

# A NEW STAGE OF RUSSIAN DEMOGRAPHIC DEVELOPMENT

# 1.1. Three stages of Russia's demographic crisis

Adverse demographic trends, adding up to what deserves to be called a demographic crisis, have been apparent in Russia for some time. This crisis is bound to have negative impact on qualitative and quantitative features of the country's human capital, and on potential for development of that capital.

Russia has been affected by natural decrease of population since 1992: shrinkage has totaled 12.3 million persons over 16 years. This phenomenon has been partly compensated by immigration (5.7 million persons), but by the beginning of 2008 the Russian population had declined to 142 million from 148.6 million at the beginning of 1993, a reduction of 6.6 million persons.

This is not the first time that Russia has suffered loss of population. There were four such instances in the 20th century. However, the first three instances were related to social and military disasters, and the population loss stopped as soon as these disasters came to an end. Generally, the trend was towards population growth and the demographic situation seemed quite favorable. But this appearance was deceptive. Longterm evolutionary processes were at work – complicated by political, social and military disturbances, – which led inevitably to the depopulation, which began in 1992.

The most important factor to consider is fertility. None of the generations of Russians, born after 1910 and being of reproductive age between the end of the 1920s and start of the 1930s, reproduced itself. For so long as these generations were few in number and the general fertility level was defined by older cohorts, it remained relatively high. But in the first post-war decade cohorts of women with higher fertility gradually outgrew reproductive age and were replaced by younger cohorts with constantly declining fertility.

As a result, "transversal" indicators – crude birth rate and total fertility rate – were unable to regain their prewar level and steadily declined. By the beginning of the 1960s the fertility rate among urban women had fallen below 1. In rural districts the rate remained relatively high, but it was falling quickly. In any case, the share of rural population, and hence its contribution to the level of fertility, was also in decline.

By 1964 the total fertility rate failed to provide replacement of generations for the whole population of Russia and the net reproduction rate dropped below 1. The country entered a period of latent depopulation. This should be viewed as the beginning of the first stage of Russia's demographic crisis, which lasted until the year 1992. Only once during this period, in 1986-1988 – apparently due to demographic policy measures in the 1980s, a ban on alcohol sales, and (possibly) social optimism in the first years of "perestroika" – did the net reproduction rate rise above the replacement level. But this rally was followed by a further sharp decline. (Figure.1.1).

Decline of the net reproduction rate below the replacement level signaled the start of depopulation, though it did not entail immediate natural decrease of population. For a certain time the process of depopulation was hidden (latent): population size continued to increase thanks to population growth potential, accumulated in the age structure. But this potential had its limit: the current fertility level was consistently failing to provide population replacement and, eventually, natural decrease of population was bound to ensue. An official forecast by the Central Statistical Office of the RSFSR, carried out in 1980, predicted that natural decrease of population would begin in 2001.

Faced by the prospect of natural decrease of population in Russia and some other republics of the former USSR, the country's leadership took various measures at the start of the 1980s to boost the level of fertility. But their effect was very short-term and fertility started

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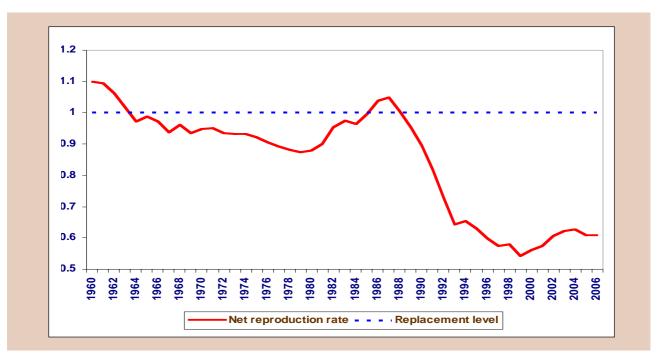


Figure 1.1. The net reproduction rate in Russia has been below the replacement level since 1964

to fall once again after 1987. The total fertility rate in Russia reached its historical minimum (1.73 births per woman) in 1991, just before the collapse of the USSR, and it continued falling in subsequent years against a background of economic and social crisis in the 1990s. Natural increase of population, which had declined catastrophically since 1987, came to a halt by 1992, when fertility decline and exhaustion of population growth due to age structure led to a situation where deaths outnumbered births for the first time since World War II. Natural population decrease signaled the beginning of the second stage of the demographical crisis: transition from latent to explicit depopulation (Figure 1.2).

