The Future of the Pension System: Parametric Changes or Change of Paradigm?

by

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ABSTRACT

The principal objective of this paper is to discuss shortcomings of the current paradigm of provision of the retirement income. The main conclusion is that in post-industrial society the traditional pension system, a mandatory and comprehensive earnings related scheme, should be replaced by a combination of voluntary private pension schemes funded by individual savings and investments in human capital and by state insurance against poverty. Specific recommendations are made for a socially acceptable transition of the pension system.

Keywords: pension system, post-industrial society, parametric reforms, retirement age.

JEL: H55, J18, I30.

Key issues

Current discussions

In Russia, expenditures on the pension provision of a relatively young population amount to about 8% of GDP[1] compared with 7.1% of GDP in OECD countries.[2] Only half of pension payments is covered by pension contributions, the remainder is funded out of the Federal budget.[3] This means that the national pension system heavily depends on ability of the Federal budget to support it. Any substantive reduction in the price of oil would pose a serious threat to the viability of current pensions.

The scope for increasing the rates of contribution to the mandatory pension system has almost been exhausted. Rates, even after their reduction in 2012, are fairly high – 22% compared with 16.8% on average for the OECD. This impacts negatively upon economic growth by limiting the development of the non-raw material sectors of the economy that suffer most from the burden of contributions, inhibits diversification of the economy, and prevents moving wages out of the "shadow" economy.[4]

The combination of the high deficit in the pension system and the high level of contributions is due to the high ratio between the number of recipients of pensions and the number of workers who pay contributions. Given the short vesting period to obtain pension entitlement, the considerable size of the unregistered labour force, the low statutory retirement age, and the early retirement of almost 30% of those who become pensioners, this ratio is approximately 1: 1.3, whereas for a healthy and balanced distributive pension system the ratio should be 1:2.

The level of pension benefit in Russia is often incorrectly compared with international norms. For example, the International Labour Organization (ILO) recommends a minimum replacement rate (ratio of pensions to wages) of 40%. However, it is incorrect to compare average pensions with average

[1] According to data of the RF Pension Fund expenditures on pension payments were 8.2% of GDP in 2010 and 7.5% in 2011. See Report of the Pension Fund for 2010 and 2011 (*Otchet Pensionnogo Fonda za 2010 i 2011 gg.).*

[2] See estimate of expenditures on pension provision for 2010 in OECD countries: stats.oecd.org/ Index.aspx?datasetcode=SOCX_REF#.

[3] See Report of the Pension Fund for 2010 and 2011 (*Otchet Pensionnogo Fonda za 2010 i 2011 gg.)*

[4] For additional detail see Nazarov-Sinelnikov, 2009.

wages.

Firstly, the ILO Convention speaks of a replacement ratio of 40% for a typical pensioner living with a dependent spouse.[5] Secondly, no account is taken of the fact that in Russia, in contrast with the majority of the OECD countries, income tax is deducted from wages but not from pensions. (Zee, 2005, p. 24). Thirdly, the pension must be compared not with the average wage for the country but with the earnings of a specific worker. Alternatively, the median individual pension income of pensioners in the age group of 65-74 must be compared with the median individual earnings from work of individuals in the age group of 50-59 (the ratio of the median pension to the median wage is, as a rule, above middling values, given that the differentiation of pensions is, more often than not, lower than that of wages).[6] Fourthly, a significant proportion of the incomes of pensioners in Russia does not derive from pension payments. Pensioners often continue working and receive income from the state that is separate from pension, for example the monthly cash payment. For demographic reasons, the statistical ratio of the average pension and the average wage in Russia in the medium term will rapidly deteriorate, and for this reason there is a strong pressure for more rapid increases in pensions than is envisaged in current legislation.

For all of these reasons, the introduction of pension reform should not be delayed. By the beginning of the 2020s, pensioners will make up 40% of citizens who have the right to vote. Given the high percentage turnout of pensioners during elections, this group along with those of pre-pension age will constitute a majority of the effective vote and the introduction of necessary but unpopular measures in this area will become politically very difficult.

What is not discussed: crisis of the existing paradigm of pension provision

1. Wrong assumptions

The main problems of the pension system – the low level of pensions, their levelling[???] effect, the high level of pension contributions and the dependence of pension payments on the cycles of the oil prices are recognized by the general public, by most members of the ruling élite, and by

[5] C102 Social Security (Minimum Standards) Convention, 1952, Article 1 and Schedule to part XI: www.ilo.org/ilolex/english/convdisp1.htm.

[6] The minimal replacement ratio of 40% laid down in the ILO Convention No. 102, is calculated as the ratio of the total of all social, including family, benefits to the total wages of a normal male adult worker. See C102 Social Security (Minimum Standards) Convention, 1952, Articles 65—66).

the expert community.[7] What is not recognized is the fact that the existing paradigm of pension provisions has run its course.

The current paradigm rests upon two assumptions that are not self-evident: the majority of people are unable to plan far in the future; and that the future is predictable. Given that the behaviour of the majority of people is "myopic" they are inclined to underestimate the risk of a future loss of their means of subsistence.[8] But since the future is predictable, it is possible to define the optimal ratio of the number of years spent in work and number of years in pension, the optimal norm of savings for old age and the optimal choices for the investment of pension savings. Since the majority of the population is incapable of making the correct decisions about future by themselves, the state (civil servants with assistance from the expert community), must take these decisions for them.

