National Human Development Report
Russian Federation
2008

Russia Facing Demographic Challenges

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The National Human Development Report 2008 for the Russian Federation has been prepared by a team of Russian experts and consultants. The analysis and policy recommendations in this Report do not necessarily reflect the views of the UN system and the institutions by which the experts and consultants are employed.

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Readers are invited to inspect the latest Human Development Report for the Russian Federation. National reports such as this are published on the initiative of the United Nations Development Programme (UNDP) in many countries of the world. Global reports are also brought out annually. The reports are compiled by teams of independent experts.

The central theme of the present Report is encapsulated in its title, 'Russia Facing Demographic Challenges'. The authors have attempted to analyze main aspects of the most urgent demographic challenges, to offer their analysis of causes and to highlight certain constructive axes of socio-economic policy, which can serve to reduce mortality rates, improve the present birth rate, regulate migration flows and, at the same time, to alleviate adverse consequences of demographic trends, which cannot be adjusted in the nearest future.

The Report is intended for use by senior administrative personnel, political scientists, teachers, scientific researchers and students.

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ADDRESS TO READERS

The National Human Development Report, "Russia Facing Demographic Challenges", prepared by the United Nations Development Programme in 2008, presents main issues associated with one of the most acute problems facing Russia today – unfavorable demography. The authors provide detailed analysis of the existing demographic situation and a forecast of its future development, consider options for overcoming the negative trends, and assess the consequences of expected demographic trends for the economy, society, education and health care.

Our common objective is accelerated human development in Russia as a precondition for the country's full-scale socio-economic development. Achievement of that objective is the purpose of the Concept for Demographic Policy of the Russian Federation up to 2025, which has been approved by Russia's President. All available reserves need to be mobilized for this task: improvement of health and reduction of mortality, greater economic activity and employment rates among various age and social groups, improved levels of employee qualification and greater labor productivity, inter-sector and interregional re-distribution of human resources, and best use of the potential offered by labor migration. This approach has the support of the general public, the government and business.

The difficult financial and economic context, which has been prevalent worldwide since autumn 2008, should be seen from a viewpoint of new opportunities and further impetus towards Russian economic growth based, first and foremost, on internal factors: high investment and consumer demand and growth of household incomes. Human development has to be the key factor for implementation of new investment projects, for transition from a commodity export model to an innovative and socially oriented development model for the Russian economy.

I am confident that this National Human Development Report for the Russian Federation will be important, relevant and useful to politicians, government officers (at all levels), scholars and journalists – in a word, to everybody, to whom Russia's present and future is of concern.

E. Nabiullina,
Minister for Economic Development
of the Russian Federation

DEAR READERS!

I am proud to present to you the 12th annual National Human Development Report for the Russian Federation published by the United Nations Development Programme (UNDP).

The year 2008 was marked by the financial and economic crisis, which spread globally, affecting all groups of population around the world. Slowdown in economic growth, the rise of unemployment and cuts in social programs, including official development assistance, are among of the likely and unfortunate consequences. Under the circumstances, investments in human capital and unleashing the human potential of all, including marginalized groups of population, are important preconditions for a return to steady growth. It is also a good time to reevaluate policies and introduce innovative solutions, ranging from energy efficiency to productivity gains and accessible education.

This year's report entitled Russia Facing Demographic Challenges looks at some of the important, but unresolved issues, including migratory imbalance, cultural and social integration and cohesion, competition at labour markets and labour outflows. Renowned Russian experts presented their views of demographic trends and distribution forecast of various age and gender groups in the near future. They also carefully examined some of the first results of governmental measures aimed at tackling the problematic issues in the area of demography.

Many important issues, such as education, child and maternal mortality and gender equality, scrutinized in the 2008 Report, are directly related to the Millennium Development Goals, adapted for Russia and its regions in the 2005 and 2006/2007 Reports. We also continue the good tradition, laid by the last years' reports, to present Human Development Index (HDI) for Russia's regions. In 2008, we place a special emphasis on the Gender Human Development Index (GDI), which essentially, presents the HDI indicators disaggregated by sex.

On a final note, I would like to sincerely thank our national partner, the Ministry for Foreign Affairs, for continuous support of the National Human Development project, which today, besides the National Report, encompasses and advances other important aspects, such as human development education and sub-national Reports.

It is with great satisfaction that we receive feedback from our Russian governmental and non-governmental partners, international development organizations about the usefulness and applicability of the UNDP Reports in their daily work. Therefore, I sincerely hope that the 2008 Report shall become an important trigger for additional research and mature policy deliberations.

Marco Borsotti,
UNDP Resident Representative in the Russian Federation

PREFACE

The Report "Russia Facing Demographic Challenges" written by a group of experts is a very timely discussion of issues, which are of the highest priority for our country. At present the whole world – and not only Russia – is in the throes of a global demographic transition. We are passing from the initial stages of developing our productive forces – industry and culture, which were supported by growth of the population, towards a new paradigm of global development, where the population is to become stable.

The profound change in paradigm of development is by far the greatest change in human history, since mankind first came into existence a million years ago. It is a genuine demographic revolution affecting all aspects of social life. The all-pervading impact of demographic change is seen in the broad range of social issues discussed in the Report. These challenges, which have now attracted general attention, can be expressed by the concept of the demographic imperative. For the authors of this Report, demography is not merely a compilation of statistical data, but a vantage point for gaining insight into the economic and social changes facing us all. This enables us to escape from purely factual analysis and to look into the dynamics and diversity of these phenomena.

The comprehensive and inter-disciplinary analysis, developed by the authors, lead to important and specific recommendations, which should now be expressed in demographic policy. The decisions to be taken are vital for Russia's health and education system, for the economy and security of the realm. These decisions have direct impact on all social strata and are to set the course of Russia's history into the foreseeable future.

The long history of Russia and the expanse of its geography, the variety of ethnic groups and their cultural and educational levels, as well as diverse economic trends have led to complex and, at times, painful patterns of migration. Russia's experience provides significant examples for discussion and resolution of these issues, which are both regional and global. Comprehensive studies of them are of practical interest, for they provide examples of the contemporary treatment of global problems. This provides instructive experience both for Russia and other countries and regions of the world. These studies are of special significance for countries now adjacent to Russia within the borders of the former Soviet Union.

In 2006, President Vladimir Putin addressing the nation, referred to demographic issues as "the most acute problem facing Russia of today". In this Report, a highly qualified response to this appeal is made. It calls for increasing the potential of our country, as a response to a clearly stated social demand, which is steadily gaining in its importance.

Professor **S.P. Kapitza**

INTRODUCTION

This is the 12th National Human Development Report (NHDR) for the Russian Federation. Such reports are published in many countries on the initiative of the United Nations Development Programme (UNDP). Global development reports, containing overviews for all countries, are published annually. Texts are prepared for the UNDP by groups of independent experts.

The 2008 NHDR for the Russian Federation is a conceptual sequel to several earlier national reports prepared by various independent groups of Russian experts with assistance and support from the UNDP Representative Office in Moscow. Like all the earlier reports, it is not an account of the socio-economic situation in the country over a specific period of time, but a work of scientific analysis.

The main theme of the 2008 Report is "Russia Facing Demographic Challenges". Demography, as much as economic and social progress, is a part of the concept of human development. Long life and health are the basis, which enable extension of human choice, creative life, material prosperity, access to high-quality education and full participation in society. Without them, many opportunities remain unavailable and many ambitions for a better life unattainable. This is why life expectancy is one of the three parameters used to calculate the Human Development Index (HDI). As noted by Amartia Sen, one of the originators of the human development concept and a Nobel Prize Winner (1998), "mortality rate is reflective of how far the given society is able to transform economic resources it has into products and services of major importance. The simple mortality rate is more revealing of the prevalent public development level and trend than a complex of macro-economic indicators" (Human Development: New Aspect of Socio-Economic Progress/V.P. Kolesnikov, ed. Moscow: Human Rights, 2008, p.195-196).

Regrettably, life expectancy indicators pull down Russian HDI. Russia has been grappling for some time with demographic developments, which must be qualified as a crisis. Short life expectancy is the main feature of this crisis, though by no means its only feature. The birth rate is too low, the population is shrinking and ageing, and Russia is on the threshold of rapid loss of able-bodied population, which will be accompanied by a growing demographic burden per able-bodied individual. The number of potential mothers is starting to decline and the country needs to host large flows of immigrants. The list of problems could be continued.

The authors have attempted to analyze the most acute demographic challenges, presenting their view of how these challenges have arisen and indicating constructive paths for socio-economic reform, which would enable lowering of mortality, improvement of the birth rate, proper regulation of immigration flows, as well as mitigating unfavorable consequences of demographic trends, which cannot be reversed in the near future.

The authors have relied mainly on official Russian statistics, provided by the Federal State Statistics Service ("Rosstat" in the Russian abbreviation), ministries and government agencies. In instances where several sources of information were available, preference has been given to officially published materials. Where information from other sources is used, appropriate references are made. In some instances, the authors have used the findings of opinion polls.

The UNDP and authors of the Report have maintained a constant dialog with agencies of government and civil society during the Report's preparation.

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EXECUTIVE SUMMARY

The principal topic of the National Human Development Report for 2008 is "Russia Facing Demographic Challenges".

The first chapter of the Report, entitled **"A New Stage of Russian Demographic Development",** gives a general description of the challenges, which Russian society will have to face in coming decades during a new – and, in many ways, unfavorable – era in its demographic evolution. The search for solutions is expected to be complicated by the need to overcome negative inertia, which has accrued in previous decades.

The first stage of the Russian demographic crisis emerged in the mid-1960s, when fertility first dropped below the replacement level, and the country entered a period of latent depopulation. In 1992, the latent depopulation became manifest, as natural population increase gave way to natural decrease, signaling the start of a new, more dangerous stage of the demographic crisis. However, until very recently, consequences of population decrease have been mitigated by favorable changes in age structure, and the country has been enjoying a so-called "demographic dividend". Today, that stage is also over, and the demographic dividend is fully exhausted. The next stage is continuation of natural population decrease coupled with unfavorable changes in age composition.

The resulting demographic challenges, which have to be adequately met in coming decades are: growing natural population decrease, entailing rapid decline of total population of Russia; rapid natural decrease of working-age population; growing demographic burden on the working-age population; general ageing of the population; decline in the number of potential mothers; a large influx of immigrants; and possible growth of emigration rates.

Responses must be sought, in part, through the demographic mechanisms of higher fertility and reduced mortality. However, there is no guaranteed treatment for many demographic ills. Some of them, suffered by Russia in common with all other urbanized, industrial and post-industrial countries, are deeply rooted in modern life styles and cannot be fully addressed by government policy, however well-designed. There has to be a realistic assessment of what can be done, and recognition of policy limitations. Not everything, which we find disagreeable, can be remedied. Efforts to resist the unfavorable trends must be combined with efforts to adapt to what cannot be resisted. This means that adequate responses to demographic challenges have to be sought not only in demographic, but also in economic and social spheres which should be transformed in view of new demographic realities.

Chapter 2, entitled **"Growth of Fertility: The Start of a Road with Distant Horizons"** discusses the essentials of demographic policy related to fertility. Fertility trends in Russia have long been similar to those of most industrially developed countries. There have been several fluctuations since the early 1990s, but Russia remains among countries with very low fertility.

Concerns in Russian society about the adverse fertility situation encouraged preparation, in 2006-2007, of a new version of the government's Concept for Demographic Policy in the period until 2025. In January 2007, a new package of support for families with children was implemented and, since then, public attention has been drawn to a turn for the better in birth rate trends. However, experts remain skeptical and point out that temporary growth of fertility may be followed by a new fall, as has occurred in nearly all countries, which applied similar pro-natalist measures.

