

Pension System in Russia

The Russian Pension in the 1990s

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Introduction

It is well known that pensioners have been hard hit by the market transition in Russia. This paper measures statistically how small the Russian pension was in the 1990s and to analyze its causes. Hopefully, this paper might provide a basis for international comparisons and reveal major defects in the Russian pension system existed before January 2002, when a serious pension reform started in Russia at last.

1. How Small Was the Russian Pension in the 1990s?

Table 1 shows some evidences for the smallness of the Russian pension:

(1) During the period 1995-1998 the average pension was higher than the subsistence minimum by less than only 20 percent. Since 1999 it has reduced to the level even below the subsistence minimum by 10-30 percent.

(2) In the period 1992-2001 a real increase in the average pension was recorded only in 1993, 1996 and 2000-2001. In all other years the average pension in real terms decreased as compared to the previous year. Especially, the decrease in 1999 has been the most significant since 1993. Even in nominal terms, the rate of increase in 1997-1999 was very low. Especially, in 1999 a nominal increase in pension was only 12.5 percent.

(3) If we convert the average pension into dollars by official exchange rates, it was only 40-60 dollars in 1995-1998, and decreased to mere 18 dollars in 1999. When converted by purchasing power parities (PPP), it was 125-140 dollars in 1995-1998.

2. The PAIG Equation

The basic pay-as-you-go (PAYG) equation could be written as follows (Branco, 1998, pp.5-6):

$$\alpha WN = \beta WM(1 - \tau)$$

N is the number of people employed.

M is the number of pensioners.

W is the average wage.

α is the average pension contribution rate.

β is the average replacement rate (ratio of the average pension to the average wage).

τ is the ratio of budgetary transfers to pension expenditure.

M/N is the system dependency ratio.

$$\beta = \frac{\alpha}{(M/N)(1 - \tau)}$$

As shown in Table 2, in Russia the system dependency ratio (60 percent) has been remarkably high by international standards (Branco, 1998, p. 10). In the period 1993-1998, because of this high system dependency ratio, given the low average pension contribution rate (17-19 percent), the average replacement rate was around 35-40 percent. Since the average wage itself has been very low in Russia, this level of the average replacement rate means that the average pension has been miserably low. In 1999 the average replacement rate decreased to less than 30 percent.

The average pension contribution rate (16-19 percent) has been considerably lower than the statutory contribution rate that has been high as 28 percent. If we calculate the contribution rate against labor income, using the data of the System of National Accounts (SNA) statistics, compiled by the State Committee on Statistics (Goskomstat), it has been lower than 14 percent (Table 3). This low figure seems to be explained by two reasons. First, not all employers pay contributions to the Pension Fund. As shown in Table 3, the actual rate of personal income tax has been low as well, in contrast to the statutory minimum rate of personal income tax that had been equal to 12 percent until 2000.¹ This aptly expresses the situation in Russia, where tax authorities could not capture the actual labor income at all. Second, the Goskomstat data of wages have been based not on wage funds of enterprises actually paid, but on those due (*nachislennaia*). There has been a sizable gap between these two concepts of wages because of heavy arrears.

3. Pension System in the 1990s: Calculation of Old-Age Pension

¹ It was raised to 13 percent in the beginning of 2001.

In this section, we examine the method of pension calculation, in order to understand why the pension was so small in Russia. The old method of calculation began to be fully applied on May 1, 1992, and the new method was introduced from February 1, 1998.

(1) Old method approved by federal law No. 340 of November 20, 1990

$$p = wCy$$

p is the amount of pension one receives.

w is one's average wage during 24 months prior to retirement or one's average wage during 60 consecutive months at any time before retirement.

C is a coefficient reflecting the increase in living costs and nominal wages in the period 1971-1991, approved by federal law No. 2654 of April 3, 1992. For example, if one's salary included in the pension calculation was paid prior to 1971, C is 11.2, if it was in 1972, C is 10.9, ..., if it was in 1990, C is 5.5 and if it was in 1991, C is 2.9.

y is a coefficient reflecting length of service. If one's length of service was 25 years for men and 20 years for women, y is equal to 0.55. If one worked one year longer, y is to be increased by 0.01. The upper limit of y is 0.75.

This scheme itself did not incorporate any mechanism of indexation. The above-mentioned law of April 3, 1992 prescribed that all pensions were raised in proportion to the increase in living costs. However, since compensation was added to pension in November 1993, not the amount of pension itself, but of compensation has been increased, when living costs increased sharply. Federal law No. 2 of May 5, 1994 approved this method, i.e., it stated that pensions would be increased or compensated in relation to the increase in living costs.

As a result of this change, not only the increase in the average pension was repressed, but also compensation amounted to almost half of the average pension in mid-1996 (Table 4). This undermined the relationship between amounts of one's salary earned in the past and of one's pension received in the future.

(2) New method introduced by federal law No. 113 of July 21, 1997

$$p = iW_t$$

i is an individual coefficient.

W_t is the average wage in the preceding quarter of the year.

$$i = yr$$

y is a coefficient reflecting length of service, the same as in the "old method."

r is a wage ratio.

$$r = w/W$$

w is one's average wage, the same as in the "old method."

