



ISSA • AISS • IVSS

International Social Security Association

**Fifteenth International Conference of
Social Security Actuaries and Statisticians**

Helsinki, Finland, 23-25 May 2007

**Optimizing pension financing under a
changing demography and a volatile
economy**

Russia's experience

Alexander Kurtin

First Deputy Chairman of the Board of Directors

Pension Fund of Russian Federation

Russian Federation

ISSA/ACT/CONF/15/3(e)

Optimizing pension financing under a changing demography and a volatile economy

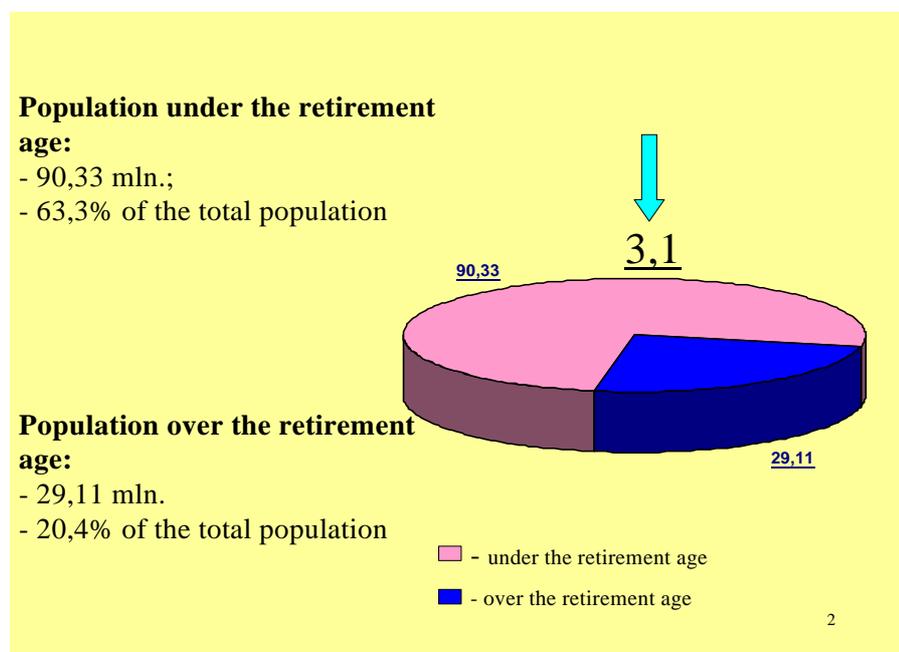
Russia's experience

Alexander Kurtin
First Deputy Chairman of the Board of Directors
Pension Fund of Russian Federation
Russian Federation

1. Introduction

The pension reform of 2002 was entirely based on **economic** considerations: the goal of the reform was to adapt the Pension Fund of the Russian Federation (PFR) to the market economy. The key goal of a pension reform is to encourage people to get actively involved into forming their future pensions and to **independently** anticipate the needs of their old age and to provide for them well in advance.

Figure 1. *Population under the retirement age and over the retirement age as of January 1, 2006**



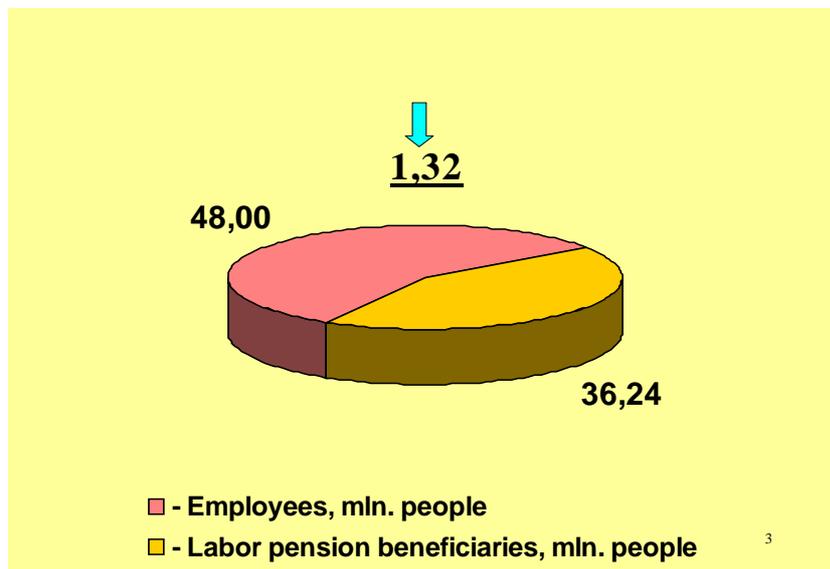
* The ratio population under the retirement age vs population over the retirement age is equal to 3,1.