Fertility decline in Russia during two last decades has occurred in a context of later marriages and a later average age at childbearing, as well as a larger share of people living in informal unions and larger contribution of such unions and second (or subsequent) unions to the birth rate. Such trends have been typical of developed countries over several decades and there is every reason to expect that they will continue.

At present policy concepts are underestimating fundamental structural changes in marriage & family relationships, household micro-economy and fertility in the medium and long term, and this casts doubt on attainability of fertility targets in the time limits envisaged by the Demographic Policy Concept. Trends up to 2007 make further decline in fertility of real generations looks more probable than its growth. It may well be that further consistent attention on the part of government to family policy, will encourage more optimistic public expectations and real-generation fertility will grow. At present, however, the new demographic policy has not led to changes in pro-reproductive attitudes in society.

But even if the most optimistic expectations are realized and generations born in the 1990s achieve a new higher level of fertility, these generations are too small to make a large absolute contribution to the total number of births and, hence, to natural population growth. They cannot reverse depopulation trends.

The categorical imperative for Russia is **reduction of mortality,** analyzed in Chapter 3. Since the 1960s there has been a widening mortality gap between Russia and developed countries (and now, increasingly, also developing countries). The gap underlines the profound nature of Russia's mortality crisis.

Russia is still at the very beginning of the second stage of the epidemiological transition, in which self-protective behavior needs to become an important element of life styles throughout society. Insufficient efforts by people to look after their own health and safety determines the specific feature of Russian mortality: its extremely high level among people of working age (15-60 years), particularly among males. A minor reduction in mortality in recent years (2005-2007) does not suggest any radical change, and there are no reasons as yet to think that Russia has even begun to address this crisis. Russian level of mortality remains far in excess of this observed in developed countries.

Failure to complete the epidemiological transition is evident from data on causes and ages of death in Russia. There has been no success to date in reduction of mortality due to circulatory diseases in relatively young age groups and mortality due to external causes of death (mainly among men).

The battle against mortality remains focused on paternalistic health efforts, introduction of new medical treatments, high-technology health care, etc. But there have been almost no changes in people's attitudes to their own health and increase of propensity among people to treat their life as a value in itself. This is the principal obstacle to reduction of mortality.

The complex and contradictory nature of migration processes are the subject of Chapter 4, entitled: **"Internal Migration: Great Past, Modest Future"**. Internal migration was a powerful leverage tool for population redistribution in Russia, but this is no longer the case: urbanization, which drove large numbers of people into the country's cities throughout the last century, has now been completed, and migration potential is also limited by population decrease and changes in age composition (dwindling share of young people, who are usually the most mobile group).

The most prominent geographical feature of post-Soviet internal migration is so-called "western drift", i.e. population outflows from eastern regions of this country to its European part, entailing accelerated population decrease in already under-populated areas. Migrants are concentrating in the largest cities and their vicinities, particularly in the Moscow metropolitan region.

Socio-economic polarization during the last decade and a half has engendered a mass phenomenon of temporary labor migration. Residents of villages and towns are flooding regional centers and big cities in search of jobs. For various reasons, such migration usually does not entail change of permanent residence (partly due to administrative barriers to such change). In any case, far from all Russians are ready to move to regions, where jobs are available, as evidenced by major supply/demand disproportions on local job markets and structural

unemployment. Low mobility of the Russian population is detrimental to many households, who are unable to use their human potential to the full. It is also an impediment to economic development.

Government attempts to regulate internal migration processes were not fully successful in the Soviet period and can hardly be of any avail in the present situation. Despite this, some sections of government continue to believe that migrants should move "where required", not where they choose. Migration is a self-organizing social process and the interests of national and social development require removal of all restrictions and barriers to migration.

The fifth chapter of the Report, entitled: **"Immigration: Salvation or a Trojan horse?"** deals with the increasingly urgent and important issue of international migration.

The new geopolitical configuration on the territory of the former Soviet Union and the start of depopulation processes in Russia have given rise to profound transformations in international migration processes. The demographic recession, which is affecting the working-age population, creates need both for permanent migrants and for temporary international labor migrants.

Until recently, most migrants seeking permanent residence were homecoming ethnic Russians and other ethnic groups originating from Russia, or their descendants (two thirds of population growth due to migration, reported for Russia in 1989-2007, was due to ethnic Russians and about 12% was due to other ethnic groups with homelands in Russia). On the whole, the homecoming of several million compatriots was beneficial for the Russian demographic situation. Repatriation potential is not yet fully exhausted (a few million more may yet return), but future prospects should not be over-estimated and the period of mass repatriation to Russia is probably over. Decline of repatriation motivation is evidenced by low efficacy of a current government programme to encourage return of Russians from former Soviet republics.

By contrast, there has been rapid increase in labor migration to Russia by natives of former Soviet republics. Estimated population of foreign labor migrants in the Russian Federation is about 6-7 million, and, as national human resources continue to decline, Russia will need even greater numbers of such migrants. Although such migration is usually viewed as being of limited duration, a large share of labor migrants are in fact living permanently in Russia and, if supported by wise policy, they could represent a major demographic reserve for the country as well as providing human resources required by employers.

Reform of migration laws in 2006 did much to simplify migrant legalization, enlarging the share of legal migration flows and reducing the share of illegal migration, although the latter remains unacceptably large. As things are today, it is very important to continue liberalization of migration policy and to extend existing legal migration channels. Russia will have to respond to the challenges of large-scale immigration in any case and the challenge will be much tougher if prohibitions continue to drive such migration into non-legal channels.

Demographic effects on the economy are scrutinized in Chapter 6, entitled: **"Demographic Challenges and Economic Growth"**. In coming decades Russia faces a historically unique task of supporting high economic growth rates despite decline in population, particularly in working age groups. The labor force will decline in overall size, and the decline will be concentrated at the young end of the labor force.

Adverse effects of demography on the Russian labor market make it important to mobilize all available reserves, which can even partially compensate deficits and tensions in employment and offset adverse effects on the pace of economic growth in Russia. Key reserves include: improvement of health and reduction of mortality; increased rates of economic activity among the young and middle aged; improvement of employment rates among the retired and disabled population; extension of normal working time; inter-sector re-distribution of human resources and growth of productivity

rates; interregional re-distribution of human resources; and international labor migration. As the working-age population declines, high economic growth rates in Russia are increasingly dependent on productivity improvements. The reserves just mentioned could add about 13 million people to employment in Russia, offsetting nearly all working-age population losses in the inertial demographic scenario.

An efficient employment policy should aim to increase the share of lifetime spend in employment, from youth to old age, but only on condition that employees both keep their qualifications up to date and add new competences. More efficient use of dwindling of employment, education, health, pensions, social infrastructure, the family, etc.

Ways and means of addressing the challenging socio-economic problems are presented in Chapter 7, entitled: **"Demographic Challenges and Social Spending"**. Regardless of how demographic changes actually occur, dependency pressure on the working age population will grow. However, specific structure of dependency pressure under one scenario of future development is dissimilar from that under the other scenario: according to the inertial scenario, dependency pressure will grow, mainly, due to a larger senior-age population, while the child population will tend to dwindle. But the optimistic forecast suggests that dependency pressure will grow much more rapidly than under the inertial forecast, due both to the growing child population and the more rapidly growing retirement-age population. Differences in expectations under the two forecasts are very important for probable structure of additional social expenditures. Although higher fertility, improved health and reduced mortality are, no doubt, beneficial for economic growth in the long term, and are purposes to be pursued per se, their attainment in the short and medium term can be detrimental to faster economic growth.

Pension expenditure represents the largest share of government social expenditures and, in an ageing society, such expenses will grow further. If the optimistic demographic forecast comes true, total growth of pension payments and health and education expenditures will be 8-10% of GDP, which is much more than the Russian economy can afford. Without major update of the pension system, living standards of the senior-age population will remain low and proper incentives for the working population will be lacking.

At the same time no improvement of pension payments can fully tackle the problem of helplessness and loneliness in old age. One of the major tasks of old-age social policy, in conditions of society's ageing, is to develop government and private programmes for social servicing of the elderly, home care and various forms of joint leisure by retirees (temporary care facilities, well-equipped old people's homes, etc). Social institutions in the ageing society need to accomplish radical reconstruction of the system of social relationships for provision of care to the senior-age population.

The young child care market in Russia remains under-developed. Available services are almost undifferentiated and even services offered by kindergartens are unaffordable for some social strata, while terms and conditions of service provision sometimes fail to match existing needs. No family can compensate existing government policy failures and inadequate development of the social service market.

Demographic processes in Russia in the near future will depend much on the education system, which will have to tackle new tasks and issues. All these are discussed in Chapter 8, entitled: **"Demographic Challenges and the Education System"**. Population age groups, which are main recipients of secondary and higher vocational education, are expected to almost halve in the future, so tertiary (secondary and higher vocational) education will be seriously affected. There will also be significant impact from migration flows.

It is to be expected that almost two-fold decline in population age groups using tertiary education (17-22 years) will lead to reduced numbers of higher education facilities in the next 10 years and their greater polarization, as well as tougher competition between facilities

for each applicant, particularly between secondary and higher vocational education facilities and between full-time and non-full-time departments within higher education facilities. Probable outcomes are: more rapid shrinkage of secondary vocational education than of higher education; and lower quality of education and professional training due to less rigid eligibility standards.

Forecasts suggest that population of school age will be 13% less by 2013 than in 2007, followed by modest growth in subsequent years. The decline in numbers entails various challenges for the education system, from reduced efficiency of education expenditures (due to lower average number of children per class and per school) to issues of social security for redundant teachers.

Ongoing migration processes (greater number of arrivals from ex-USSR countries and larger internal migration from regions with less developed economies) will require adaptation of the education system to assimilate migrants and their children into the Russian society and to teach Russians the skills needed to live successfully alongside a growing migrant population, sometimes dissimilar in ethnic origin, culture and religion.

Overall demographic processes (decline in working-age population and growing share of senior age groups in total working population) make it important to develop and further extend supplementary vocation education. Such education aims to update knowledge and skills acquired by employees in the past to ensure that it corresponds to the economic standards of today, as well as improving professional training to immigrants and helping a part of the economically inactive population to enter the labor market.

The adverse medico-demographic situation in Russia calls for adequate responses from the health care system. The options are considered Chapter 9, entitled: **"Demographic Challenges and the Health System"**. Priorities include greater affordability/accessibility and quality of medical care, development of the prophylactic system and more active precautions against major morbidity and mortality risk factors. Strategy to combat the mortality crisis in Russia should be designed through analysis of the structure of causes of death, and should deploy comprehensive and properly funded programmes with maximum active participation of patients and the public at large.

Post-Soviet health care reforms have been primarily focused on improvement of health care funding, and have not always been equal to the demographic challenges. They have often ignored macro- and micro-economic conflicts of interest between public health participants. The practice of budget insurance by regions has failed to solve urgent tasks and tends to encourage careless spending by health facilities, growth of a shadow economy in the health sector, sharp differentiation in resources available to the sector in different regions, lower quality of available medical care and (inevitably) adverse effects on the quality of public health.

Meeting current challenges to the health system requires more funding for medical care, but also wiser use of money through improved health care planning to suit the actual medico-demographic situation. There needs to be wide-scale implementation of economic management methods, which help to motivate better operating efficiency by improving mechanisms of payment for medical care and salary payments to medical personnel. Ways must be found of making people more committed to protection and improvement of their health, while ensuring guaranteed medical care for individuals, who are least able to afford medical treatment, etc. There also needs to be a legislative support to optimize infrastructure of the health and compulsory medical insurance system. In particular, the system should have a federal basis, but should act to increase responsibility of all regions for their own social development and should ensure responsiveness of the system to public health indicators.