All of the following elements of the current pension system are based on these two assumptions:

- pensionable age – the state decides at what age the citizens are no longer capable of work;
- life expectancy – the state can predict how many years, on average, citizens will live after they have reached pensionable age;
- the rate of pension contributions - in conjunction with the life expectancy after retirement this defines the ratio of pensions to wages – the civil servants are presumed to know what the optimal replacement rate should be;
- the design of the contributory pension system – it is assumed that everyone should set aside the same proportion of their earnings and invest it according to a single set of rules in specific financial instruments.

In fact, these assumptions are wrong.

The majority of people are, in fact, capable of looking after themselves: Homo sapiens is one of the few species on Earth that throughout its existence has been able radically to increase in numbers and extend its habitat

[7] See Final Report, 2012. Ch. 6, pp. 172-176.

[8] See, for example: Samwick, 1998, p. 5; Lusardi, 1999, 2003.

(Vishnevsky, 2005, Ch. 2.) The average life expectancy of humans has tripled (*op.cit.*, Ch.4) and in the last 200 years the world economy has enjoyed major growth (Acemoglu, 2009. p. 861). Of course, some human beings do not adapt adequately to the environment in which they find themselves (whether the natural or the social environment) but this does not mean that the freedom of all people to manage their own lives and property should be restricted. Moreover, it can be argued that the state, in its efforts to compensate for the "limitations of the majority" by means of an obligatory pension system, often adds to these limitations.

1. The incentive to work is weakened. A high level of contributions (as a rule for the poorest strata of the population and representatives of the middle class) leads to a bias in choice between work and leisure (inactivity) in favour of the latter. Whereas in 1960 in the age group 60-64 in Belgium, the Netherlands and France over 70% were in work, in the 1990s the proportion was only 20%. There were similar trends in the USA and in the majority of developed countries (Latulippe, 1996).

2. The population is disincentivized to accumulate savings for old age. In the last 30 years in developed countries the share of savings in the disposable income of households markedly decreased. For example, in the USA on average this share was 9.5% over the period 1974-1979 whereas for the period 1994-2000 it was only 4.1%. In Japan, this indicator fell significantly from 21.6% to 11.6% and in Germany from 13.3% to 10.6%.[9] It is unlikely that these changes can be attributed solely to the impact of the pension system on citizens' behaviour; but even so, in the opinion of a number of economists, the state pension system has significantly contributed to the reduction of private savings. (Feldstein, 1994. p. 18—19; 1977. p. 38).

3. The birth rate falls. The negative impact of the pension system on the birth rate can be explained as an "income effect" and as a "substitution effect". The "income effect" is evidenced when high social contributions impact negatively on the income level of potential parents and reduce their prospects for having more children. The "substitution effect" reflects itself in the fact that whereas before the introduction of state pension systems a large number of children served as an insurance against poverty in old age, with the appearance of state pensions the children became less useful for this purpose.

Of course, these linkages have not been incontrovertibly established. Demographic change did not result from the introduction of a distributive pension system. Even so, the severity in the decline of the birth rate may

[9] OECD data from *Economic Outlook* for the years in question.

have been affected by, amongst other factors, the degree of "generosity" of the distributive pension system. In contemporary society a small number of children is also associated with the desire of parents to provide their children with a good education. This means that a "generous" distributive pensions system which "pick the pockets" of parents for contributions, makes either for a reduction in the number of children or affects the ability of parents to provide them with the best possible education.

1. Given an aging population and a redistributive pension system, those who propose an increase in pension payouts at the expense of an increase in taxation or borrowing will inevitably prevail in elections.

2. The chances for an individual fully to realize his or her potential are reduced. The pensionable age, as it were, draws a line under the productive life span. Research on developed countries has shown that the best indicators for healthy life expectancy and the best "happiness indicators" are found within groups of the population who embark upon retirement relatively late and who take up part-time employment. Pension systems with fixed pensionable ages send out the wrong signals: preoccupation with one's health (for the purposes of extending the period of employment) is reduced; as is interest in continuing education (why study if one will soon have a pension?). [10]

3. Monolithic systems are rarely effective. A redistributive system offers everyone a single solution to providing for old age: a pension as a return for contributions. But such a system might not suit the majority. For example, for an individual who urgently requires expensive medical treatment, savings and the preservation of pension capital will be much less useful than the opportunity immediately to use these accumulated resources to save his or her life and health.

The future is, in fact, unpredictable. By creating a universal pension system the state unifies all risks. The sustainability of a redistributive pension system depends on the level of formal employment, on "transparent" wages and on demographics. Even s slight percentage deviation of these indicators from predicted levels can result in a significant imbalance in the pension system. We should recognize that these indicators simply cannot be predicted. In Figure 1 we illustrate this by comparing the predicted and actual dynamic in the total number of pensioners.

From the data presented in Figure No. 1, it is evident that even such an

[10] A number of studies have shown that the older a worker is, the closer the optimal age for his/her taking up of a pension will be to the pensionable age that is established in legislation (see, for example, Lacomba, Lagos, 2005).

