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"Decent Pension" VS Balanced Budget: The Russian Solution to the Dilemma

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***Abstract*—According to the internationally accepted practice, it is impossible to solve two problems simultaneously, i.e. both to balance the long term federal budget and to maintain the level of living standards for people after their retirement. The recent substantiating examples are the failures of the attempt to implement ambitious pension programs in Ukraine and in Greece, in particular. It is common for populist governments to adopt generous pension schemes under the influence of suddenly increased budget revenues (for example, due to promising changes in the global market). This can also result from the possibility to get low-interest credits at the global financial markets. The problem arises when the sources of pension funding appear to have been temporary. At this point, it is necessary to choose between the two harsh alternatives. The first option is a balanced budget, but tough and painful for the population pension reform implementation. The second variant is generous funding of pensions in the current period followed by a devastating level of hyperinflation in the future. The "budget vs pension" dilemma reinforces the fact that no one can overcome the dynamic budget constraint.**

***Keywords*—market reforms, "budget vs pensions" dilemma, "age vs pensions" dilemma, individual choice**

I. Introduction

Unfortunately, the Russian economy also faced this dilemma. The article deals with the factors that pushed the country to a difficult choice. The first step on this way was the Russian Government's decision to increase the retirement age, known as the "pension reform". In the first years of Russian economic reforms, the disastrous state of the budget prevented the possibility to improve the welfare of pensioners. However, at the beginning of the 21st century, the government adopted the program in order to gradually align the opportunities of the strengthened federal budget with the interests of Russian pensioners. A sharp increase of budget revenues due to the soaring oil prices stimulated the government to make a populist decision referring to pension problems. The study focuses on the results of that decision.

The modern economy demonstrates a wide range of pension systems. At one extreme, there are economic systems where the state has entirely committed itself to paying pensions to the eligible citizens. At the other extreme, the countries demonstrate the opposite position of the state refusing to finance pensioners. All other systems are combinations of the two approaches. For example, the state provides pensions only to those citizens who have worked in the public sector of the economy for all their lives or for a specified period [1].

II. Problem Statement

It is noteworthy that the countries where the state guarantees the reliability of the pension system are at a significant risk of budget imbalances (budget deficit). However, the countries where the state has entirely or to some extent delegated its obligations to finance the elderly to the citizens, have less problems with the budget deficit and public debt. Specifically, in these countries, the efforts to ensure the life standards of elderly people hardly ever result in a breakdown of public finance.

III. Research Questions

Various factors force the authorities to adopt a particular pension system. It is obvious that exclusively economic reasons are often less influential than political, historical, social or cultural ones. Each country has a unique set of factors that determined the choice of the pension model and its evolution. Russia is no exception in this respect.

IV. Purpose of the Study

The pension model currently existing in Russia bears the imprint of the national history. From the beginning of market reforms in Russia and for about a decade after that, this system has retained the pension model of the USSR. After solving tactical problems, the Russian authorities began to transform the pension system. According to the initial plan, it was supposed to gradually reduce the degree of state involvement in the pensions funding. Soon, the events occurred that turned the vector of pension reforms in the opposite direction. At the same time, the state turned out to become overloaded with obligations. At first, the threat of default looked far-fetched. However, after the financial crisis of 2008, the "budget vs pension" dilemma was fully manifested. Currently, the Russian government has taken some steps to adapt the pension system to the current state of the budget. These actions reveal the future events.

V. Research Methods

The problem of pension financing belongs to the area of intertemporal choice. At the household level, the optimal solution is to allocate current income to consumption, savings and investment. The behaviour analysis is conducted within the framework of the standard model of dynamic budget constraint [2]. The original hypothesis was formulated by J. M. Keynes [3]. Further studies demonstrated that the function of marginal propensity to save is constant [4]. Models of permanent income [5] and life cycle savings [6] are currently in use. The changes taking place in the modern economy make adjustments to the basic model. In particular, there are modifications in hiring IT workers [7] and in harmonization of mutual responsibility within corporations [8]. To examine the process of individual choice optimization, the study applies the method of indifference curves. This method was empirically tested both at the macro level [9] and at the level of individual choice [10].