Trends in the **Human Development Index (HDI) for Russian regions in 2005-2006** are analyzed in Chapter 10. In the mid-2000s, Russia became a country with a high level of human development, achieving an HDI score above 0.800.

The number of regions, where the index was at high levels, grew significantly – from 4 in 2004 to 12 in 2006, with Moscow moving ahead of Central & Eastern Europe. Most of the contribution to positive HDI dynamics was from rapid economic growth and appreciable increase of life expectancy. However, economic inequality between Russian regions is very great: of 80 regions, for which the Index has been calculated, only 13 have per capita gross regional product (GRP) higher than the average national level (including Tyumen Region, where HDI is four times higher than the national average, and Moscow, which is twice better off than the rest of Russian in this respect). Almost every fourth constituent entity of the Russian Federation has per capita GRP less than half of the national average.

Positive effects from tackling the most urgent health care issues only became visible in 2006, and mainly in parts of the country where these problems were most acute. Biggest increases of life expectancy were in regions, where the indicator had been lowest: in Eastern Siberia, in regions of the Center, where agriculture is not well developed, and in the North-West. So regions with largest growth of life expectancy achieved the largest HDI advances.

Territorial differences in human development remain great, but regional indexes grew relatively evenly in 2005-2006, without widening of the gap between leaders and outsiders, which was noted in earlier Reports. Thanks to more active government social policy, growing economic inequality between "strong" and "weak" regions was partially compensated by different geography of life expectancy improvements. In 2006, almost 30% of the Russian population was resident in regions with high HDI levels. This share has doubled since 2004. However, two thirds of Russia's people remain concentrated in below-average regions, and have limited human development prospects, while 6% of the population lives in the most problematic regions, where large-scale financial support from the federal government will remain necessary for a long time to come.

Chapter 10 also contains the first calculation ever made of the Gender-related Human Development Index (GDI) for Russia and its regions. The Index also takes into account influence of differences between men and women in basic HDI indicators that is (expected life span, literacy rate and access to education, and income). The income indicator takes account of differences between men and women with respect to salaries payable and levels of economic activity.

Chapter 1

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. Long-term 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 pre-war 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

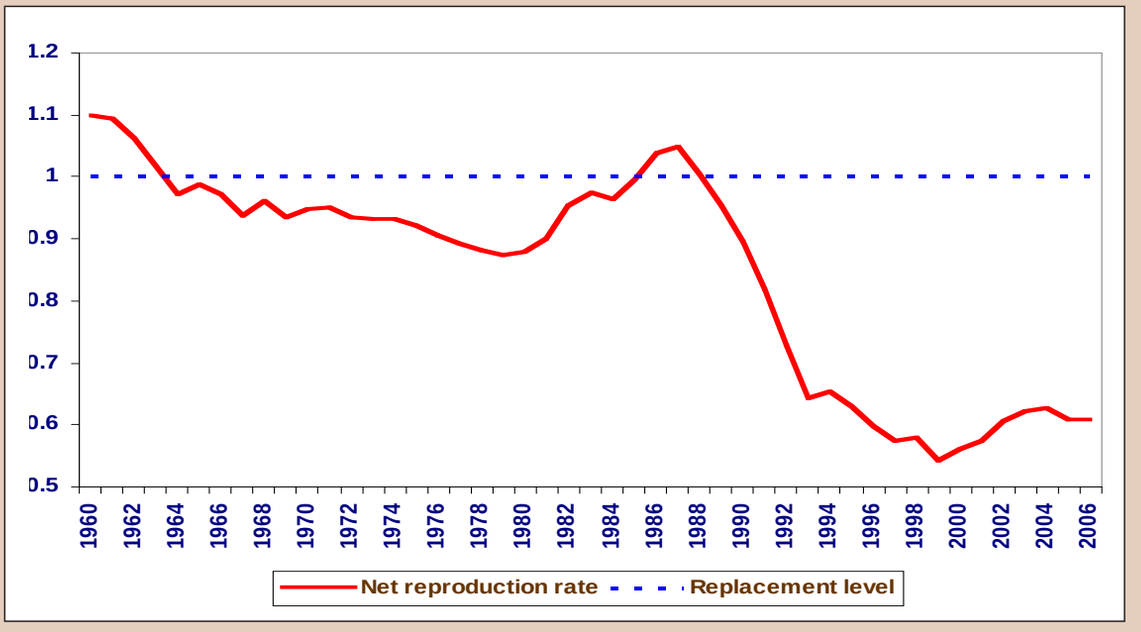

Figure 1.1. *The net reproduction rate in Russia has been below the replacement level since 1964*

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

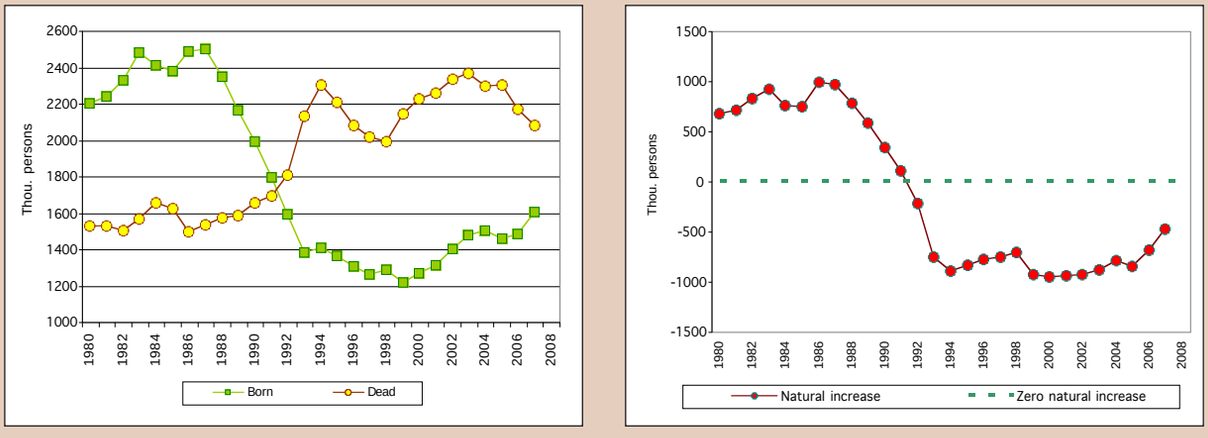

Figure 1.2. *In 1992 the number of births dropped below the number of deaths and natural increase of population became negative*

were 771 dependents (people below or above working age) per 1000 people of working age, while in 2006 there were only 580 per 1000, which is an all time low. The effect has been to reduce the need for social spending by the state: to the extent that is determined by demographic proportions, such spending has been as low as it can be.

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

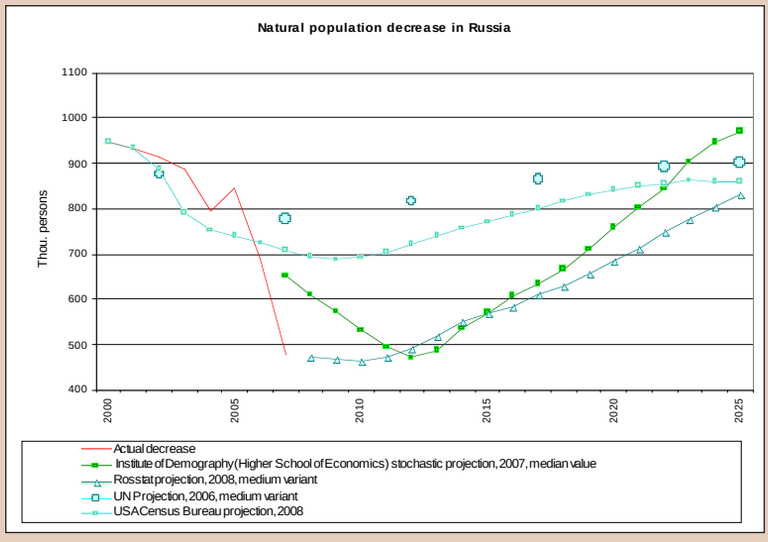

Figure 1.3. *All forecasts suggest that decline of natural population decrease is temporary and will be reversed in a few years time*

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 working-age 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).

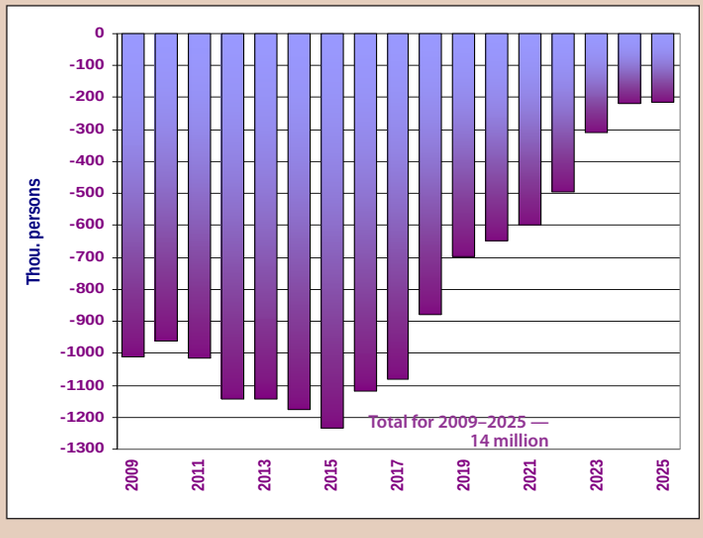

Figure 1.4. *Medium scenario of the Rosstat forecast predicts loss of 14 million population of working age in 2009-2025*

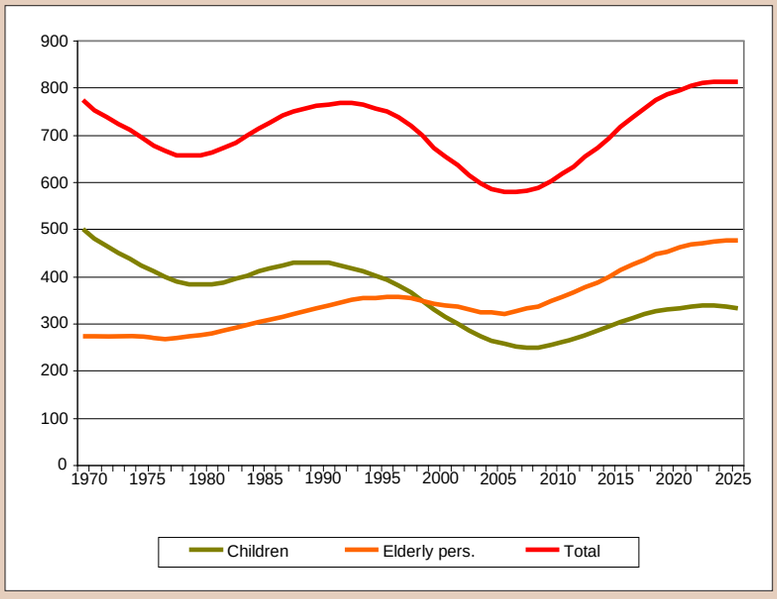

Figure 1.5. *Dependency ratio per 1000 persons of working age will increase consistently, and will exceed 800 per 1000 by 2025, according to the medium Rosstat forecast*

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, exceeding 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 children 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-