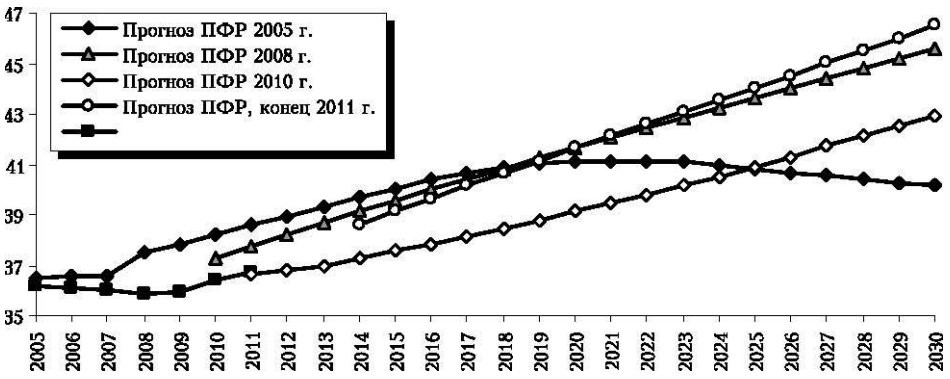
"inert" indicator as the total number of pensioners, cannot be accurately predicted even by such a well-informed agency as the Pension Fund of Russia.

- In 2010 the number of pensions was 2 million (that is, 6%) fewer than had been predicted five years previously (in 2005);

- The number of pensioners that the Pension Fund predicted for the year 2030 in 2011, exceeds by 6 million (that is, 16%) the figure predicted for 2030 in 2005;

- The figure for the number of pensioners in 2030 was revised by 8% in the course of one year (this is the difference between the forecasts made in 2010 and 2011).

Figure 1
Forecast of the numbers of recipients of labour pensions 2005-2030



PFR Forecast of 2005
PFR Forecast of 2008
PFR Forecast of 2010
PFR Forecast of end 2011

Source: Pension Fund of Russia (PFR)

Things are not much better when it comes to forecasting life expectancy.[11] During the last 50 years, most leading western demographers have underestimated the rate of growth of life expectancy. At the present moment, the majority of forecasts for Russia assume that the proportion of employed in large and medium-sized enterprises where standard and formal employment prevails, will remain unchanged. However, this proportion has in fact fallen from 61.5% in 2002 to 51.6% in 2009 and the proportion of

[11] For example, in the mid twentieth century it was forecast that the limit of future life expectancy would be age 75. Subsequent growth in life expectancy invalidated this forecast. (See Oeppen, Vaupel, 2002).

employed in the informal sector for the same period has risen from 13% to 18% of the total number employed.[12] There is also a significant lack of precision in thinking about the contributory pension system. In general, the view prevails that there will be net revenues from investments in the stock market over a period of 30-40 years (Dimson et al., 2002. p. 9). However, the fact of revenues in the past is no guarantee of revenues in the future.

The majority of people are capable of managing their plans for the future much better than the wisest person can manage the existence of the entire population of the planet. Only the individual can decide whether to spend more money immediately on health-care, education or on a mortgage, postponing pension contributions for the time being. In doing so, he or she might succeed in extending the duration of a healthy life span, improve their competitive advantage in the labour market or acquire assets that might generate additional income in the future.

2. Change of historical context

In the past, the construction of a pension system upon principles that now seem mistaken did not give rise to significant socio-economic problems. When, in 1889, Otto von Bismarck, seeking to forestall the rise of socialism, introduced a state pension in Germany from the age of 70, average life expectancy was 45 years (Gutnik, Zimakov, 2001). When, in 1908, Lloyd George introduced pension provision, also at the age of 70, life expectancy in Great Britain was 50 years (Prentice, 2008). These pension systems were not a great charge upon the budget, affected only a minority of the population and did not lead to the negative consequences that have been described (or the negative impact was insignificant).

After the Second World War, circumstances changed. The governments of the developed countries were willing and able to accept social responsibilities. This attitude was influenced by competition with countries in the socialist bloc for improvements in standards of living and, in conditions of universal suffrage, socialist-populist policies were increasingly influential. Implementation of these policies was made possible by the abnormally high growth rates of the developed countries and it came to be assumed that the only task of government was the "management of an increase in national welfare". Consequently, the pensionable age was reduced: on the average in developed countries in 1950 to age 66 and in 1990 to age 62; pensions were increased (Zakharov, Rakhmanova, 1997, p/92). However, the developed

[12] *Economic activity of the population of Russia – 2010* (Rosstat). For the number of employed in the informal sector of the economy as a proportion of all employed in the economy, by age groups, see:
www.gks.ru/bgd/regl/b10_61/IssWWW.exe/Stg/02-33.htm

countries (including Russia) then embarked upon a third phase of demographic development, characteristic of which was and ageing of the population brought about by low birth rates and low death rates. In order to support the replacement ratio, taxation of the wages fund had to be increased to 30-40%. Despite this measure, the pension fund began to fall into deficit, with menacing rapidity. For developed countries the dimensions of this deficit, in circumstances in which any future increase in pension contributions was manifestly impossible, oscillated between 6% and 10% of GDP (World Bank, 2009).