Despite the population decline, during this second stage Russia received a "demographic dividend" related to specificity of the Russian age pyramid. Change in the proportions of various age groups has been favorable from economic, social and demographic points of view and this has done much to mitigate the growing crisis.

Specifically, the period since 1992 has seen constant increase in the number of people of working age (men from 16 to 60 and women from 16 to 55), from under 84 million in 1993, to over 90 million in 2006. At the same time, the number of children under 16 years old declined sharply, from 35.8 million in 1992 to 22.7 million in 2006, while the number of persons of retirement age stayed unchanged at 29-30 million (their numbers in 2006 were even somewhat lower than in 2002).

This has meant a steady decline of demographic pressure on the population of working age. In 1993 there

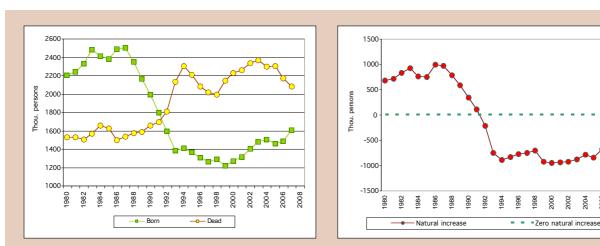
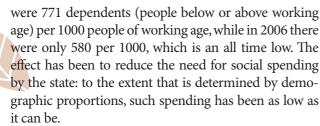


Figure 1.2. In 1992 the number of births dropped below the number of deaths and natural increase of population became negative





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Constant growth of the number of women of reproductive age (15-50 years old) has been another positive feature of this period, increasing from 36.3 million in 1992 to 40 million in 2002-2003. This number has decreased in recent years but has stayed higher than ever in the past. The number of women in the more limited age group, which makes the greatest contribution to fertility (women of 18-30 years, accounting for 75-80% of all births), increased from 19.9 to 14.2 million between 1992 and 2006, representing 2.4 million or 20% growth - a very high indicator. Russia experienced a similar trend, on an even larger scale, in the 1970s when the number of births increased constantly, despite some decline of fertility. There is no doubt that increase in the number of potential mothers contributed to growth of births after 1999.

Another important parameter is change in the number of young men of conscription age. The number of men aged 18-19 years has grown and in 2006 stood close to the maximum level, observed at the end of the 1970. So call-up targets could be met without undermining involvement of young men in education and the economy.

Thus, despite transition from implicit to explicit depopulation and, correspondingly, from the first to the second stage of Russia's demographic crisis, seriousness of the crisis has been largely mitigated by a "demographic dividend" due to economically and socially positive changes in age structure. However, these favorable changes have only temporary nature and cannot prevent development of the crisis, which has now reached its third – most dangerous – stage, when demographic dividends are exhausted and the change of age structure, in contrast with the previous period, becomes very unfavorable, aggravating undesirable consequences of population decline.

Transition from positive to negative trends in change of age distribution takes several years but its first signs are already visible. The number of women of reproductive age started to decline in 2004 and in 2007, for the first time in a long period, the number of people of working age also decreased. All available demographic forecasts predict that these tendencies will develop rapidly in the context of continuing natural population decrease.