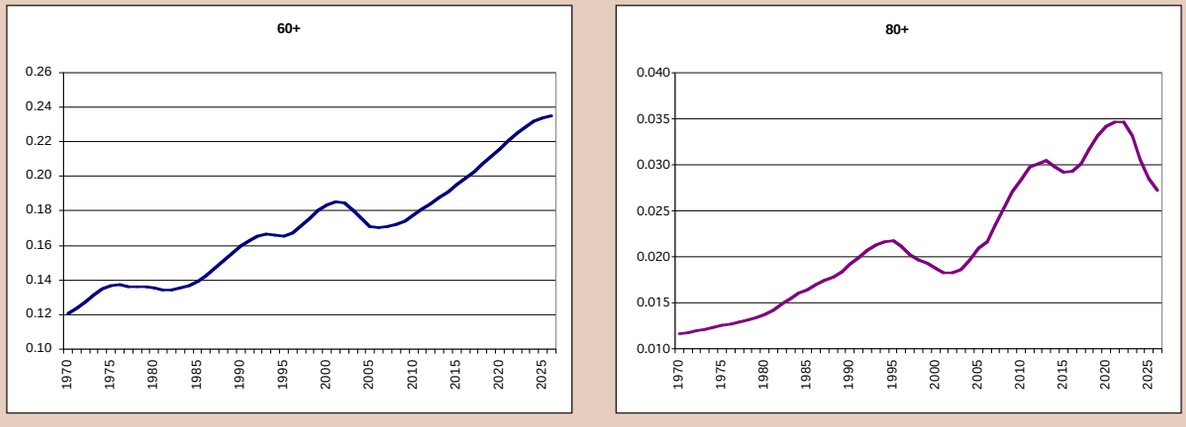

Figure 1.6. *Percentage of persons aged 60 and over in the Russian population will rise above 22% in the next 15 years, and percentage of those over 80 will be 3.5%.*

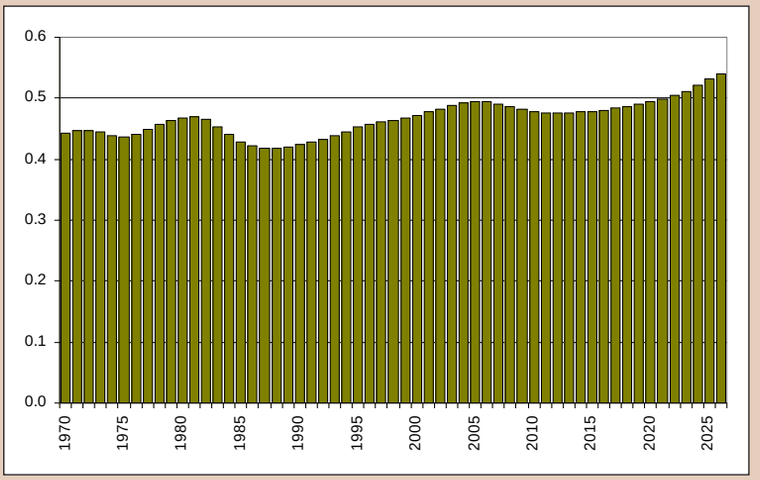

Figure 1.7. *Share of people aged 40-59 in total population aged between 20 and 59 will rise to 54% by 2026*

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)[1], 137.0 million (Rosstat, 2008)[2], and 138.1 million (median of the probabilistic projection by the Institute of Demography at the State University – Higher School of Economics)[3]. 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.

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 ethnic 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.

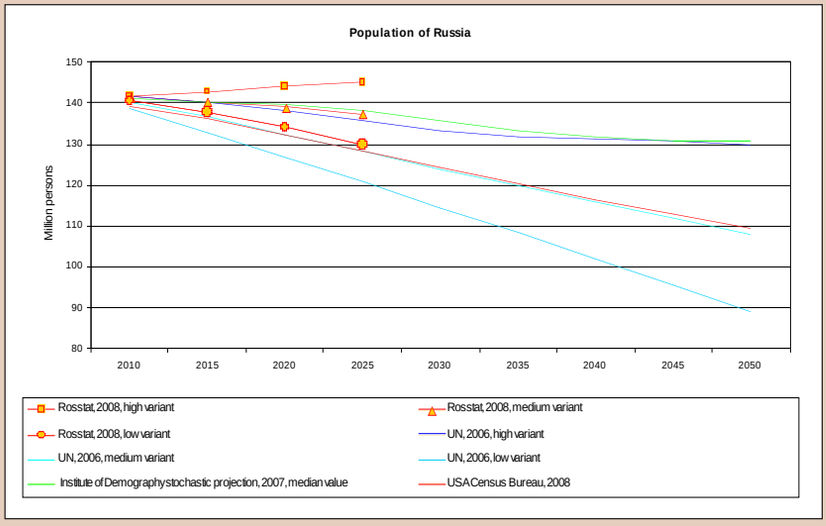

Figure 1.8. *Most forecasts are of further Russian population decline*

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.

* * * * *

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.

[1] 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.
[2] Hypothetical population of Russia up to 2025. Statistical Bulletin, M., Rosstat, 2008.
[3] Population of Russia 2006. Fourteenth annual demographical report, M., 2008.

Chapter 2

GROWTH OF FERTILITY: THE START OF A ROAD WITH DISTANT HORIZONS

2.1. Russia's low fertility goes back a long way

Birth-rate trends in Russia have long been similar to those in most industrially developed countries. Any major contrast between Russia and those countries had already faded by the post-war period (Figure 2.1).

In the 1960s Russia matched industrial countries by low fertility and even led the trend downwards, so that, by the end of the decade (1968) Russia's total fertility rate (TFR) was one of the lowest among 40 industrial countries: only the Czech Republic (then Czechoslovakia), Latvia, Ukraine (then a republic of the USSR) and Croatia (one of republics of Yugoslavia) had lower TFR than Russia. This list

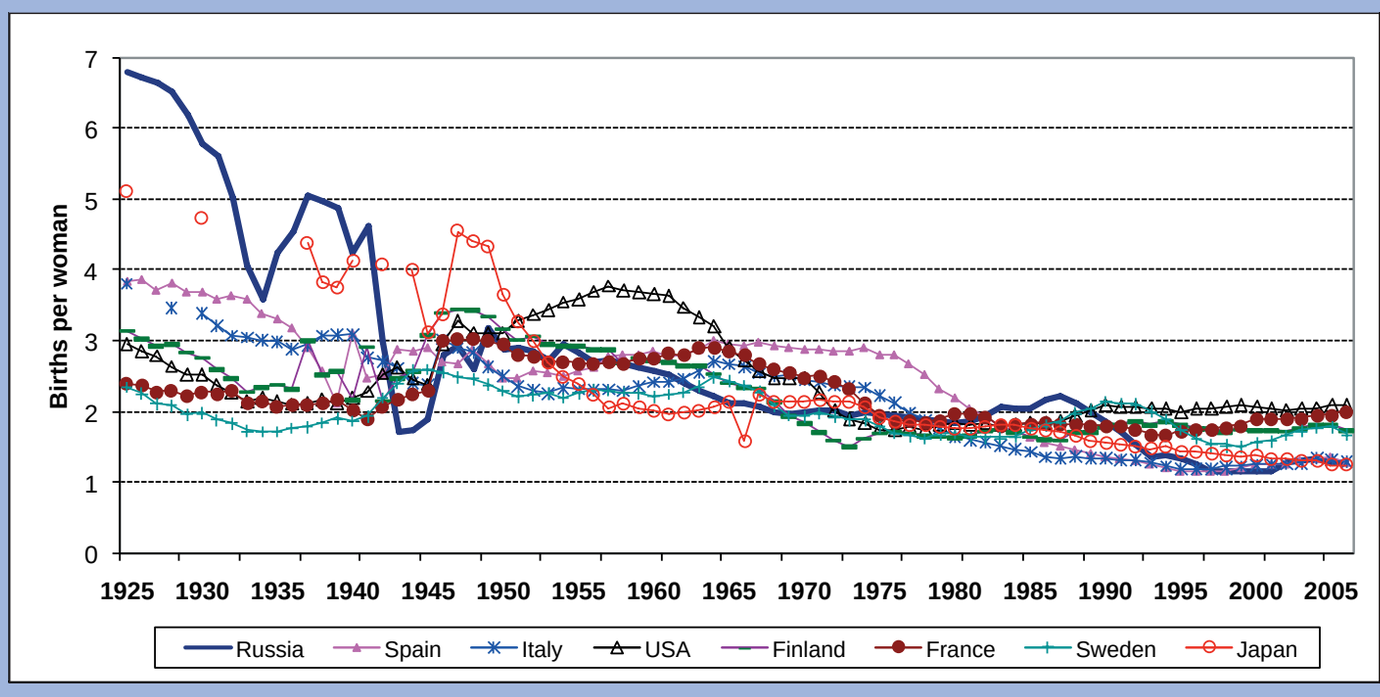

Figure 2.1. *Total Fertility Rate in several developed countries since 1925*

Source: Database of the Institute of Demography at the State University - Higher School of Economics (http://www.demoscope.ru)

should also include Hungary where TFR in 1962-1965 was the lowest in the world (1.8).

The picture changed to some extent thereafter. Decline of the fertility in Russia slowed down, while remaining brisk in many industrial countries. In the 1950-60s some industrial countries had much higher TFR than Russia, but that was no longer the case by the 1980s.

By 1980, when the TFR in Russia dropped to 1.86 (its lowest level in the whole period before 1991), 13 countries in the world (of those, which are now sovereign states) had even lower fertlility than Russia. They were: Denmark (1.55), Switzerland (1.55), Germany (Federal Republic of Germany, 1.45), the Netherlands (1.60), Finland (1.63), Italy (1.64), Austria (1.65), Canada (1.67), Sweden (1.68), Belgium (1.68), Norway (1.72), Japan (1.75), and the USA (1.84).

This was followed by a short-term increase of birth rates, conditioned by demographic policy of the 1980s, by the anti-alcohol campaign and by optimistic expectations during the first years of Perestroika. The high point of this increase came in 1987, when the TFR touched 2.23, putting Russia among developed countries with highest rates. Of 40 such countries, only Estonia, Macedonia, Ireland, Romania and Moldova achieved higher rates in 1987.

The period from the end of the 1960s to the end of the 1980s was generally more favorable for Russia in terms of birth rate dynamics than for the majority of European countries, USA or Japan. But high birth rates of the mid-1980s were short-lived. By the end of the 1980s Russia had dropped back into the group of countries with lowest fertility (the number of countries in this group had sharply increased in the meantime).

The steepest decline occurred in 1999, when the TFR was 1.16. Some increase was seen up to 2004, followed by a dip in 2005 before growth resumed in 2006-2007.

Both urban and rural areas saw TFR increase in 1999-2004, although it was more pronounced in cities: the overall increase was 0.18 child per woman, but it was 0.21 in urban areas and only 0.13 in rural areas. The drop in 2005 was somewhat steeper in the country than in cities, but growth in 2006 was seen only in rural areas. In any case, these fluctuations did not detract from a long-term converging trend between urban and rural areas (Figure 2.2). In the 1960s a woman in the countryside gave birth to 60-70% more children than a city woman, in the 1980s the difference was 50-60%, and it declined to 30-40% in the current decade.

Despite some fluctuation of fertility in the early 1990s, Russia remains in a group of countries with the lowest rates. In 1995 the total fertility rate was 1.34 and the country ranked 31st-32nd among 40 industrially developed countries. In 2006 the rate was 1.3, putting Russia in 27th place (Figure 2.3).

To stop loss of population at current mortality rates, fertility needs to be kept at a level of 2.1. As seen in the diagram, only the USA (2.09) and France (1.99) come closest to this target.