In post-industrial society, as the scope for funding pension insurance is reduced, insurance, there is also a diminution of demand. The reasons for this are as follows:

a) the need for heavy manual labour is drastically reduced whereas opportunities for intellectual work, as a rule, last much longer;

b) medical technologies prolong working life (Mesle, Vallin, 2006);;

c) systems of education become more flexible, allowing older people to adapt to the demands of the labour market;

d) the general spread of welfare, increased investments in human capital and growing opportunities for financial institutions to offer individual pension plans and insurance against the risk of incapacity increase the attractiveness of private savings and investments, given that these, by contrast with state pension systems, can take individual risks and preferences into account.

e) it cannot be taken for granted that in post-industrial society the majority of citizens are "short sighted" (plan ahead only in the short term). Educational and health services will take up an ever greater share of consumption,[13] which is equivalent to investment in the prolongation of working life and a displacement of the role of pensions. In other words, in post-industrial society the conflict between current consumption and the need to accumulate pension savings will be significantly attenuated. Even very "short-sighted" people, making intelligent use of educational and medical services, will become less dependent upon state benefits;

[13] At present, these trends are only beginning to assert themselves. However during the 1990s and 2000s in the majority of countries of the EU there was an increase in expenditure of households on education (in relative terms). This is also true as regards relative expenditure on private medical insurance, although in this respect trends throughout the EU are less uniform. See report of the World Health Organization www.euro.who.int/data/assets/pdf_file/0011/I38179/E94886_chl0.pdf and the report of Eurostat: ec.europa.eu /education/pdf/doc274_en.pdf

f) in families, as a rule, both partners will work and this will contribute to the stability of the family budget in the event of the temporary or permanent incapacity for work of one of the partners. For conformation of this state of affairs, see Table 1, in which the rates of employment of women in the 1970s and at the end of the twentieth century are compared.

The trend in the employment of women compared with that for the employment of men leads to two conclusions. Firstly, in all of the countries considered, the employment of women sharply increased. Secondly, over time here is a convergence of the rates of increase in the employment of women: at the beginning of the 1970s this trend was discernable mainly in the Scandinavian countries, but at the end of the last century it spread to the less developed, patriarchal, countries of southern Europe. This means that if, in 1952 the typical recipient of a pension was obliged to provide for both himself and his wife, who as a rule, had neither a working pension of her own nor any savings, on 40% of his former earnings, then at the end of the last century in many countries of Europe women already had their own pension savings.

Table 1

Employment of women compared with that of men in a number of European countries 1970-2000

Country	1970	1980	1985	1990	1995	2000
Switzerland	66.6	83.8	91.0	94.9	96.4	94.9
Finland	-	84.6	90.8	91.5	91.0	90.7
Denmark	-	-	82.7	86.5	84.6	88.8
Great Britain	54.8	66.1	71.9	76.7	82.1	83.1
France	54.2	63.1	69.4	72.6	77.0	80.5
Germany	51.9	61.5	62.8	67.7	74.9	79.0
Portugal	-	55.9	62.8	68.3	75.7	78.8
Austria	57.5	59.0	62.9	68.7	75.4	77.1
Netherlands	-	43.9	52.0	62.7	70.7	76.6
Belgium	-	54.0	59.7	66.9	71.9	74.4
Republic of Ireland	36.9	41.7	46.5	54.1	61.0	69.3
Spain	30.0	37.0	38.9	44.4	50.9	57.7
Italy	36.2	43.7	46.2	51.5	52.6	57.6
Greece	-	40.6	50.3	53.8	56.0	53.8

Source: Maclnnes, 2003.

3. Mistaken assumptions led to incorrect conclusions

The prevalence of the assumptions described above (the citizen is incapable of looking after him/herself; the future is predictable) determines the choice of remedies for the problems of pension provision. The most important of these is to increase the pensionable age. This measure does, of course bring some relief: it avoids a reduction in the replacement ratio (the ratio of pension to earnings) and controls the galloping increase in expenditure on pensions. However, the idea of increasing the pensionable age is based on a simplified world view, at a time when the life strategies of people are becoming more and more varied.

Increasing the pensionable age can be an effective remedy, provided that not only general life expectancy increases but also (at least at the same speed) the age at which health and working capacity decline. The evidence in favour of this thesis is presented in an article by Alrxey Kudrin and Evsey Gurvich (Kudrin, Gurvich, 2012). However, these authors employed average values for these indicators across a number of countries. But it is not the average values that are important but the variation in these values according to gender, age, education and other socio-demographic categories.

For example, let has consider some data for Denmark (see Bronnum-Hansen, Baadsgaard, 2008). Over a period of ten years the life expectancy of people with higher education increased by 2.5 years and of those without higher education by only 1.7 years. The difference in the increase in life expectancy of the two groups was therefore 0.8 years. Over the same period this difference increased to 1.65 years (in the case of poorly educated males there was even a decline in the indicator). It is therefore not clear to what extent the pensionable age should be increased to take account of an increase in life expectancy. Which trend should be adopted as the guideline: that for the educated, the less well educated or an average of the two?

In this example only two social groups were compared, but in contemporary society there are many more. Nor can one ignore the significant variation in healthy life expectancy that exists throughout the Russian Federation. In all probability this variation will increase. This means that increasing the pensionable age would have little impact on some (for some it might even be advantageous) but would be completely unmanageable for others. Varying the rules of entitlement to pension might slightly attenuate this problem but then one could no longer automatically link any increase in the pensionable age to increases in life expectancy.

This approach is typical of those who wish to “drive humanity towards happiness”. Some experts have even proposed extending the pension system in order to take into account the interests of the middle class by increasing

the threshold at which the pension begins to be taxed and introducing supplementary, quasi-voluntary contributions into the contributory pension scheme. Imposing supplementary taxation and reducing opportunities for independent savings is an odd way of attending to the interests of the middle class.