VI. Results

There are several factors determining the model of a national pension system, such as historically established pension system, the quality of cultural capital of the nation [11, 12], the level of development of political institutions [13], the level of formation of democratic traditions. The current economic situation of the country has an impact on the pension model only by means of these factors.

The new Russia inherited the pension system that existed in the USSR. This system has the features listed below.

1. The basic parameters of a pension model, such as retirement conditions and the nominal value of pensions, completely depend on the decisions of the state.

2. The equalization principle predominates in the appointment of nominal pensions (the size of pension poorly correlates with the size of wages).

3. The lack of effective instruments that allow households to influence the size of nominal income received in old age.

4. The households are unable to influence the state when it determines the key parameters of a pension model (see feature 1).

5. Pensions are funded from the state budget.

The Russian authorities had perpetuated this model for a long period, as the chronic deficit of the state budget and galloping public debt prevented them from its replacement. After the balance of payments crisis of 1998, the budget was chronically reduced to surplus. This made the authorities feel free to reform the pension system. The main reformation vector veered to the "right" enabling the increase of people's independence in managing their pension provision. One of the objectives was to exempt the state budget from funding pensions. One of the first stages of the pension reform was "monetization of benefits" in 2004. It replaced the consumptive and inefficient system of benefits in kind.

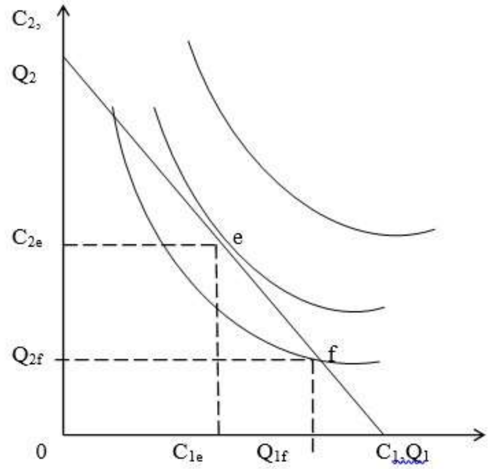

Fig. 1. Optimal choice of a household in the intertemporal model

Fig. 1 illustrates the general idea of the pension reform at the beginning of the twenty-first century. It shows a household choosing between the variants of current income distribution. Is it better to save or to borrow money? Income and consumption of the current period are indicated as C1 and Q1. Income and consumption of the future period are C2 and Q2. The major part of the output (income) of a household in the current period is Q1f. The value of income as above in the future period (in old age), is Q2f. If there is no adequate financial market, a household is forced to adjust its current consumption to the value of current income and is at point f. Based on its preferences, a household is aimed at reducing its current consumption to C1e. As for the rest of the income in the amount of [Q1f – C1e], it is to occur in a future period. This bolsters an increase of its future consumption by [C21e – Q2f] lifting it to the point e on the higher position of the indifference curve. This indicates that financial market instruments will allow a household to increase its wealth obtained not in the current, but in the lifelong period.

The pension reform conceived at the beginning of the twenty-first century created the institutions (pension funds) and financial instruments that allowed households to make such a choice. The differentiated choice of households in the current period ensured their unequal well-being in old age. This fact reveals a distinctive feature of any "market" reforms, as they are targeted at providing each individual with a wider range of options, that is, the right to use the alternatives of the market.

The situation changed when the Russian budget began to reap the benefits of extremely advantageous conditions in the world market of hydrocarbon resources. For the first time in decades, Russia's political leaders found themselves with untold financial surpluses. First, they were allocated to solve such problems as the repayment of public debt and the creation of financial reserves. The financial surplus was then used to increase pensions. It was a purely populist policy. The vector of reforms has swung in the opposite direction increasing the state dependence of pensioners and decreasing their ability to form their pensions independently. The government has abandoned the previously planned rate reduction of pension payments taken from businesses. By that time, the share of "pension" costs in the total cost structure of Russian businesses was higher than the world average, which limited investment [14]. Also, this policy change was dangerous because it increased the threat of unbalanced budget. The obligations of the state represented by the government are considered non-retroactive.