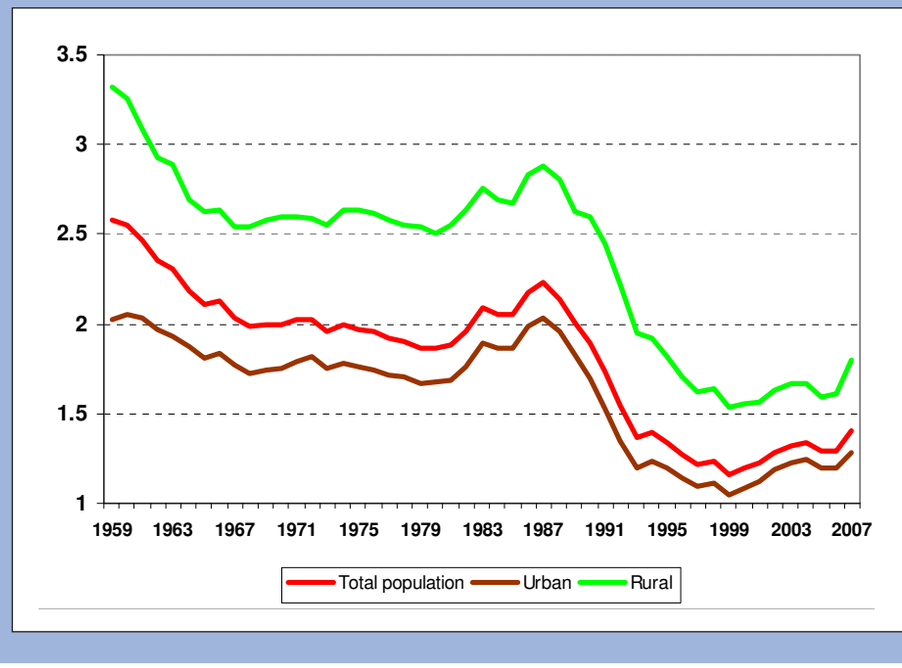

Figure 2.2. *Total Fertility Rate in Russia: total, urban, and rural population, 1959-2007*

Box 2.1. Regional variety in fertility

Russia's regions have varied fertility, but the differences are not as great as is often believed and they are steadily diminishing. Over the last 50 years Russia has become more homogeneous in terms of interregional differentiation of the TFR (by almost two times in relative terms). There was a temporary accentuation of territorial differences at the end of the 1980s and start of the 1990s, when fertility was in rapid decline, but the long-term convergence resumed thereafter. Declining fertility in Buryatia, Kabardino-Balkaria, North-Ossetia, Karachayevo-Cherkessia and Tyva have played an important role in this process of leveling.

Figure 2A shows distribution of subjects of the Federation by TFR in 1990 and 2006. Overall decline and increase of peakedness illustrate the leveling of differences between rates in Russian regions. Chechnya shows the highest TFR at present – 2.77 births per woman, as reported by official statistics in 2006 (though quality of recording in Chechnya is uncertain). The autonomous districts of Evenkia, Ust-Ordyn Buryat, Agin Buryat, Chukotka and Tyva come next with rates of 2.1, which just ensures replacement levels in these regions. The next specific group with coefficients in an interval of 1.6-1.9 includes 10 regions: autonomous districts and republics of Siberia, North Caucasus, Kalmykia, Komi-Permyak District (except Kabardino-Balkaria, North-Ossetia, Karachayevo-Cherkessia, Khakassia and the Jewish Autonomous District where the TFR is significantly lower). Russian national TFR is determined by 50 regions of Russia where rates vary from 1.2 to 1.3. Leningrad, Tula, Saratov, Voronezh, Tambov regions, Mordovia and St. Petersburg city have lowest rates (1.15 max. in 2006).

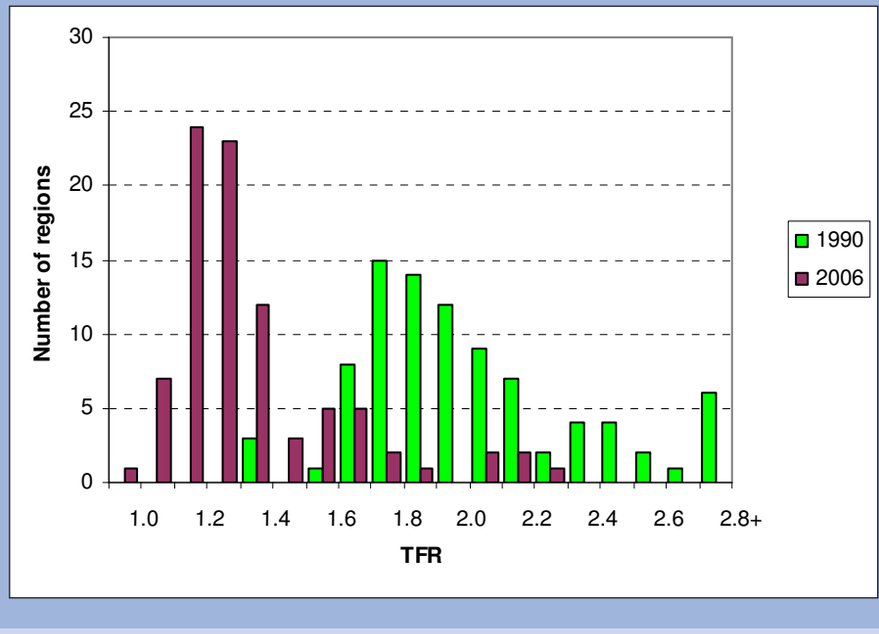

Figure 2.A. *Distribution of 88 Russian regions by total fertility rates in 1990 and 2006*

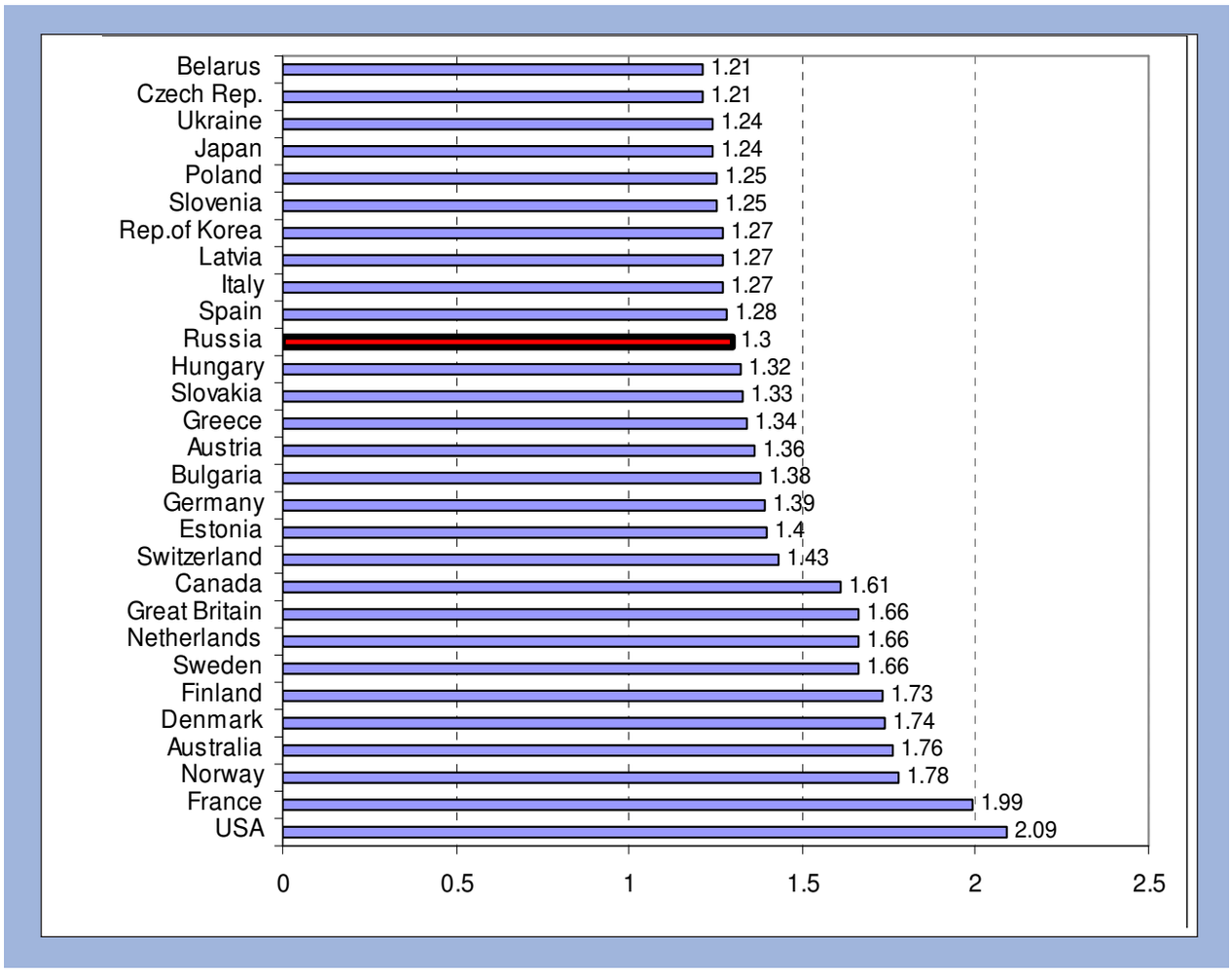

Figure 2.3. *Total fertility rate in several industrial countries in 2006.*
Source: Database of the Institute of Demography at the State University - Higher School of Economics (http://www.demoscope.ru)

2.2. What does real female cohort fertility tell us?

The total fertility rate is an important index for tracing current changes in fertility, but it is not a perfect tool. It uses the concept of a "hypothetical (synthetic) generation", which represents a very convenient model of reality but not the reality itself. Society is naturally more interested in the number of children born by each real generation of women. The model of a hypothetical generation allows assessment of the current demographic situation without the need to wait until all real generations, participating in childbearing over a given period of time (for example, this year), rise above reproductive age. But this model does not give complete knowledge about the ultimate fertliliy of real generations. Paying too much attention to such indexes as period TFR and net reproduction rate of population can lead to serious mistakes in estimation of actual fertility trends.

At present we have full data for numbers of children actually born to cohorts of women, who were themselves born in the 1950s and earlier. Estimates of expected fertility for cohorts born in the 1960s and now completing their reproductive biography are also very reliable. International comparisons show a common trend towards decline of completed cohort fertility in all industrially developed urbanized countries. These countries are all falling gradually below the limit of replacement of generations, and Russia is leading the way (Figure 2.4)

Only preliminary estimates are possible for younger cohorts of women, born in the second part of the 1970s and the 1980s and now of active reproductive age.