These considerations make demographic factors a priority in pension system development. Should the demographic conditions be unfavorable, the Fund will never be able to guarantee a sufficient pension to the citizens, nor would it be able to achieve any financial stability: if Russia sustains its current demographic development policy, it will be accompanied by a consistent de-crease of the country's permanent population. Ultimately, by 2050 Russia's permanent population will drop by 22 millions and it will total 121,2 millions.

In accordance with the PFR actuarial estimates, as the permanent population of the Russian Federation decreases, the number of retired persons who are paid their labor pensions will increase from 36,2 millions in 2005 to almost 42,5 millions in 2050, that is, more than by 6,1 millions, or by 17%.

The increase of the number of labor pension beneficiaries will be accompanied by a decrease of the population who are able to work, and in the first place, of hired workforce, or employees.

Figure 2. *Employees vs labor pension beneficiaries in 2006**



* The ratio employees vs labour pension beneficiaries is equal to 1,32.

As a result, in accordance with the estimates, no later than in the mid-30-s the ratio of labor pension beneficiaries to employees will exceed 1.

Until 2002 the Pension Fund was essentially a tool used to redistribute the financial resources between various generations in order to address Russia's demographic development goals. However, given the conditions of the market pension reform and the current dependence of the Fund's financial sustainability on the demographic factor, one can confidently assert that the PFR is becoming the end user and the most significant consumer of the accomplishments of the public demographic policy.

2. The PFR Development: some financial issues

The current issues experienced by the pension system of the Russian Federation are well-known: low pension income; a low coefficient of pensions per earnings of an insured person and a lack of funds to pay labor pensions. However, the latter is less pressing an issue since the federal budget takes the subsidiary responsibility for pensions should the need arise.

These issues were caused by a number of well-established factors, including the Unified Social Tax rate that was ungrounded in actuarial terms, as well as the insufficient rate of the insurance contribution, and a low level of the labor compensation funds in the GDP. This resulted in low wages and caused a number of requirements to the insurance coverage history stipulated by the pension legislation. The above-stated reasons are affected by macroeconomic parameters, by the special features of the national compulsory pension insurance program and by the labor market situation.

Yet, however significant the macroeconomic labor factors may be, it is the demographic factor that exerts the major impact on the current financial situation of the Fund.

Should the current tax and pension legislation remain unchanged, the PFR development prospects will be as follows:

- For 2050, the financial result of the insured part of the pension system's PAYG component is estimated at approximately RUB 3,000 billion;
- In the PAYG system, in 2050 the coefficient rate of the average old age labor pension will make 4,2% against 29,6% in 2005;
- As a result of the current pension policy on the basic part of the labor pension, the ratio of the average labor pension size to the minimum subsistence level of the retired beneficiaries will make 1,5 times in 2050.

The solution to Russia's demographic challenges that we find **today** will enable us to resolve the pension challenge and to ensure financial sustainability of the PFR in the **future**.

All experts agree in their evaluation of the impact that demography has on the PAYG pension models. However, disagreement oftentimes emerges when evaluating cumulative models. In effect, the demographic situation exerts almost the same impact on the state of any pension model, be it a PAYG or a funded one. However, in the latter case this impact is not as visible.

In line with the current legislation, the PFR pension system will for a long time remain primarily PAYG system. Most issues, namely, those of financial sustainability and the insufficient pension size are primarily related to the PAYG part. This is why it is on these issues that we should in the first place focus.