The threat of the budget deficit became obvious in 2014, when the world market saw the end of the era of the "three-digit" oil price. The Russian government immediately faced a dilemma. The first option was to keep a balanced budget but to sacrifice the welfare of pensioners (future and "current"). The second option was to generously finance pensioners in the current period, but then to get permanent budget deficit. After some time, there would be hyperinflation, which would adjust the real value of pensions to the financial capabilities of the budget. That is, pensioners would again lose in income, but it would happen later and at a large scale. It is clear that there is no any alternative to the options discussed above in the short period. The government banned other options when it chose a populist pension model.

It is evident that the Russian government has chosen the first option that is a balanced budget financed by the relief of obligations to pensioners. This hypothesis is supported by specific facts. Thus, at the beginning of 2016, the government refused to index pensions in accordance with the actual rate of inflation (13 %). Instead, it indexed the pension in accordance with the "planned" rate of inflation (4 %). Later, the government stopped indexing pensions to working pensioners. In fact, such decisions of the authorities are classified as a technical default. This commonly result in voluntary or forced resignation of the government. However, with the current specific features of the Russian cultural capital and its level of political institutions development, the Prime Minister did not take the responsibility for this situation and, therefore, did not resign, but continued leading the economy. In turn, the population did not consider that the Prime Minister was to blame, and, therefore, people gave him a powerful vote of confidence in the next elections after the announced pension reform. This observation may seem to distract the research from its focus. However, the political maturity of the population and the weakness of democratic institutions can explain many processes in the evolution of the Russian banking system.

When the measures taken at the beginning of 2016 were exhausted, the government returned to the initial dilemma. It could not be otherwise, because over the past years there was not a single decision to "unload" the budget from obligations to pensioners in a civilized manner. It should be noted that even after the adoption of the "default" decisions, the pension system of Russia remained very generous. Of course, it is not in absolute terms, but in relation to the real long-term opportunities of the national economy. Such real long-term opportunities made a clear picture of the national GDP without market fluctuations. The generosity of the Russian pension system was manifested in two aspects. First, the nominal size of pensions was too high. Secondly, the length of service required for retirement was too short. When the budget deficit is zero by default, one of these "generosity" aspects must be sacrificed. It means that the government faces a dilemma referred to as "age vs pension".

The "age vs pension" dilemma can present both the pensioners view (Fig. 2) and the government perspective (Fig. 3). Let us consider Fig. 2.

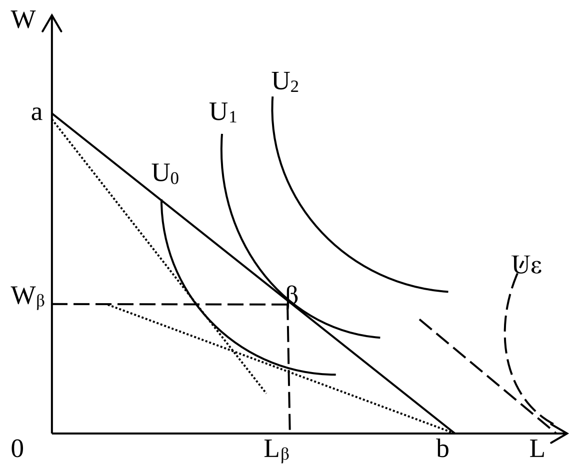

Fig. 2. Optimal parameters of retirement (age - nominal pension)

It shows the indifference map of a pensioner. "The retirement set" includes two benefits: some level of well-being in old age (W) and the number of years of leisure at the disposal of a potential pensioner.

The curve of indifference has a constant negative slope throughout the graph because a rational pensioner will give up a year of leisure only if he/she is provided with greater well-being in old age. The convexity of the curve indicates the action of the law of decreasing marginal utility for the two benefits (leisure and well-being). Which option would a household prefer? To find out, we have to put a budget constraint in the model. In our case, these are strict retirement rules set by the government. These rules can be considered as an analogue of the budget line in a well-known model of consumer choice. The government reports how many years of leisure should be sacrificed in order to increase by one unit the amount of well-being in old age that is the pension size. Vice versa, the budget line ab shows that in order to receive a higher pension in old age, it is necessary to give up some leisure time. Under the given conditions, an individual will select set β. This means that they will have at their disposal Lß years of pension, during which they will receive a sum of money equal to Wß. The level of his/her well-being is estimated as U1. Perhaps, an alternative solution is possible. Fig. 2 shows it as a dotted line. An individual ε has such a high degree of aversion to work that he/she is ready to be at leisure all the time refusing to retire. It is possible to assume that there will be people who will work until the end of life refusing to be at leisure.