Such estimates are usually obtained by summarizing the number of children already born by each generation of women at the time of observation with the number of births expected in case an average woman from the current generation has the same birth rates at later ages as was demonstrated in

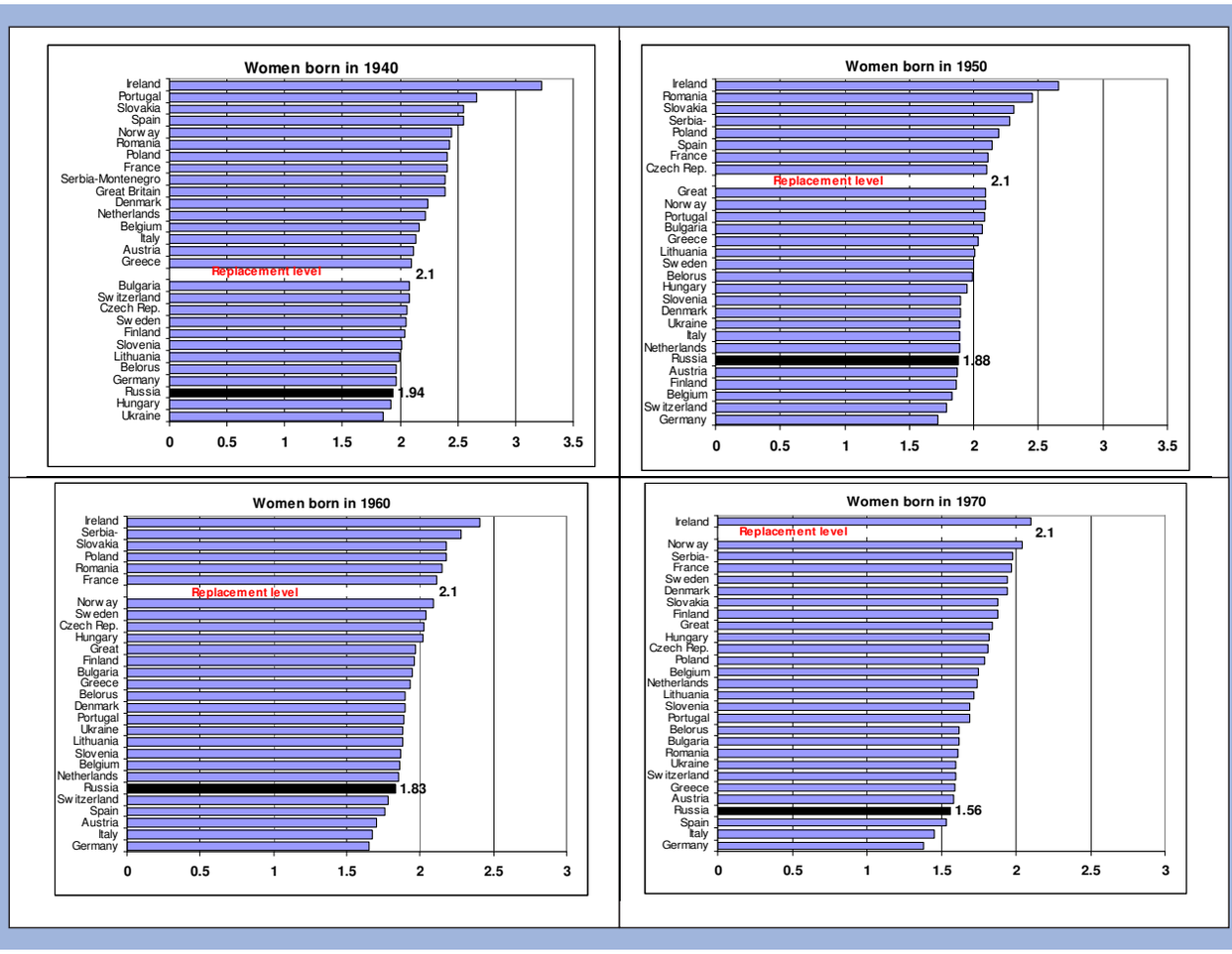

Figure 2.4. *Completed fertility for generations of women born in 1940, 1950, 1960 and 1970: selected European countries.*

Source: Recent Demographic Developments in Europe 2005. Council of Europe, 2006.
For 1970 are provisional estimates.

the year of observation by women who had reached those ages. For generations of women aged 15 in the year of observation, the estimate of ultimate fertility is based on the "expected" component and coincides fully with usual TFR for hypothetical generations. In the course of transition to older generations the value of the "expected" component declines and the actual birth rates play an increasing role.

Since age-specific birth rates change year by year, estimates of "actual" and "expected" components of completed fertility for one and the same generation and (consequently) their overall value can also change. In modern Russia, where there is currently an increase of birth rates in groups of women aged over 25 and even over 35 and so long as this increase continues to be observed, estimates of completed fertility may be reviewed upwards each year, not only for the youngest generations but also for older cohorts.

Table 2.1 shows estimates of completed fertility for the post-war generations. These estimates are based on retrospective data limited by the year 1999 (the year in which the current birth rate was at its minimum level) and respective estimates for the same generations, obtained 7 years later, after several years of birth-rates' increase (the last data are for 2006). It is evident that the cohort completed fertility of women born in 1950 (1.88 child per woman) did not change – these generations were already close to leaving reproductive age and have left it today. Values for generations born in the first half of the 1960s have changed very slightly – from 1.75 to 1.76, – but the increase of fertility in previous years is appreciable for cohorts from the second half of the 1960s – they gained from giving birth at later ages and estimate of their ultimate fertility rose above 1.6 children (to 1.63 from 1.58). Expected values for generations born in the 1970s also have to be reviewed. As compared with estimates based on data accumulated by 2000, the later estimates give an increase of 0.1-0.2 children per woman. But, even taking this increase into ac-

Table 2.1. *Actual and prospective completed fertility of generations of Russian women born in 1950-1984*

Birth cohort of women	Estimate based on 1999 data	Estimate based on 2006 data			
		Children actually born per woman by 2007	Expected births in addition to children already born	Total number of births	Difference between 1999 and 2006 estimates
1950-1954	1.88	1.88	0.00	1.88	0.00
1955-1959	1.88	1.88	0.00	1.88	0.00
1960-1964	1.75	1.76	0.00	1.76	0.01
1965-1969	1.58	1.60	0.03	1.63	0.05
1970-1974	1.40	1.39	0.13	1.52	0.12
1975-1979	1.23	1.05	0.38	1.43	0.20
1980-1984	1.16	0.55	0.78	1.33	0.16

Source: Calculations by S. Zakharov using 1979 and 1989 population census data and age-specific fertility rates in 1979-2006.

count, the final number of births for these generations continues to decline. Only further increase of the birth rate at ages over 30 can stop the shrinkage – in this case each woman born after 1970 will have 1.5-1.6 children on average.

If we suppose that women born in 1975-1979 and aged 27-31 years in 2006 have given birth to 1.05 child each on average, then, if until the end of their reproductive age they have the same age-specific fertility rates as women who are now 27-31 years old, then the final average number of births for these women will be 1.43 maximum. In order to stand a chance of slowing down and even stopping the decline of fertility from generation to generation, they would have to surpass women of previous generations in terms of completed fertility.

If age-related childbearing intensity at ages over 25 remains at the level of 2004-2006 or declines, then the completed fertility trend will again decrease and generations of the first half of the 1980s (now aged about 25) will bear in average about 1.3-1.4 children by 2035.

Based on trends observed up to 2007, it looks reasonable to expect further decline in fertility of real generations rather than increase. Stabilization of completed cohort fertility at a level of 1.5-1.6 is the best we can expect.

Is it possible to influence these trends and to change them in a way that ensures increase of fertility at least to the replacement level of real generations?

2.3. Potential and limitations of pronatalist policy

Concerns in Russian society and the political elite about population decline led to preparation in 2006-2007 of a new version of the government's demographic development concept, entitled "Concept for demographic policy of the Russian Federation in the period until 2025"[1]. Evidently, the new Concept will replace the previous one[2], although the latter has not yet elapsed.

Concerning the fertility, the new Concept differs from the previous one in two specific ways: (a) it offers target reference points expressed as values of the TFR, which should increase by 1.3 times from 2006 to 2016 and by 1.5 times to 2026 (respectively to 1.7 in 2015 and 1.95 in 2025); (b) by emphasizing importance of "the institution of the family, restoration and preservation of moral and ethical family relationships".

Measures for stimulating fertility, envisaged in the previous Concept, consisted of improving and, to some extent, increasing financial support for the allowance system, which dates from the 1980s, development of a system of payments related to birth and education of children, provision of family needs for pre-school education services, increase of living space for families with children, etc. The new Concept repeats these proposals, but it also adds a new measure, which is treated as central to the strategy for stimulating birth rates – provision of "maternity (family) capital"[3].

2.3.1. Existing ratios predetermine fertility far into the future

We will begin by examining achievability of targets set out in the new Concept.

The new measures were introduced on January 1, 2007 and since then, Russian society has fixed its attention on the rising trend in absolute numbers of births. In fact, the number of births was already increasing from 2000 (though with interruptions). The increase in 2006 was 22,000 births. The increase was determined mainly by a structural factor – the number of women at peak reproductive age (under 30) was in a growth phase. In fact, this increase was only an "echo" of a birth-rate increase in the 1970s and 1980s, when the present generation of parents was born (Figure 2.5). Influence of age-specific fertility rates in 2006 as compared with the previous year was positive but weak – it was twice less significant than the structural factor.

In 2007 the number of births increased much more strongly, by 130,500 or 8.8% compared with the previous year. According to preliminary estimates, favorable influence of the age structure explains only 1% of this increase. Increase of fertility itself (intensity of childbearing) played the most important role. This can be considered a success, but the question is whether it will be possible to follow up this result and, most importantly, whether the development reflects real change in people's behavior or is only a fluctuation of the "birth calendar", observed in many countries after introduction of measures to stimulate the birth rate, but hardly ever leading to an increase of fertility in terms of real generations.

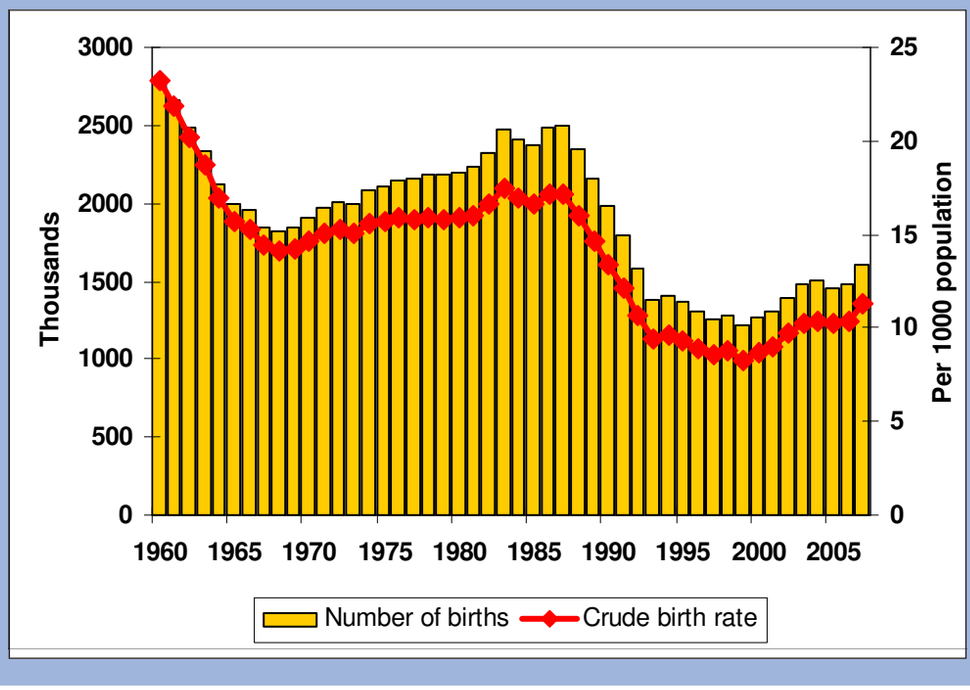

Figure 2.5. *Number of live births and crude birth rate: Russia, 1960-2007*

Demographers fear that, even if the total fertility rate for hypothetical generations increases for a time, it will decline again, as has happened in nearly all countries, which have introduced measures to stimulate fertility.

However, let us assume that a miracle happens and Russia manages to avoid a subsequent drop, instead achieving steady growth of the TFR to 1.95 by 2025, as envisaged by the Concept, and to 2.11-2.12 (population replacement level) by the year 2030. Will this solve Russia's fertility problem?