There are four shortcomings in the usual set of parametric reforms proposed by the expert community:[14]

1) these proposals are designed to "repair" the existing system, at a time when changing historical circumstances require a reappraisal of the foundations of that system and of the world view upon which it rests;

2) the majority of proposals[15] will yield optimal results only in 10-20 years time, whereas the pension system is already vulnerable: fluctuations in the oil price threaten its financial sustainability in the medium term;

3) given the lack of political will, it is unlikely that the key element of the policy of parametrical reform will be implemented, namely a raising of the pensionable age;

4) those experts who are blinkered by the traditional model of pension provision, are unable to see the possibilities for radically reducing pension contributions. That is, they rule out any possibility of a fiscal-budgetary arrangement whereby, in order to enhance the competitiveness and diversification of the Russian economy the tax burden on labour would be reduced and the fall in revenues (and increased deficit of the pension fund) would be made good from other sources.

For this reason, there is a need for new approaches to the task in hand and for a new set of measures that will relieve society and the political class of their anxiety over the fate of the state pension system and enable changes to be agreed while we are still at the beginning of the present political cycle.

[14] See *Final Report*, 2012. Ch. 6. pp., 172-176.

[15] Increase in the pensionable age, stricter rules for the qualifying period, "soft" treatment of those who retire early, aided by the introduction of a low level of contributions for those in "hazardous" forms of employment, increase in the effectiveness of the contributory component of pension provision. (*op.cit.*)

II. A way out of the crisis: small steps along a long road

A new paradigm for pension provision

The simultaneous decline in the financial viability of the distributive pension system and the reduced demand for such a system in post-industrial society suggest the need for a new pension system with the following features:

- this would be a voluntary, private pension system, based on the savings of citizens and investments in human capital;

- there would be insurance against poverty in the event of loss of capacity to work.

The latter provision represents the transformation of the pension into a social benefit. There would be no point in attaching payment of the pension to any particular pensionable age, since an individual can find himself or herself in a critical life-situation (a combination of incapacity for work, lack of income-yielding assets, absence of children with independent means, lack of means to pay for the obligatory component of a pension contribution) even before the age of 60 and, by contrast, one might enjoy a problem-free life even after the age of 80. The value of the benefit should be based on the living wage for a pensioner (excluding a component for medical care, which would be financed separately). The benefit should be funded out of general taxation and not out of separate pension contributions (so as to reduce administrative overheads).

The conversion of the traditional pension into a "benefit for people in a difficult life-situation" has the following advantages: the incentive to work is reinforced; the birth-rate and investments in human capital are stimulated; an aspiration to prolong one's working life and attend to one's health is introduced into the consciousness of the general public. The long-term viability of such a benefit system is catered for (it would not be a burden on society). Additionally, the progressive character of the system of social provision would be enhanced: the rich would pay taxes (however small) but would not be recipients of the benefit. An additional progressive effect is obtained through a redistribution of resources from the sphere of pension provision (where the rich are the greater beneficiaries, given that they live longer) to the spheres of health-care and the struggle to eliminate poverty (where, provided support is efficiently delivered, the less well-off are the greater beneficiaries).

Of course, the transition cannot be rapid; it will take one or two generations. But measures to prepare society and the existing system of social provision for fundamental reform must be taken now. First of all, we must create an effective system of support for the most needy citizens that will gradually

replace the current range of benefits and, in due course, the distributive pension system. Secondly, making use of gradual parametric reforms we must improve the ratio of employed to pensioners, so that more the radical changes will be more politically acceptable.[16] At the same time, these parametric reforms should be of a different design the kind of measures that have been introduced in Eastern Europe during the last 10 to 20 years.

First steps

One cannot achieve high replacement ratios, an acceptable level of insurance contributions and an improvement in the ratio of employed to pensioners without increasing the pensionable age. If such an increase is impossible in a short period of time, there are other measures that will produce a similar effect, but:

- would not entail an immediate increase in the pensionable age;
- would allow for differing choices as to the age at which the pension is taken;
- would accustom public opinion to the idea of a longer working life.

What would be propagated would be the idea of "active longevity", which would be accompanied by a reduced indexation of pensions in the event of retirement at the pensionable age and an increased indexation in the event of deferred retirement.

1. Stricter rules for the indexation of pensions and taking account of increase in life expectancy when calculating the insurance component of the pension

The present system of indexation of pensions is unique in that pension rights and the pension are indexed as follows: advance indexation at the rate of inflation, plus supplementary indexation at the rate of growth of earnings, if at the end of the year these have exceeded the rate of inflation (but not higher than the index of growth of revenues per pensioner to the Pension Fund of

[16] If 50% of the electorate are in receipt of pensions, then the introduction of targeted pensions and encouragement to take out private pensions will be impossible. If specific groups are gradually excluded from the traditional pension system (the rich, those who have not fulfilled the qualifying period, relatively young citizens) then the number of groups who are opposed will gradually diminish and resources will become available for "purchasing" more radical reforms from the population.

the Russia). However, this method of indexation does not give sufficient weight to cyclical fluctuations in the economy. In periods of economic downturn, pension obligations and expenditures on pension payments increase as a percentage of GDP since indexation is tied to the rate of inflation. During an economic upturn expenditures on pension provision and on pensions do not fall sufficiently as a percentage of GDP because indexation is tied to the rate of growth of revenues to the Pension Fund. Thus, under the present system of indexation the cyclical changes in the economy by themselves can result in an increase in pension expenditure as a percentage of GDP.