Let us assume (Fig. 2) that the government changes the rules of retirement. For example, it reduces the size of future pensions. Then, the budget line will start to rotate around point b in a counterclockwise direction. This will continue until the budget line touches U0 curve. This reflects the reduction of individual well-being in old age. If the government starts to increase the retirement age, it will turn the budget line around point a, but in a clockwise direction. This means that the government leaves a household less leisure time. It is obvious that with certain parameters of the reform, the consequences of the government actions will be the same.

Let us consider the "age vs pension" dilemma from the government point of view (Fig. 3).

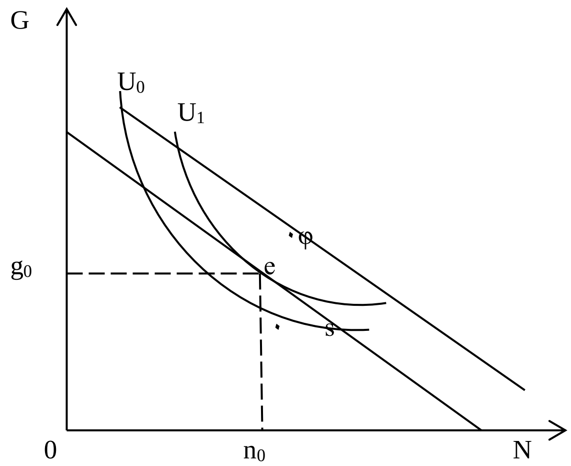

Fig. 3. The "age vs pension" dilemma in the view of the government

It is a common problem for the authorities to make socially relevant choices. The government should provide a reasonable size of pension to a certain number of pensioners (N). At the same time, it is to produce a number of additional public goods (G). Public preferences determine the government policy, and they are expressed in the process of public choice. At the same time, the government policy is limited by budget restrictions in the literal sense. The budget constraint is as following:

$$B = gk + np, \qquad (1)$$

where k and p are the prices of public goods and pension sizes, respectively. In the initial period, the government searches for the optimal point e, where society reaches the highest level of welfare (curve U_1). The government pays pensions to the number of individuals in n_0. It buys public goods in the amount of g_0.

The problem, however, is that the number of pensioners is constantly growing or the size of pensions is increasing. Accordingly, the second term in the budget constraint equation increases. Now the point φ becomes optimal from the public point of view. But it is impossible to achieve it at this level of the budget. If the government begins to redistribute the existing budget in favour of pensioners, it will move on the budget line to a lower curve of indifference U_0. As an alternative, the government will begin to manipulate the parameters n and p in the second term of the budget constraint.

In our case, the government has chosen "age", that is, reduced the value of n. This is a matter of taste, a coincidence. Similarly, the government could choose an alternative option and, keeping the retirement age unchanged, firmly freeze all types of pensions (p). In the same way, it is easy to answer the question of how the "age vs pension" dilemma will be solved, all other things being equal. By other equal conditions we mean the actual stagnation of the national economy. This stagnation has been going on for the fifth year, and there is no obvious reason (not a coincidence as a new jump in oil prices), for which it would be over. Under these assumptions, it is easy to predict that the government will soon have to slow down the growth of the nominal value of pensions. Then, it will extend the length of service, then again, it will reduce the real pension, and so on until the very end. This end will be hyperinflation, which will immediately bring the real pension to the level of economic opportunities of the country. Some scientists believe that the use of financial market instruments [15] or the improvement of the legal space of pensioners [16] will solve the problem. In fact, these actions can only delay the "final" solution to the dilemma, but cannot prevent it.

The main thing is another aspect: without the conditions for economic growth in Russia, the main dilemma of balanced budget vs "decent" pensions will remain. Will Russia's economic growth begin in the near future? What are the reasons for this growth? What reforms can start this economic growth? The answers to these questions are in the focus of the next work of the authors.