W is the average wage in the same period as w was calculated.

$$p = iW_t = yrW_t = y(w/W)W_t = w(W_t/W)y$$

The difference from the old method lies in the term W_t/W . That is, new method incorporated wage indexation, instead of the coefficient C . However, two remarks should be made. First, the upper limit of r was set at 0.7. Because the upper limit of y is 0.75, the maximum amount of pension is $0.75 \cdot 0.7 W_t = 0.525 W_t$, i.e., about half of the average wage in the country in the preceding quarter of the year. This further weakened the relationship between amounts of one's salary and of one's pension. Later, on May 1, 2000, this limit was raised to 0.8, and to 0.95 on August 1, 2000, and finally to 1.2 on May 1, 2001. Second, an extraordinarily unique method was adopted for the calculation of the average wage (W_t), which has been far below the average wage calculated and reported by the Goskomstat.²

$$W_t = S/N$$

S is the calculated sum of wages.

N is the number of people employed.

$$S = F/K$$

F denotes revenues of the Pension Fund, excluding those earmarked for the increase in minimum pension and compensation, and for the payment of arrears in pensions.

K is the statutory contribution rate.

As seen from Table 5, the average wage thus calculated (W_t) amounted to approximately 60 percent of the Goskomstat's average wage. In 2001 this ratio reduced to 53 percent (the average from January through September).

The difference between the two series of the average wage was explained by two factors.³ First, some revenues of the Pension Fund were excluded when calculating the average wage. Excluded were the revenues that would be expended for the increase in minimum pension and compensation, and for paying off arrears in pensions, i.e., those

² See decrees of the Ministry of Labor and Social Development No. 27 of April 4, 2000 and No. 39 of May 17, 2001.

³ See an interview with Mikhail Zurabov, President of the Pension Fund, published in *Rossiiskaia gazeta*, April 17, 2001, p. 3.

revenues that could not be used for the indexation of pensions. Second, the above-explained calculation method of the average wage took into account only the wages from which contributions to the Pension Fund were actually made. These wages were smaller than those reported in the Goskomstat publications due to the two reasons explained in the preceding section.

Since 1997, pensioners have been given the right to choose either the old or new method of pension calculation.⁴ The old method was modified as well: the increase in pensions was to be done in accordance with increase in average wages, not in living costs as before. This means that in 1998 the pension indexation switched from the indexation to price increase to the indexation to wage increase, regardless of which method of pension calculation a pensioner might choose. Clearly, under the conditions of repressed growth in household incomes the government needs much less financial resources for the indexation to wage increase than it does for the indexation to price increase. This was the case in Russia in 1998-1999 right after the financial crisis.

Concluding Remarks

The reason why the Russian pension was so small in the 1990s might be summarized as follows:

(1) The system dependency ratio (60 percent) has been remarkably high by international standards.

(2) The actual contribution rate has been only 16-19 percent, despite the high statutory contribution rate (28 percent), due to the loose control over contribution payments from government authorities.

(3) Although under “old method” in 1992-1997, indexation to living costs was to be done, quite often, pension itself was not indexed and only some compensation was paid.

(4) Under “new method” in 1998-2001, pension was indexed to wage increase, implying that increase in pensions was more repressed. This was one of the reasons why in 1999 the average pension decreased considerably in real terms.

(5) Although “new method” incorporated wage indexation, this indexation was constrained, because of the unique definition of the average wage used in the pension calculation.⁵

⁴ Working pensioners were not allowed to choose the new method.

⁵ In the new scheme introduced from January 1, 2002, indexation to price increase was

Appendix Table 1: The State Budget and Pension Fund of Russia

The revenue and expenditure of the Pension Fund in percent to GDP amounted to 6-7 percent in 1993-1999. In 2000 the expenditure dropped to 4.8 percent of GDP. In that year, while the actual revenue surpassed the planned one by 78.4 bn rubles due to an economic boom, the expenditure was not increased, resulting in 98.3 bn rubles of surplus.⁶

Appendix Table 2: Revenue and Expenditure of the Pension Fund of Russia

The share of contribution in the revenue of the Pension Fund amounted to approximately 90 percent on average in 1992-2000.

Appendix Table 3: Number of Pensioners and Average Pension by Category in Russia

Old-age pensioners accounted for 75-80 percent of all pensioners in 1990-2000, although their share has been gradually declining.

adopted again.

$$p = yrW_t$$

p is the base amount of pension in the basic and insurance parts of pension.

y is a coefficient reflecting length of service, the same as before.

r is a wage ratio. Its upper limit was set at 1.2.

$$r = w/W$$

w is one's average wage in 2000-2001 or one's average wage during 60 consecutive months at any time before retirement.

W is the average wage in the same period as w was calculated.

W_t is the average wage in the third quarter of 2001.

$$p = y(w/W)W_t$$

As seen from this equation, pensioners are guaranteed the amount of pension that would have been calculated by the previous "new method." From now on, the basic amount of pension is to be indexed to inflation rate. The first indexation (6.5 percent) was made on February 1, 2002.

⁶ The revenue of the Pension Fund in January-September of 2001 amounted to 474.0 bn rubles (7.2 percent of GDP) and its expenditure reached 356.8 bn rubles (5.5 percent of GDP). They increased compared to the corresponding period of the previous year by 54.9 percent and by 49.0 percent, respectively (*SEP*, 2001, No. 11, p. 160).

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