# 1.2. Main demographic challenges in coming decades

### 1.2.1. Accelerating natural population decrease

Natural decrease of Russian population has been slowing down since 2001, as seen in Figure 2, but this is a temporary trend – one of the consequences of the above-mentioned demographic dividend. On one hand, significant growth in the number of potential mothers contributed to increase of births and, on the other hand, decline in numbers of elderly people put a brake on growth in the number of deaths. Since 2001 people reaching the age of 60 have belonged to the small cohorts of 1941 and subsequent years. The number of persons aged 60 and above has decreased by 10% in 2001-2006 as a result.

Impact of these two factors is already tapering off, but will remain in force for some time to come, holding back natural decrease of population until 2012. However, by 2012 the number of potential mothers will return to the level at the beginning of the 1990s and the number of elderly persons will return to growth as the large generation groups of 1949-1960 reach 60 years of age. Natural decrease of population will accelerate once again. The rate of acceleration will depend on success in lowering mortality and raising fertility, but no forecasters are expecting that changes in mortality and fertility will be able to stop the acceleration completely (Figure. 1.3).

So natural decrease of population is not about to cease. On the contrary, following a temporary respite, it will return to growth. The scale of future decrease is indicated by the medium scenario from Rosstat (2008), which suggests that decrease will decline to 463,000 persons in 2010, but will have risen back to 600,000 persons by 2017 and over 800,000 by 2025. Total population decrease over 19 years (2008-2025) will be in excess of 11 million persons. Other forecasts predict even greater losses.

In contrast with the preceding period, natural decrease of population will be accompanied by worsening of structural proportions, with highly unfavorable economic, social and political consequences.

# 1.2.2. Rapid natural decrease of working-age population

In the near future Russia faces a sharp decline in the number of people of working age (by Russian criteria, men of 16-60 years and women of 16-55 years). This

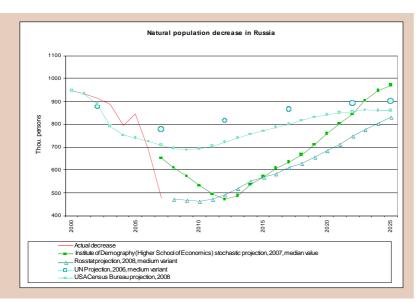


Figure 1.3. All forecasts suggest that decline of natural population decrease is temporary and will be reversed in a few years time

group has been growing throughout the last 5-6 decades, with some fluctuations, but the growth is now clearly exhausted. Numbers of people of working age saw a fall in 2006-2007, and this is the start of a sharp long-term decline. According to Rosstat, the workingage population will decline by 14 million in 2009-2025 (Figure 1.4). This coincides with estimates by the Institute of Demography at the State University - Higher School of Economics, which calculate probability of various predicted values: the most likely (median) figure for working age population decrease in 2008-2025 is 13.9 million persons, and this figure could fluctuate between 11 and 17 million within the limits of a 60% confidence interval.

# 1.2.3. Growing demographic burden on people of working age

Shrinkage of the working-age population will be accompanied by increase of the demographic burden (the number of persons above and below working age per 1000 persons of working age). A temporary breathing space, due to some decline in the number of elderly people, is coming to an end and growth in their numbers will resume. After remaining at a level of 29-30 million from 1992, the number of persons of retirement age has now started to rise and should exceed 31 million by 2011 (according to the medium scenario of the Rosstat forecast), which will be the highest level in history. There will be further increase by about 5 million persons in the period to 2025.

Surge in fertility after 1999 will also lead to increase in numbers of children and young people under 16 years old, from just over 22 million at the beginning of 2008 (a lower figure than at any time in the 20th century). Attainment of working age by small cohorts of the 1990s will intensify the trend. However, this growth will not be intensive or long-lasting. According to the Rosstat medium forecast, numbers of children under 16 years will reach about 26 million by the start of the third decade of the century. Realization of the most favorable fertility and mortality scenarios could push numbers as high as 30 million by 2024-2026 (matching the level in 2000), but a decline will then ensue. Meanwhile, growth in numbers of children under 16 years in the coming 10-

15 years will contribute to growth of the young-age dependency ratio.