It should be remembered that this is a problem of actual generations of women, who have not been reproducing themselves starting with generations, born after 1910 and entering into active reproduction age from the end of the 1920s. They fully replaced previous generations of mothers by the end of the 1950s, which is when the next stage of rapid decline of the TFR began (TFR as period measure always reflects reproductive behavior of a mixture of 25-30 individual years of age generations, living at the same time). What will happen to completed fertility of real generations if the TFR target in the Concept is achieved?

The answer depends, to a certain extent, on changes in the age-specific fertility curve. One and the same result – 1.95 births on average per woman from a hypothetical generation – can be achieved with different age distributions of births per mother. It can be achieved, for example, by increasing the birth rates in each age group of women in equal proportions (proportional increase). But it was also achieved at a "younger" fertility profile in Russia in 1973 and at an "older" fertlity profile in Sweden in 1986 (Figure 2.6).

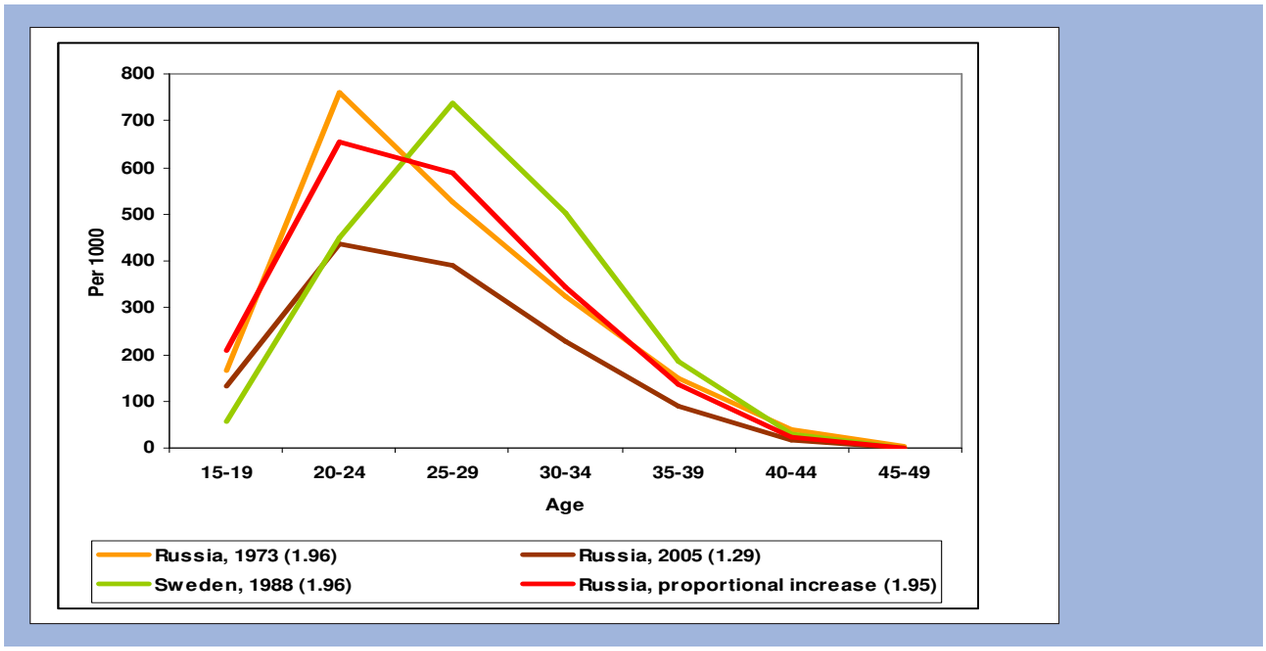

Figure 2.6. *Age-specific fertility rates (sum of one-year age-rates by five-year age- group) – actual in Russia in 1973, in 2005 and possible in case the same TFR level is maintained (in brackets), per 1000 women*

Table 2.2a. *Completed fertility of hypothetical and real generations with proportional increase of 2005 age-specific fertility rates*

Birth cohort of women	Year of observation	Live births per 1000 women aged:							Completed fertility by age of 50	
		15-19	20-24	25-29	30-34	35-39	40-44	45+	of real generation	of hypothetical generation (TFR)
1	2	3	4	5	6	7	8	9	10	11
1941-1945	1960	123	792	773	497	268	94	14		**2.56**
1946-1950	1965	154	712	606	387	190	61	8		**2.12**
1951-1955	1970	152	758	538	341	163	43	5		2.00
1956-1960	1975	177	783	537	299	138	37	3		**1.97**
1961-1965	1980	205	786	501	252	96	24	2		**1.87**
1966-1970	1985	232	828	564	296	111	21	1		**2.05**
1971-1975	1990	283	790	475	241	96	19	1		**1.91**
1976-1980	1995	226	563	335	152	53	11	1	**1.79**	**1.34**
1981-1985	2000	141	477	344	180	60	12	1	**1.83**	**1.21**
1986-1990	2005	138	434	390	228	89	15	1	**1.84**	**1.29**
1991-1995	2010	*160*	503	452	264	103	17	1	**1.83**	**1.50**
1996-2000	2015	*181*	*570*	512	299	117	20	1	**1.74**	**1.70**
2001-2005	2020	*197*	*621*	*557*	325	127	21	1	***1.64***	**1.85**
2006-2010	2025	*208*	*654*	*587*	*343*	134	23	1	***1.54***	**1.95**
2011-2015	2030	*225*	*708*	*635*	*371*	*145*	24	1	***1.50***	**2.11**
2016-2020	2035					*145*	*24*	*1*	***1.48***	
2021-2025	2040						*24*	*1*	***1.64***	
2026-2030	2045							*1*	***1.80***	
2031-2035	2050								1.93	

Note to Tables 2.2a, 2.2b and 2.2c. Figures in column 10 represent the diagonal sum of numbers in columns 3-9 (highlighted in the same color) divided by 1000. Values in column 11 (TFR) are the sum of the numbers in rows, also divided by 1000. The TFR for 2025, envisaged by the Concept (1.95), is achieved in 2015 and by 2030, growing at the same rate, it approaches the replacement level (2.11-2.12). It is assumed that the TFR for ages 35 and over remains stable after 2030.

Table 2.2b. *Completed fertility of hypothetical and real generations assuming gradual return by 2025 to the Russian age model of 1973.*

Birth cohort of women	Year of observation	Live births per 1000 women aged:							Completed fertility by age of 50	
		15-19	20-24	25-29	30-34	35-39	40-44	45+	of real generation	of hypothetical generation (TFR)
1	2	3	4	5	6	7	8	9	10	11
1941-1945	1960	123	792	773	497	268	94	14		2.56
1946-1950	1965	154	712	606	387	190	61	8		2.12
1951-1955	1970	152	758	538	341	163	43	5		2.00
1956-1960	1975	177	783	537	299	138	37	3		1.97
1961-1965	1980	205	786	501	252	96	24	2		1.87
1966-1970	1985	232	828	564	296	111	21	1		2.05
1971-1975	1990	283	790	475	241	96	19	1		1.91
1976-1980	1995	226	563	335	152	53	11	1	1.79	1.34
1981-1985	2000	141	477	344	180	60	12	1	1.83	1.21
1986-1990	2005	138	434	390	228	89	15	1	1.84	1.29
1991-1995	2010	144	513	422	251	104	21	1	1.83	1.46
1996-2000	2015	149	592	455	275	120	27	2	1.74	1.62
2001-2005	2020	155	671	487	299	135	33	2	1.65	1.78
2006-2010	2025	160	750	520	323	150	39	3	1.55	1.95
2011-2015	2030	166	829	553	347	166	45	3	1.50	2.11
2016-2020	2035					166	45	3	1.45	
2021-2025	2040						45	3	1.60	
2026-2030	2045							3	1.76	
2031-2035	2050								1.90	

From the point of view of achievement of the final index, targeted by the Russian government Concept, all three variants of age distribution dynamics are equal. But they are not equal in terms of changing completed fertility of real birth cohorts of women, since many generations have passed various parts of their reproductive cycle and influence upon their behavior is only possible at later parts of the cycle.

We will examine three models, presented in Figure 2.6, in more detail (Tables 2.2a, 2.2b, 2.2c and Figure 2.7).

The main conclusion is as follows: even if the situation develops in the most favorable way possible, only generations of women, born in the last 5 years of the previous century and entering reproductive age in about 2015, can approach a level of completed cohort fertility which ensures population replacement. Growth of the completed fertility could start earlier and be more significant if distribution of births by age shifts to a Swedish model (births at later ages).

In theory such a development is quite possible. As seen in Table 2.2c, this shift would push the number of births by mothers aged 35-39 up to 208 per 1000 women of this age, which is the level observed in Russia in 1963 (it was even higher previously). The same and even higher levels of fertility at this age are observed in many European countries and in the USA at present (the USA also maintains a fairly high level of fertility at ages below 25). So development of the "Swedish model" for increase in total fertility is theoretically quite possible.

However, as can be seen in Table. 2.2, even if this optimistic variant is realized, it will give results only in generations of women born after 1990. Earlier generations either have no reserves for increase of total fertility or their reserves are very insignificant. Only women born in the 1990s can react in full to policy measures for stimulation of the fertility. Women born in 1995 will enter their active reproductive period after 2015 and, if the situation develops favorably, their completed fertility will exceed 1.8 or even 1.9 children per woman. But that is only possible if demographic policy with respect to childbearing shows high efficiency for at least two decades and includes measures, which have appeal for women over 25 and, particularly, for women over 30.

Table 2.2c. *Completed fertility for real and hypothetical generations assuming gradual shift to Swedish age model by 2025*

Birth cohort of women	Year of observation	Live births per 1000 women aged:							Completed fertility by age of 50	
		15-19	20-24	25-29	30-34	35-39	40-44	45+	of real generation	of hypothetical Generation (TFR)
1	2	3	4	5	6	7	8	9	10	11
1941-1945	1960	123	792	773	497	268	94	14		2.56
1946-1950	1965	154	712	606	387	190	61	8		2.12
1951-1955	1970	152	758	538	341	163	43	5		2.00
1956-1960	1975	177	783	537	299	138	37	3		1.97
1961-1965	1980	205	786	501	252	96	24	2		1.87
1966-1970	1985	232	828	564	296	111	21	1		2.05
1971-1975	1990	283	790	475	241	96	19	1		1.91
1976-1980	1995	226	563	335	152	53	11	1	1.79	1.34
1981-1985	2000	141	477	344	180	60	12	1	1.83	1.21
1986-1990	2005	138	434	390	228	89	15	1	1.84	1.29
1991-1995	2010	118	438	475	296	113	19	1	1.83	1.46
1996-2000	2015	98	442	560	364	136	23	1	1.74	1.62
2001-2005	2020	78	446	645	432	160	26	1	1.65	1.79
2006-2010	2025	57	450	730	500	184	30	1	1.55	1.95
2011-2015	2030	37	454	815	568	208	34	1	1.55	2.12
2016-2020	2035					208	34	1	1.60	
2021-2025	2040						34	1	1.79	
2026-2030	2045							1	1.95	
2031-2035	2050								2.08	

Figure 2.7 summarizes the main results of calculations, presented in Table 2.2.