There is one example in history when a change in the indexation rules facilitated a balancing of the pension fund. The government of Margaret Thatcher abandoned the indexation of pensions according to earnings in favour of indexation according to inflation and thereby achieved a reduction in expenditures on pension provision in Great Britain. At present it is 5.4% of GDP, which is significantly lower than the OECD average of 7.0% of GDP, notwithstanding an older population.

In changing the rules of indexation of pensions, two basic rules must be observed: pensions must retain their purchasing power; and expenditures on pension provision must fall as a percentage of GDP during periods of economic growth. These conditions can be achieved by the following method of indexation:

- the basic component of the pension should be indexed according to inflation;

- pension capital and the insurance component of the pension should be indexed according to the arithmetical average of the rate of inflation and the average growth in wages;

- indexation of the insurance component and the basic component of the pension should take place once a year (in April) – advance indexation according to inflation should take place only in the event that the consumer price index increases by over 12% over a period of one quarter, the half-year or nine months.

Any expected increase in life expectancy should be taken into account in fixing the value of the pension. Slowing down the indexation of pensions is the most effective means of balancing the pension fund.

- this measure should be introduced gradually (by contrast, for example, with increasing the pensionable age);

- a set of long-term budget rules would be introduced and annual

haggling over the volume of expenditure on pension provision would be confined to the past.

A change in the rules for indexing pensions will achieve a reduction in expenditures of 1.1% of GDP by 2020, which will enable resources to be freed up for:

- programmes to incentivize the continuation of work after attainment of the pensionable age;
- a reduction in pension contributions;
- a more active development of the contributory pension system.

Over the period of reform we would witness a "diversification of potential": citizens who had chosen voluntarily to retire at a later age (see below) would receive a significant supplement to their pension, whilst those who remained with the traditional strategy would not receive this supplement.

2. A strategy of "active longevity": encouraging deferred take up of pension

Description of the programme: People in Russia who have reached pensionable age would be given the opportunity of voluntarily deferring take up of the pension; in return they would receive an enhanced pension. The value of the pension would depend upon the number of years of deferral. (See Table 2)

Table 2
Supplementary coefficient of increase in the working component of the pension when taken after pensionable age

Period of deferral	Coefficient of increase
1 Year	1.15
2 Years	1.35
3 Years	1.55
4 Years	1.75
5 Years	2.0

It should be possible top adopt this programme at any time following attainment of pensionable age and even some time after commencement of payment of the pension. Participation in the programme could last from 1 to 5 years. It should also be possible to opt out of the programme at any time and opt back in. In this case, the number of years during which take up of the pension has been deferred are added together.

We draw attention to the fact that the coefficient of increase makes for a real increase in the value of the pension (inflation and increase in wages are taken into account over the period during which pension is deferred). Additionally, in the case of participants in the programme their life-expectancy at the moment they attained official retrial age will be taken into account; in other words any future increase in their life span will not decrease the value of their pension entitlements. This means that an individual who took part in the programme for 5 years would receive twice the amount of pension as an individual with the same pension entitlements (at the point of attaining pensionable age) who had decided not to defer take-up of pension.

Evaluation of the popularity of the programme: The "Public Opinion" Foundation conducted a poll on the topic "Attitudes towards a programme of deferred pension"

1. Citizens of pre-pension age have fairly high aspirations for their life on a pension: they want not only to eat well and pay for their communal services, they also want to travel.

2. Obviously, current pensions cannot satisfy these aspirations, but a combination of continuing work and a higher deferred pension would enable them to realise some of their plans and approach the standards of consumption of pensioners in Europe.

3. 88% of those who took part in the poll fully understood the purpose of the programme.

4. 55% of respondents intended to continue working after reaching pensionable age and of this number 63% said that they wished to and would be able to retain their present employment. A majority of respondents thought that they would be able to work for an additional five years after reaching pensionable age. If, at present, these respondents are able to subsist without the state pension, then, assuming they retain their current employment, they will be able to subsist without it in the future. Deferral of receipt of pension by 55% of citizens of pensionable age for a period of five years should therefore be the target of the programme.

5. A programme such as that described was of interest to 18% of

respondents, but only 4% expressed a willingness to take part. This is a fairly optimistic estimate, given that mistrust of the state is fairly widespread in society, as is, as a consequence, uncertainty about the future. Given that this was the first time that the respondents had heard about the programme, their cautious reaction is understandable. Moreover, even of those who were positively disposed to take part in the programme, only half would be likely to do so in reality.[17] However, it is arguable that when the first participants began to take up their significantly enhanced pensions, the number of participants would sharply increase. Clearly, there would need to be a publicity campaign aimed at achieving a gradual but steady increase in the number of participants.

The above survey enables us to make the following assumptions as to the dynamic of numbers of participants:

- the number of pensioners embarking on the programme in the first year would be insignificant – around 50,000, and the average period of deferral would be 3 years;

- after 3 years the number of individuals embarking on the programme would increase to 330,000 (this figure corresponds to the 18% of respondents for whom the programme was of interest and who, over this period, would become convinced that they would not be cheated) and the average period of deferral would increase to 4 years;

- 10 years after the programme had been launched it would encompass all of those who were working after attainment of pensionable age (1 million individuals would join the programme annually) and the average period of deferral would increase to 4.5 years.