According to Rosstat's medium scenario, the total dependency ratio (young and elderly) will increase from 578 per 1000 persons of working age (the historical minimum, registered in 2007), to 700 in 2015 and 822 in 2025 (by 20% and 41%, respectively). Contribution of the elderly to the total burden (about 35% in 1970) will rise to 55-60%. If the more optimistic Rosstat forecast, which predicts rapid growth of fertility, is realized, the dependency ratio in 2025 will still be almost 800 per 1000 of working age (Figure 1.5).

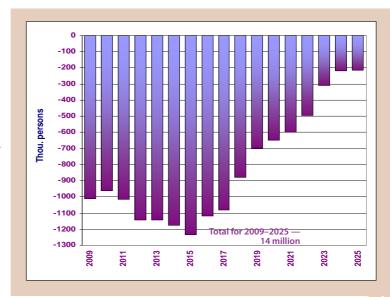


Figure 1.4. Medium scenario of the Rosstat forecast predicts loss of 14 million population of working age in 2009-2025

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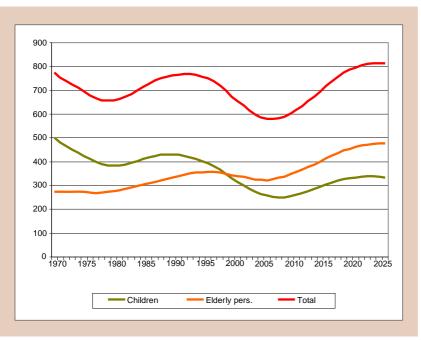


Figure 1.5. Dependency ratio per 1000 persons of working age will increase consistently, and will exceed 800 per 1000 by 2025, according to the medium Rosstat forecast

#### 1.2.4. Population ageing

Ageing of the population is a global tendency caused by new balance of births and deaths. Significant increase in the share of elderly persons in total population is due both to decline of fertility ("ageing from below") and decline of mortality among the elderly ("ageing from above").

In Russia the share of persons aged 60 and more increased from 9% to 17% from 1960 to 2006. This percentage is the same as in the USA, although significantly lower than in the European Union (22%) or Japan (27%). Ageing of the Russian population is continuing and the share of persons aged 60 will reach 23% in 2025, exceed-

ing the current European level. The share of people aged over 80 will also increase (Figure 1.6).

Another important consequence of ageing is change in the age ratio of older and younger groups within the economically active population: the share of seniors is growing while the share of juniors is shrinking (Figure 1.7).

No comparable age ratio has occurred in the past, and the existing economic and social systems (education, health care, employment, pensions), are designed for a much younger age composition. Reform of these systems to deal with irreversible changes in age ratio is one of the main challenges of coming decades.

## 1.2.5. Decline in numbers of potential mothers

Russia's demographic future depends to a large extent on the number of chil-

dren who are born in the country. Births are currently at a low level, which naturally causes concern among the general public and the country's leadership. Measures have been taken to boost fertility. But solution of this task at the current stage of Russia's demographic development will be more difficult than it was in the previous stage.

Current low fertility and low number of births (about 1.5 million births per year, compared with 2.2-2.5 million in the 1980s) is in the context of a near-to-ideal age structure context (the "demographic dividend" period), when the absolute number of women of reproductive age in Russia is as high as it never has been (a historical maximum of 40 mil-

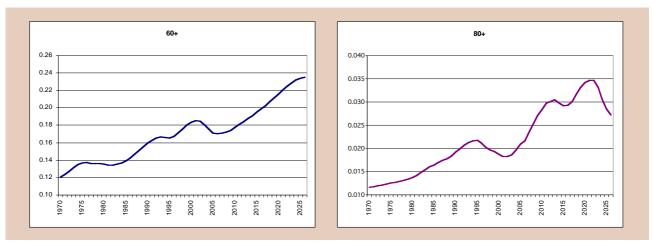


Figure 1.6. Percentage of persons aged 60 and over in the Russian population will rise above 22% in the next 15 years, and percentage of those over 80 will be 3.5%.