The state of the pension system also affects the demographic situation. In specific cases it is oftentimes difficult to determine which of the factors is the reason, and which of them is a consequence. For example, it is obvious that the pension level has a direct bearing on life expectancy of the retired people, and ultimately on the population size, or on the demographic situation.

The demographic factor is not formed by itself: it is shaped under the impact of the overall economic situation in the country. In the light of the globalization processes, it is also affected by international events.

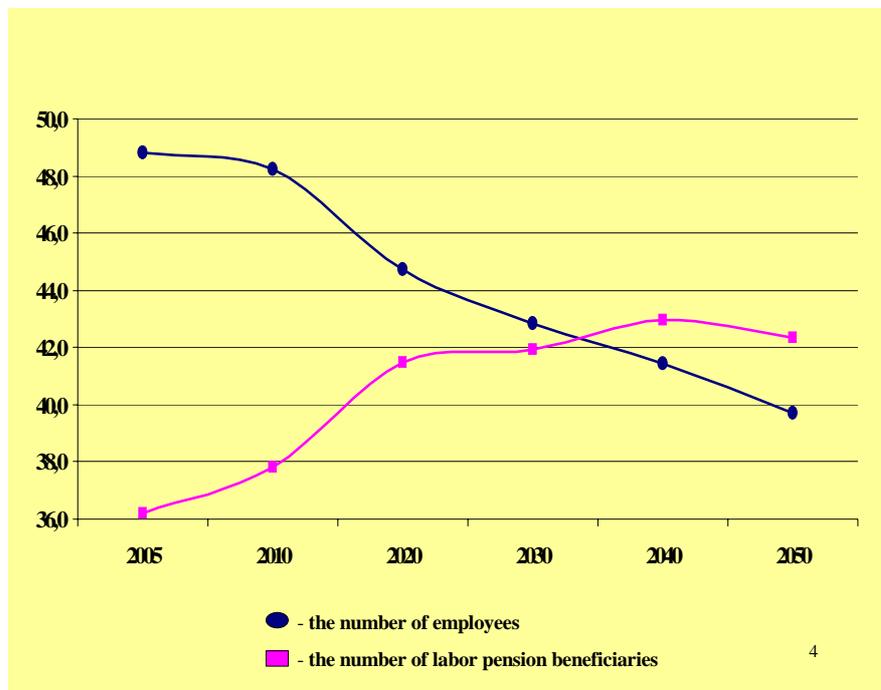
Currently, the ratio of persons over the retirement age to those under the retirement age is 100 to 310.

The ratio to the employable population under the retirement age is a little lower and makes approximately 288 persons to 100 persons over the retirement age. If this ratio were the same for employees and the retired people, the PFR would not experience any financial stability issues. Even in spite of the current Unified Social Tax rate and insurance contributions it would be able to provide sufficient pensions.

However, about 8 millions retired people get labor pensions before they reach the retirement age, while the number of employees is twice lower than the number of people under the retirement age.

As a result, today we have 132 employees per 100 retired people, and by 2020 their number will drop to 105. It is estimated that in the mid-30s the number of employees and that of the retired people will level out.

Figure 3. *The number of employees vs labor pension beneficiaries: a forecast*



No pension system based on PAYG principles will be able to sustain such a ratio.

The "employee-retired persons" ratio issue does not exhaust the list of the current pension system challenges.

The ongoing demographic changes and their long-term consequences for the pension system were not considered during the reform process. Currently, one can rightfully state that the current collapse of the retirement system is primarily due to the unresolved demographic issues.

Due to the unfavorable "employee-retired persons" ratio, in order to sustain financial stability the PFR should increase the retirement age in order to reduce the period when labor

pensions are payable, and to establish a statistically grounded duration of the period when labor pensions are payable, instead of a fixed one.

In accordance with actuarial statistics, for the current year the duration of the expected period when old age labor pensions are payable should be set as equal to 20,4 years (13,2 and 22,7 years for men and women respectively).

However, extremely low life expectancy, especially for men, makes it impossible to introduce this figure into a retirement formula. In 2002, this period was set as 12 years and this was a compelled measure. Currently it makes 14,5 years, in the future it will be extended to 19 years.