The original design of the pension reform vanished in the middle of the first decade of the XXI century. Soaring federal budget revenues due to favourable conditions in the global hydrocarbon market put the political leaders of the country in a dilemma: to continue reforms or "to take a break". The Russian authorities failed to cope with the temptation of populism. The government refused to balance the Pension Fund and increased the slope of the trajectory of pension growth at the expense of the state budget. This was too ambitious and even risky program, which became obvious after the events of autumn and winter in 2014. The price of oil on the world market in the second half of 2014 fell by half, and the real burden on the budget, created by obligations to the Pension Fund, became unbearable. The unpopular adjustment of the pension scheme was a matter of time. This time came in the summer of 2018 when the government announced the postponement of the retirement of Russians for 5 years.

VII. Conclusion

The two questions remain. The first question is whether this step can be called a "reform". Secondly, can this action be classified as a continuation of market reforms? It is assumed that when the reform is completed, it is possible to describe its result with the phrase: "the problem is solved." It is obvious that the disposition formed after the increase of the retirement age does not correspond to this condition. This action is an instantaneous, or as economists define it, "situational" adjustment. It helps to solve the problems that have arisen "here and now". But what will happen when the additional income generated by this simple manipulation is exhausted? This will happen quite soon, as the government does not create "reserve funds" that would help to smooth the fluctuations in the economic situation in the future period, but it immediately directs funding to increase the pensions size of the current pensioners.

Based on today's circumstances, the prediction is that the retirement age will increase in the future. The danger is that after some time, a step-by-step increase in age of working people will completely absorb the so-called "survival period". This hypothesis may seem an inappropriate joke, but the current pension policy does not offer any alternatives.

Thus, Russians expressed obvious disapproval of the decision to raise the retirement age coming into effect from the beginning of 2019. It seemed to many that, in a social science perspective, the authorities denounced the social contract implicitly concluded between them and the population of Russia at the beginning of the XXI century. The content of this implicit contract was that the population agreed to abandon market reforms in exchange for constant growth of welfare. It should be recalled, however, that the increase of the retirement age was preceded by other actions of the government that were contrary to the above-mentioned contract. At the beginning of 2016, the government resolutely renounced earlier commitments to annual indexation of pensions in strict accordance with the rate of inflation. Although inflation in 2015 was 13 %, pensions were indexed by only 4 %. It is easy to calculate that such a step led to a decrease in the real pension by 9 %. As soon as the state of the budget, ruined by the crisis and the subsequent recession, stabilized, the government compensated about half of these losses. Then, the rule of full indexation of pensions was restored. But not for everyone. Working pensioners did not fall into this category, and since 2016 the growth rate of their nominal pensions has been chronically lagging behind the rate of inflation. The government can come up with any, even the most sophisticated arguments to justify its actions, but this does not change the fact that it unilaterally renounces its obligations.

Is it possible, reviewing the government pension policy, to categorize this sequence of actions as a "reform"? It seems to us that these actions are more in line with the scenario known as "patching holes". They do not lessen this problem in the future, and, in any case, they do not eliminate it. Now it is time to answer the second question: should the recent efforts of the government to solve the pension problem be considered continuing the course of market reforms? The demarcation criterion will help us here. It is clear that the actions of the government discussed above do not meet this criterion. The list of "crimes against the market system" is so long that we will mention only the most dramatic ones. First, there are still no reliable financial institutions and instruments that allow individuals to regulate their well-being in the future. So far, they can only operate with short-term general-purpose financial assets. Secondly, the link between the contribution to the Pension Fund financed by the employer and the size of the individual's future pension has disappeared. Third, a fairly simple formula for the formation of an individual's pension, which uses the national currency (ruble) as a unit of measurement, is replaced by the use of pension points. The monetary value of this "point" does not depend on the will and activities of individuals, it is determined by the government on the basis of "budget parameters". Fourth, the government will not stop changing the "rules of the game" on the pension field. Will a rational individual invest for 25-30 years in advance if the rules of the game can change in 2-3 years? [3] All these facts show that pension provision in modern Russia is rapidly turning into a system where the state assumes all obligations to ensure the income of the population in old age, removing from this function both private sector and pensioners.

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