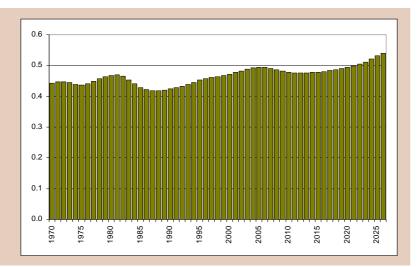


Figure 1.7. Share of people aged 40-59 in total population aged between 20 and 59 will rise to 54% by 2026

lion was reached in 2002-2003). The situation on the "marriage market" is also highly favorable.

These favorable conditions will soon be a thing of the past. Numbers of women of reproductive age (15-49 years old) have been in decline since 2004: losses will be over 5 million by 2015, and over 7 million by 2025 (compared with 2003). It is true that the number of women at their reproductive peak (18-29 years old, accounting for 75-80% of births) has continued to grow. But this trend will reverse in 2008-2009, leading to decline by 2.7 million in 2015 and 5.9 million by 2025. These estimates are not dependent on forecast variants, since all potential mothers of 2015-2020 have already been born.

In 2004, when the number of births (1.502 million) was at its highest in the period from 1992 to 2007, there were 37.7 births per 1000 women aged 15-49. For the number of women of reproductive age expected in 2025 to give birth to the same number of children, this ratio will have to rise to 45.7 per 1000. In any case, the annual number of deaths through the whole period up to 2025 will exceed 2.2 million, so 1.5 million births will not be sufficient. For births to keep pace with deaths, the number of births will have to be close to 2.3 million per year. That entails 70 births per 1000 women of reproductive age in 2025. Such indicators have been unknown in Russia since the mid-1960s and are unlikely to be achieved in coming decades.

#### 1.2.6. Russia's population decline

Theoretically the natural decrease of population can be compensated by migration inflow, which is the only way of stopping the population decline and, to a certain extent, ameliorating age composition. But the scale of natural decrease is so large that its complete compensation does not seem too probable.

The expected figure, mentioned above, of 11 million natural decrease of population in the coming 19 years is comparable with 12.3 million natural decrease during the last 16 years (1992-2007). That loss was only 46% compensated by migration, and most of the compensation was from the migratory splash in first half of the 1990s, when there was a mass inflow of Russians from former Soviet republics. After 2000 net migration compensated only about one fifth of natural decrease.

Experience has made forecasters very cautious when predicting the role of migration in compensating natural decrease of population. Most forecasts expect continued population decline. According to

medium variants of some forecasts, the population of the country in 2025 will be 128.7 million (United Nation Organization and US Census Bureau)<sup>1</sup>, 137.0 million (Rosstat, 2008)<sup>2</sup>, and 138.1 million (median of the probabilistic projection by the Institute of Demography at the State University – Higher School of Economics)<sup>3</sup>. This entails population decline by 10-20 million persons or 7-10% compared with the maximum seen at the beginning of 1993. Since all authors of the forecasts offer several scenarios, the range of possible size of the Russian population in 2025 is even broader, varying from 120.6 million (the lowest UN scenario) to 144 million (the upper limit of Rosstat's forecast) (Figure 1.8).

In itself population decline is an undesirable process, tending to reduce a society's strength and dynamism. The decrease is particularly undesirable for Russia with its huge territory, a significant part of which is thinly populated and underdeveloped. The situation is complicated by rapid natural decrease of population of working age, threatening to put a brake on the country's economic development. In these circumstances, it is natural to look at ways of increasing compensatory immigration. But potential for using migration as a solution is now limited.

#### 1.2.7. Large influx of immigrants

Increase of population through migration in coming decades will depend largely on Russian migration policy. But whatever this policy is, it has to take into consideration objective limitations of a socio-psychological and socio-economic nature, which make full-scale compensation of population loss by means of migration unlikely.