Budget consequences: Savings to the Federal budget would increase from 0.1% during the first year of operation of the programme (say, 2013) in line with the number of working citizens of pensionable age who remained in employment and deferred their pension and would reach a maximum of 0.55% of GDP in 2023-2024. Thereafter, as pensioners who have deferred their pension and who have been awarded increases take up retirement, savings to the Federal budget would gradually fall, reaching zero by the beginning of the 2030s. Thereafter, this particular measure would be a charge on the budget. However, savings from the change in indexation rules over the entire period would be so significant that the overall fiscal effect for the budget would be positive, and regularly exceed 1.5% after 2020 (See Figure

[17] According to estimates of the NISP (Independent Institute for Social Policy).

2)

Figure 2: Reduction in the deficit of the pension system under changes to the rules for indexation of pensions and introduction of incentivization of voluntary early retirement (%)

voluntary early retirement (in %)
Source: Estimates of the Gaidar Institute for Economic Policy

Other consequences: The formation of a significant group of citizens who are able to subsist without state support for a period of 5 years after reaching pensionable age and their improved material standard of living by comparison with those who preferred to take up their pension, will:

- increase the motivation of more experienced workers to remain in employment;
- counteract the dependency culture of the population;
- psychologically facilitate an increase in the pensionable age;
- in practice, immediately achieve an increase in the pensionable age (given that participation will be voluntary, the measure will be politically acceptable);
- encompass groups in the population (the older age groups) who for political reasons are not affected by the increase in the generally applicable pensionable age.

Supporting measures: The programme that is being proposed is often criticized on the grounds that citizens will refuse to take part. However, one could envisage the following measures:

1. Enrolment by default. At present citizens attaining pensionable age must formally submit documentation and apply for a pension; if they failed to do this they would automatically be enrolled in the programme.

2. If over 3-5 years the number of participants was not large (there would be significant economies as a consequence of reduced indexation), then employers could be offered additional incentives by being exempted from payment of the employer's contribution to the solidarity component (6% of the insurance contribution levied at the earnings threshold currently in force).

This measure would incentivize employers to retain the older generation in employment. The application of the tax benefit only to those of the elder generation who are deferring take-up of their pension ensures that this benefit, at least in the early stages, has a positive fiscal effect, given that the employer is relieved of pension contributions but the state is not paying out the entire value of the pension. The greater gain to the budget when compared with the total advantage to the employee and the employer in the short term provides some guarantee that this benefit will not be used as a means of avoiding taxation.

Moreover, the solidarity tax payment will continue to be levied on wages above the tax threshold (in 2012 the rate is 12% - in due course it would make sense to reduce this rate but in then medium term it should not be abolished). Retaining the solidarity deduction from high wages even in the case of participants in the "active longevity" programme will reduce the likelihood of abuse of the proposed benefit for the purposes of tax avoidance (there will be no long-term advantage to be gained from attaching the entire wages fund to one older citizen who is deferring his or her pension, as can be done under current legislation).

The proposed measure would not have a significant effect upon the labour market: employers will not take on older workers in order to gain a tax advantage; at the same time they will be incentivized to retain those of the more experienced and valued workers who have opted into the "active longevity" programme.

3. Even if an incentivization of employers does not produce the desired increase in the number of citizens enrolling in the programme, then in 7-8 years time one could return to the question of increasing the pensionable age (savings achieved thanks to lower indexation would make this possible, as would some kind of "generous gift" to pensioners – a "second revaluation". Alternatively, one could lower even further the indexation for "young" pensioners and award generous supplements to the "older" groups, with a view to avoiding a catastrophic decline in the replacement ratio for those who are genuinely incapable of work.

3. Supplementary measures according to the logic of "traditional parametric reform"

It is clear that a combination of measures involving a reduction in the indexation of pensions and incentivization of deferred retirement would postpone but not prevent an inevitable default of the traditional pension system. For this reason steps must be taken to prepare for a more radical reform of the system.

1. Solving the problem of early retirement:

- citizens who began work after a particular date (say 1 January 2013) and who are employed in enterprises that provide the opportunity for early pension payment would lose the right to early retirement (the risk of loss by them of work capacity should be covered by higher wages, voluntary insurance against loss of work capacity, or professional pension systems set up by employers on a voluntary basis.

- for citizens already employed in dangerous enterprises there would be an increase in the insurance contribution of 3% for those in List No. 1 and 2% for those in List No. 2 (this would weaken the incentive for employers to maintain or even increase the number of workers in both Lists.

2. An initial increase in the minimal work period after which a worker can claim entitlement to a labour pension from 5 to 20 years for women and to 25 years for men (these requirements applied until 2002) and then a gradual increase to 35 and 45 years respectively.

3. A gradual increase in the pensionable age (the increase in life expectancy will be a good argument in favour of this measure). At present, it would be realistic to increase the pensionable age for "young" citizens (those born before 1967, who have a contributory component in their pension provision). This should be announced now, so that citizens can become accustomed to the new arrangement. The new measure would take effect in 2022. The rate of increase should be half a year annually for women and three months annually for men up to 63 years of age. One could grant an earlier age of retirement to citizens with a very long work record. For example, when in 2038 the pensionable age is increased to 63 one could retain the option of retirement on pension at any age for individuals who had worked for 45 years.[18]

[18] This approach was recently applied to improve the balance of the pension system in Greece.