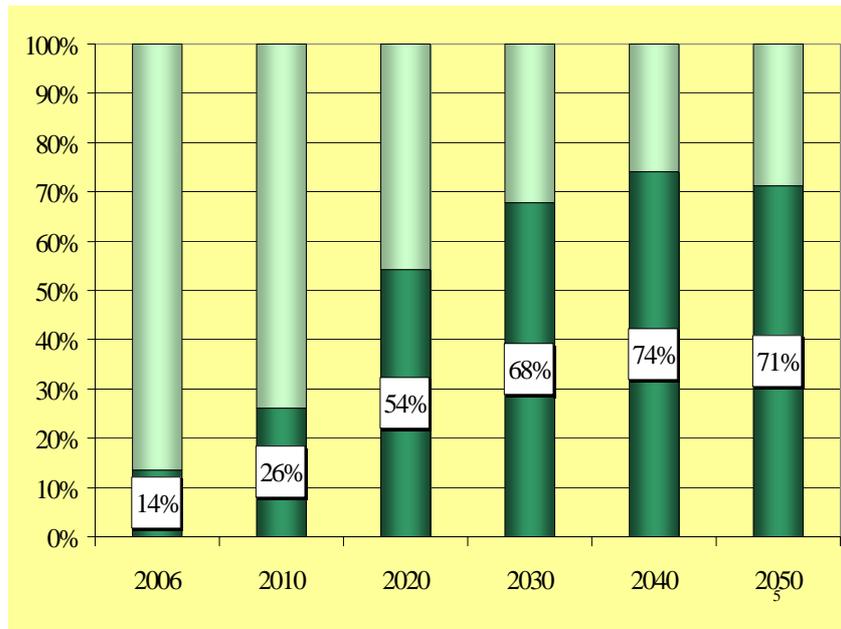
Besides, there would also emerge purely economic challenges: as a result of the new developments, the size of an old age labor pension would drop by 1,63 times in 2002 and by 1,43 times in 2006, should the real survival cases be confirmed.

Increasing the rate can be another way to optimize it, that is, to decrease the “employee-retired persons” ratio. However, in this case in 2006 in order to cover the insured part deficit, the need for an additional insurance contribution rate will make 1,6% in 2006, 3,1% in 2010 and by 2020 it will reach 5,3%.

The third way to optimize the financial challenges of the PFR, caused by the demographic changes, is to shift the responsibility for ensuring the financial sustainability to the federal budget.

The actuarial forecasts demonstrate that the deficit share of the overall expenditure volume that goes into paying the insurance part of the labor pension will make 26% in 2010 and it will exceed 70% by the 30s.

Figure 4. *The share of the deficit of the insured part of the pension system’s PAYG component in the total volume of the PFR insurance expenditure*



Considering all the payments made from the federal budget to the PFR budget (including public pension payments, monthly cash payments (ЕДВ, MCP), supplementary monthly cash payments (ДЕМО, SMCP), the expenditure that goes into the basic part of the labor pension and to cover the insurance part deficit), currently their share in the overall PFR expenditure volume makes approximately 55%, and it will reach 80% in mid-30s.

Under these conditions there is no way one can associate the pension system with insurance. This is why we should either rebuild the PFR system so as to base it on entirely non-insurance principles, that is on providing pension, or we should implement coordinated demographic and macroeconomic measures which will only pay in mid-term perspective.

One can quote a number of other examples of how demographic and macroeconomic factors impact the financial state of the PFR, however, the key conclusion is self-evident: any public measures to regulate the financial sustainability of the PFR should not only be aimed at increasing the birth rate, which will make it possible to improve the employment situation long-term, that is, no sooner than in 20 years time, but to also ensure sustainable positive dynamics in terms of all demographic parameters.

In its current situation, the PFR would significantly benefit from the following factors, apart from the increased birth rate:

- Population stabilization and growth;
- Decreasing the death rate, especially among people under retirement age: this will help to slow down the deterioration of the “working population to the retired persons” ratio in the nearest future;
- Boosting life expectancy, especially for men: this will make it possible to set a higher pension formula indicator for the expected duration of the period when pension is payable, and so on.