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Official demographic policy of the Russian government declares a goal of stabilizing Russian population numbers by 2015 and "ensuring gradual increase of population (including due to compensatory migration) to 145 million persons" by 2025. By 2025 Russia should obtain "migratory inflows of over 300,000 persons annually". The most ambitious of latest forecasts by Rosstat (see Figure 6), which looks extremely optimistic (in particular, fertility by 2015 in Russia will need to exceed the current level in all European countries except France and Ireland), assumes achievement of these targets. According to this scenario, natural decrease, and thus also need for compensatory migration, will decline below 200,000 persons in 2012-2017, after which it will grow to more than 300,000 persons in 2020 and rise above 500,000 in 2025.

Rosstat's medium forecast looks more realistic. It supposes that positive changes in fertility and mortality will be more modest, but it counters this by making larger demands on immigration. In this scenario net migration will have to exceed 500,000 annually in 2013 and 800,000 in 2024 in order to compensate natural decrease. Authors of the forecast consider such volumes of migration as unrealistic, and suppose that migration will in fact provide only partial (about 55%) replacement of natural decrease. That will not be enough to stabilize Russia's population, which will diminish to 137.5 million by 2025, or to compensate natural decrease in population of working age, which will be reduced from 90 to 75 million people.

But, even in this case, annual immigration levels will be much higher than at present and could give rise to intractable social and political problems. According to official data, registered migratory increase of population in Russia in 2007 was 240,000 and the average figure in 2001-2007 was 175,000. Until now this increase has consisted mainly of Russians and representatives of other

ethnic groups with origins in Russia: these two groups together were 76% of all immigrants in 1992-2006 and ethnic Russians alone were 67%. But their shares is declining: in 2006 the two groups were only just above 50% of all immigrants and ethnic Russians alone were just 43%. This trend will continue as numbers of Russians located abroad who are disposed to move back home gradually decline. Greater shares of foreign immigrants will significantly aggravate problems of integration in Russian society and could make it impossible for the country to digest the quantities of immigrants, which are called for by demographic and economic logic.

However, significant increase of immigrant arrivals looks more likely than sharp increase of fertility, making it reasonable to view migration inflows as the main resource for replenishment of the Russian population in the future. For this to happen, current inertial decline of immigration has to be halted and targets must be set for inflows of migrants. At present, demographic policy remains focused on return from abroad of people whose homeland is Russia. But potential volumes of such migrants are limited, even in the most favorable scenario.

## 1.2.8. Possible rise of emigration

As well as facing hitherto unknown problems of immigration, Russia in the last 15-20 years has had to deal with problems of emigration. The latter has not been on a large scale to date, but it is a relatively serious problem, due to high quality of the outgoing human resources, which justifies talk of a "brain drain".

While migratory exchanges with former USSR republics give Russia positive net immigration, the balance of migration between Russia and other foreign countries – the so-called "far abroad" – has been consistently negative. This trend was established in the second

**Insert 1.1.** "Any country has limitations on its immigration capacity, associated with social adaptation in the host country of immigrants with different cultural traditions, stereotypes, etc. So long as immigrant numbers are small, they are relatively quickly assimilated to the local cultural environment, melting into it without any serious problems associated with intercultural interaction. But when the number of immigrants in absolute or relative terms becomes significant and (most importantly) grows quickly, the newcomers form more or less compact socio-cultural enclaves in the host country and the process of assimilation slows down, resulting in intercultural tension. This tension is aggravated by economic and social inequality between "locals" and "aliens" ... All of this is fully applicable to Russia: like other countries, which have undergone demographic transition, it also needs immigrants, it also feels migratory pressure from outside, and it is also aware of objective limits to its immigration capacity. As in any country, these limits are related to the situation on the labor market and, in particular, to "carrying capacity" of mechanisms of adaptation and assimilation, and to the velocity of social and cultural integration of immigrants."