Given the political will, one could (before 2022) introduce an identical pensionable age for men and women. The announcement of a moderate and delayed increase in the pensionable age might even somewhat reduce social tensions: the present uncertainty creates as much tension as would an actual increase in the pensionable age. A precondition of the success of these measures would be the re-directing of a significant proportion of oil and gas revenues and revenues from privatization into the pension system (including the contributory pension accounts). The government must demonstrate that it is making its contribution to solving the pension problem and not placing the entire burden upon the population (for further detail on this issue, see below).

4. Tax rates and the attraction of additional sources of funding

If the Russian economy is to be modernized and its competitiveness enhanced, the tax burden on labour and capital must be reduced. The consequent reduction in budget revenues can be offset by an increase in excise duties on alcohol and tobacco, by large impositions of land rent, by increased taxation of the property of individuals, by revenues from privatization and by optimizing expenditures from the Federal budget.

A change in the rules for indexing pensions, a programme for encouraging later take up of pensions, stricter demands as to the qualifying work period and a reduction in the number of "hazardous" categories of work would by 2020 produce total savings equivalent to 10% of total pension contributions or 1.8% of GDP. Part of the savings could be used to reduce the rate of the pension contribution and another part to reduce the deficit in the pension fund. If revenues from oil and gas and revenues from privatization were utilized, it would be possible to begin reducing the contribution rates sooner. This policy would encourage economic growth, increase employment and bring wages out of the "shadows". Additionally, reducing the contribution rate and increasing the pension savings of citizens with the help of revenues from privatization would make privatization more popular with the general public.

Funding the pensions of current pensioners with the assistance of revenues from general funds is entirely justifiable. It is clear that pensions paid out to current pensioners have nothing in common with social insurance. It would be more correct to say that we are dealing here with the payment of a social debt to the older generations who were deprived of their savings by the collapse of the Soviet system. For this reason it is questionable whether these pensions should be funded out of the insurance contributions of the

present cohort of working citizens, since this places an excessive tax burden on a relatively narrow and changeable tax base. The pensions of citizens born before 1967 can be funded out of general taxation, land rent and revenues from the privatization of state property. The reserve funds could also make a contribution.

If funding is deficient, then one could argue in favour of an increase in VAT rather than an increase in insurance contributions. The reasons are as follows:

- firstly, the VAT tax base is significantly greater than that for insurance contributions;

- secondly, an increase in VAT would more effectively help to resolve the problem of the imbalance in the pension system that would result from a lowering of energy prices than would an increase in insurance contributions. Revenues from VAT are less sensitive to changes in the economic conjuncture than are revenues from insurance contributions;

- thirdly, an increase in VAT, unlike an increase in insurance contributions would not adversely affect the competitiveness of the economy. In the economy, insurance contributions are equivalent to a tax on wages, and this is reflected, in part, in the prices of goods. This means that an increase in insurance contributions would affect the competitiveness of exporters, especially in labour intensive branches of the economy. VAT, by contrast, is not levied on exports, but it is levied on imports.

We have an example of why an increase in VAT is preferable in the case of the Federal Republic of Germany, where recently a reduction in the rate of profits tax and social taxation coincided with an increase in VAT from 16% to 19%.[19] These measures were designed to increase the competitiveness of the Germany economy. By reducing taxes on labour and capital, the government of the FRG is seeking to attract investments (or at least to stem the flow of investments to the countries of Eastern Europe) and to increase employment. This increase in VAT, adopted in response to diminishing revenues, is also levied on imports. In this way German exporters will benefit from lower taxes on labour and capital but will, for the most part, be unaffected by the increase in VAT (which is refunded on exports).

We should add that in Russia at the present time there is some latitude for an

[19] www.imf.org/external/pubs/ft/wp/2007/wp0746.pdf

increase in VAT, whereas in the case of insurance contributions the base rate is fairly high. Firstly, there is a discounted 10% rate of VAT which could be abolished in the interests not only of budget revenues but in the interests of even-handed taxation. Secondly, many transactions are at present exempt from VAT. Thirdly, even the basic rate of VAT in Russia (18%) is low when compared with rates in many EU countries.

*** * ***

There must be a different pension system for different generations.

The purchasing power of the pensions of the older generation must be protected and the expenditure (above all the effectiveness of expenditure) of these pensioners on social and medical services, must be enhanced.

"Young" pensioners and citizens of pre-pension age should be offered a programme of voluntary, provisional deferment of pension in exchange for a significant increase in their pension at a later date.

In the case of the *middle-aged and of the younger generation*, the emphasis should be on enhancing the effectiveness of the contributory component and on stricter rules of "access" to the distributive pension system.

In the case of the *very young* (the group that is only now entering the labour market) there should be a fundamental change in the entire paradigm of pension provision. The traditional pension system should be replaced by a variety of voluntary investments in financial products, human capital and property. The role of the state should be limited to insuring against poverty in the event of loss of capacity for work. This policy would make for a radical reduction of the fiscal burden on labour.

This policy would facilitate a gradual dismantling of an outmoded state pension system over a period of two generations. So that these reforms should be as painless for society as possible, they should be introduced forthwith. Citizens should be given an honest account of the kind of pension system that would apply to each generation.

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