps of the pension reform, has lower competencies for working in the digital economy, lower flexibility and adaptability, often weaker health, at least according to employers. These factors can lead to higher unemployment.

Secondly, even with the preservation of the workplace, a tendency towards a decrease in labor productivity is possible due to lower career aspirations than among youth, lower labor efficiency, and health problems.

Thirdly, the most vulnerable in the context of this reform is the category of public sector employees who have low wages and regard it exclusively as an increase in their pension.

It is obvious that these negative changes in the system of social and labor relations due to changes in pension legislation will have an impact on economic growth and on the quality of life of the population.

Thus, the relationship between the implementation of the pension reform and the transformation of the system of social and labor relations of enterprises, which affect both the quality of life of people of pre-retirement age and economic growth, is clearly traced.

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