Population of Russia 2002. Tenth Annual Demographic Report. Edited by A.G. Vishnevsky, M., KDU, 2004, p. 209-210. half of the 1980s, before the collapse of the USSR (when members of certain ethnic or confessional groups were allowed to emigrate), and it developed further in the 1990s (particularly from 1993, when a law was enacted, which gave freedom of movement in and out of the country). The number of emigrants rose quickly, although the huge burst of emigration from Russia, which some countries of Western Europe feared at the start of the 1990s, did not materialize.

Initially, emigration had a mainly "ethnic" character: Germans and Jews were 60-70% of all registered emigrants. Armenians, Greeks and representatives of other eth-

nic groups also left, but in smaller numbers. Supply of "ethnic" emigrants was gradually exhausted: registered emigration remained stable at a level of 80-100,000 per year for a certain time, and then started to decrease. However, the outflow gave a large net loss in migratory exchange with countries outside the former USSR. According to Rosstat data, the loss was more than 1.1 million persons in 1989-2006, and this only includes registered migration. But unregistered emigration was also at high levels.

Registered emigration in 2006 was only 10,000 persons, which represents a large decline and, apparently, should not cause special anxiety. But we should bear in mind that depopulation trends are also gaining strength in Europe, leading to workforce shortages in many countries. Western European countries therefore need immigrants and they are diversifying inflows by accepting newcomers from Eastern Europe and Russia. When Eastern European countries entered the European Union, many of their workers moved to more prosperous states, aggravating labor shortage problems and encouraging these countries to use workers from Russia, Ukraine and some other CIS countries. Facilitation of residence procedures for "Gastarbeiters" from Russia, Ukraine and Belarus, adopted in 2008 in Poland, are an illustration of this growing trend. If difference in salaries between Russia and such countries as Poland (not to mention Western and Northern Europe) remain in place, competition with Europe for workers will become another serious challenge for Russia.

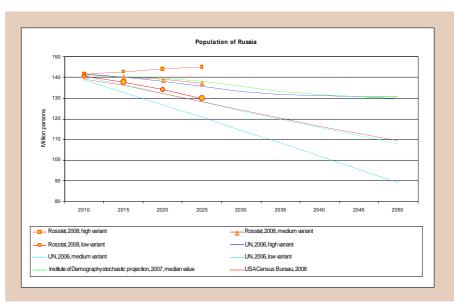


Figure 1.8. Most forecasts are of further Russian population decline

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In 2006 in his Message to the Russian Federal Assembly, President Vladimir Putin called demography "the most acute problem of modern Russia". His speech focused attention of the government and society on problems of demography and led to some practical measures for amelioration of the demographic situation. Vladimir Putin and the current President Dmitry Medvedev have emphasized that Russia has so far only taken the first steps and that efforts to overcome the demographic crisis need to be developed further.

Many difficult tasks remain to be solved along the way, and the start of a new phase of demographic development, with many highly unfavorable aspects, makes their solution even more complicated. There is no reason to expect that the demographic crisis in Russia, which is the outcome of negative inertia accumulated over decades, will be quickly overcome. Many demographic illnesses have no tried and tested cures. Some of these illnesses are common to other urbanized, industrial and post-industrial countries, have roots in modern ways of life, and are highly intractable for governments, even for a government that pursues a vigorous demographic policy. The capacities and limitations of such policy need to be given a sober and realistic assessment. We cannot change everything, which we do not like. So policy needs to include not only efforts at changing adverse trends, but also measures for adapting to trends, which cannot be changed.





<sup>&</sup>lt;sup>1</sup> Population Division of the Department of Economic and Social Affairs of the UN Secretariat. World Population Prospects: The 2006 Revision; U.S. Census Bureau, International Data Base.

 $<sup>^2</sup>$  Hypothetical population of Russia up to 2025. Statistical Bulletin, M., Rosstat, 2008.

 $<sup>^{3}</sup>$  Population of Russia 2006. Fourteenth annual demographical report, M., 2008.