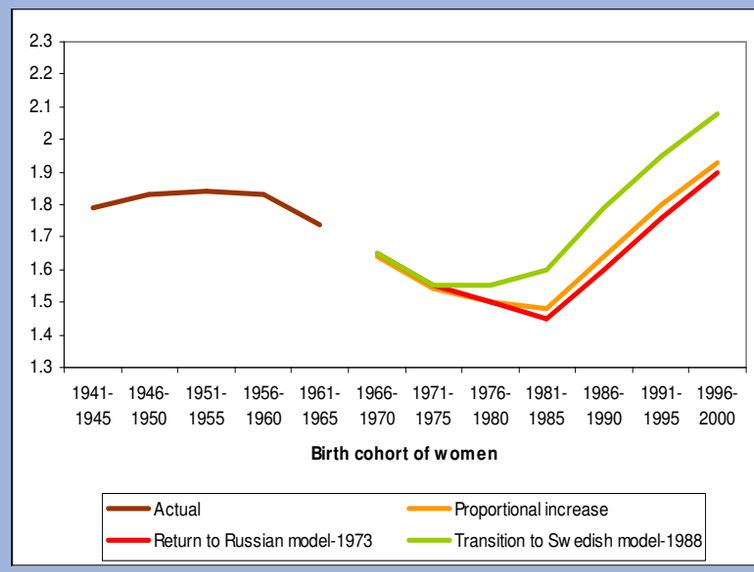

Figure 2.7. *Completed fertility for real generations of Russian women. Actual for generations born in 1941-1965 and expected assuming that levels, envisaged by the Concept for Demographic Policy, are achieved. For the three age models of fertility.*

Also, when assessing the prospects for Russia's demographic crisis, it should be noted that, although generations of the 1990s have an opportunity to improve the fertility situation, these generations are very small and their absolute contribution to the total number of births, even at higher fertility rates, cannot be large.

2.3.2. Reproductive intentions of Russians have not changed

Likely outcomes of Russia's family-related demographic policy, following its renewal in 2007, can also be viewed under another aspect – by considering the stance of public opinion and its readiness to react in some way to new political measures. Results of a poll, carried out in the framework of the second wave of the research programme, "Parents and Children, Men and Women"/Russian GGS[4] (2007), suggest that government measures to strengthen family policy are highly appreciated by the Russian general public. About half of all respondents believe that introduction of "maternity capital" and increase of all types of allowances are very important factors for decisions about having children. Development of a network of pre-school institutions and improvement of school schedules are also very popular measures. Working part-time or flexitime and use of baby-sitter services are regarded as less important (they are viewed as important by 30-40% of respondents).

However, despite high praise for the policy as a whole, answers to the question, "How will the measures introduced in 2007 influence your behavior as regards having children", afford little ground for optimism (Table 2.3). Few respondents are prepared to act on the government's measures to stimulate fertility. The answer, "We will certainly have more children than we planned before", was given by only 1% of respondents, while 81% of respondents believe that the measures will not affect their own behavior and they will keep to their previous plans. 10% of respondents now intend to have children earlier than they had planned before, but to have the same final number of offspring. All this confirms high probability of shifts in the birth timing without any significant increase in the final number of children born in families. That will entail inevitable decline of annual birth rates after a short-lived "baby-boom".

Comparison of results of the surveys, conducted in 2004 and 2007, concerning intention of respondents to have a child (or another child) in the coming three years gives cause for concern. There are no noticeable changes of intention, except for a modest increase of optimism among men and women aged 30 years about prospects for enlargement of their family (Table 2.4).

It is quite possible that a steady period of attention by the government to family issues will cause people's expectations to become more optimistic, but the new policy has not yet produced any changes in people's reproductive intentions and there are no grounds for expecting any significant demographic effect from the policy.

2.3.3. Are traditional values important?

Self-realization of modern men and women occurs in two competing spheres: career and family. More successful workers (usually more educated and well-qualified) often have lower fertility, while a parent who is successful in bearing several children often has a price to pay in terms of career and income level. This dilemma is resolved at the level of the individual and family in a variety of specific situations, depending on personal value systems. Government policy for stimulation of fertility will be more efficient if it can take full account of the diversity of people's life styles and interests in different social strata. But success of family policy as a policy for harmonizing interests is very difficult to achieve.

It is axiomatic that a policy, which tries to influence fertility by financial and other inducements, is less efficient than a policy oriented to freedom of choice with respect to childbearing and with respect to career and employment of both parents.

The new Russian Concept, like previous official documents on family policy, shows only partial understanding of this central issue. It declares the need to enlarge the network of pre-school institutions and introduction of flexible employment for women, but no definite aims in this direction are presented (in contrast with the very precise goals for demographic indicators). As in previous policy documents, these measures are treated as secondary. But the experience of France and some Nordic countries shows that emphasis on maximizing ability of women to stay on the labor market through the whole period of child rearing, with minimum losses to the quality of child rearing, gives the best, long-term results with respect to fertility.

In any case, comparison of family policies in different countries shows that reinforcement of gender inequality in modern society and an aspiration to preserve traditional gender roles in the

family and society, which is discernible in the new Concept (“ to revive traditional family values”), will tend to ensure that fertility stays consistently very low.

2.3.4. Financial support to families with children is no guarantee of success

The fact that, in a context of economic growth in Russia, the state is willing and has financial means to support family policy should be welcomed. Financial support for such policy has always been insufficient, and family allowances lost nearly all of their value in the 1990s. As discussed in Chapter 7 below, the share of GDP spent to support families with children is much lower than in developed European countries. Taking account of differences in GDP, the gap between spending per capita in absolute figures in Russia and these countries is even larger.

The new element in Russian demographic policy – the provision of “maternity capital” – has now

Table 2.3. *Distribution of answers to the question “How will measures introduced in 2007 influence your behavior?” (the survey was conducted in spring-summer 2007).*

	%
We will have as many children as we planned to have before, but earlier than we had planned	10
We will possibly have more children than we planned before	8
We will surely have more children than we planned before	1
No effect: we will follow our previous plans for having children	81
	100

Source: Author’s calculations based on data of the second wave of the Russian GGS (2007).

Table 2.4. *Distribution of answers by men and women of different ages to the question: “Do you plan to have a child (another child) in the coming three years?” Surveys of 2004 and 2007, %*

Age	Men				Women			
	Definitely not	Probably not	Probably yes	Definitely yes	Definitely not	Probably not	Probably yes	Definitely yes
	Опрос 2004 г.							
18-19	58	30	9	4	42	37	14	5
20-24	34	29	23	13	24	25	34	16
25-29	24	23	33	19	29	23	28	17
30-34	32	24	33	10	49	23	20	7
35-39	54	22	18	4	68	22	7	3
40-44	71	18	7	3	83	11	4	1
45-49	79	15	3	1	92	6	1	1
18-49	49	23	19	8	57	19	15	7
	Survey 2007 (after introduction of measures in the 2007 Concept)							
18-19	69	23	5	3	47	31	15	6
20-24	35	34	21	11	22	30	33	14
25-29	19	22	41	17	31	26	30	14
30-34	34	28	27	11	38	28	26	8
35-39	48	31	17	5	65	21	11	3
40-44	71	20	7	2	83	13	3	1
45-49	84	11	4	1	93	6	1	1
18-49	50	25	18	7	57	21	16	6

Note: The sum of lines for each sex and for each age group may differ from 100% due to persons who refused to answer the question (such persons were about 1% of the total on average).
Source: Author’s calculations based on data of the first (2004) and the second (2007) waves of the Russian GGS.

become part of the whole system of domestic demographic policy. This "capital" a typical one-off premium payment. In Russia it is hoped that the payment will bring a large demographic dividend. But international experts regard such payments as least efficient from the point of view of long-term influence on fertility. Such measures usually cause only short-term surges and shifts in the timing of births – larger or smaller depending on size of the premium, – but have zero potential for stimulating higher cohort fertility quantum and increasing the number of wanted children. Regular increase of the payout size in order to keep it attractive, is not sustainable, since there is a limit to what the government can afford. Also, experts emphasize that any upsurge of fertility rates in reaction to this sort of incentive tend to be focused at the lower end of the social spectrum, entailing further aggravation of poverty problems.

So, while the government's plans to increase spending on families with children are laudable, it is unrealistic to expect that realization of these plans will lead to the desired growth of fertility.

Family allowances play a certain role in leveling inequalities between families from different social strata and, as a consequence, in leveling initial opportunities for children. This function of allowances is very important in Russia as well. But, in all countries, the relative leveling of start-up conditions is achieved, not only through direct financial support, but through the state system of education, health care, etc. Compensation by government of decline in family income due to birth of a child can never be complete and is not intended to be – not only because capacity of the state budget is limited and excessive increase of tax levels is undesirable, but also because large compensation would reduce need for earned income and thus undermine labor motivations in society.

Experience worldwide shows that family allowances, whatever their form and size, have never been successful in effecting major changes of ultimate cohort fertility. Fertlity level in the modern world has only a weak connection (if any connection) with economic wealth of society and redistribution of this wealth in favor of families with children.

Figure 2.8 shows a comparison of relative expenditures on family policy (as % of GDP) in developed countries over the last twenty years with their fertlity. Difference in expenditures is huge, but difference in the TFR is very modest and does not correlate with budget spending on the family. There is also no correlation between the TFR and GDP per capita (Figure 2.9).

It is unlikely that the new Russian government policy for stimulating fertility will prove efficient in the long run, since it is inadequately designed, imbalanced and overestimates the importance of financial incentives. Increase of allowances to families with children will not compensate the costs of raising children, particularly in conditions when demand for labor (including female labor) is growing fast and standards of mass consumption are rising.

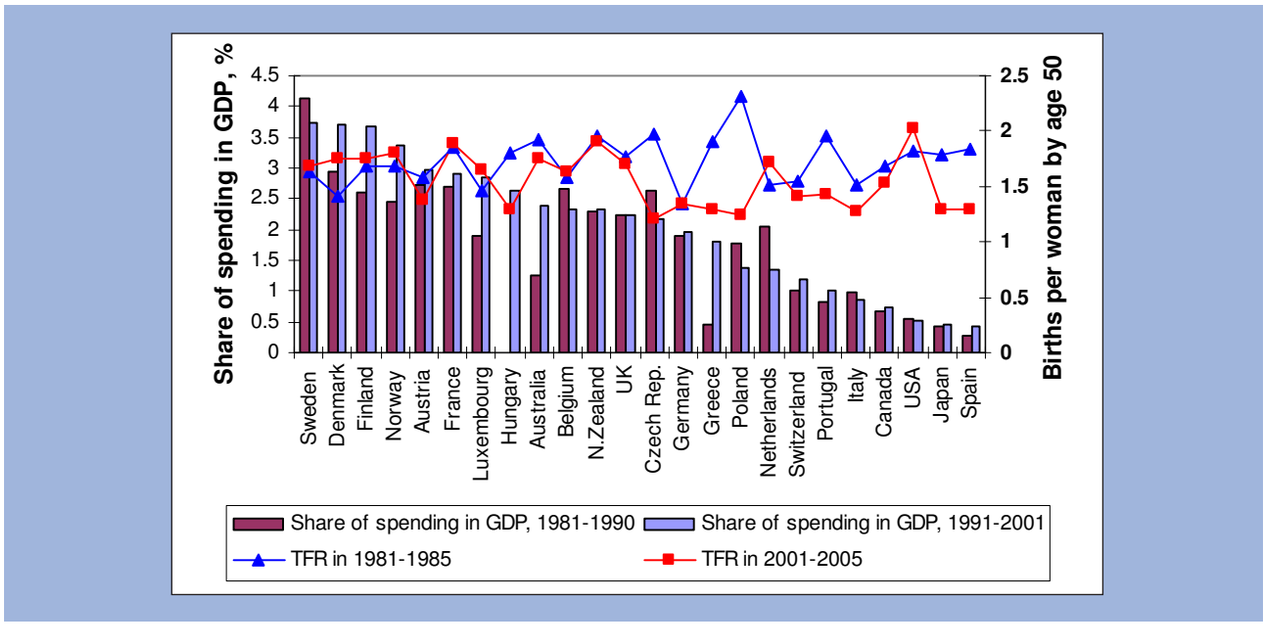

Figure 2.8. *Share of total expenditure on family policy in developed countries as % GDP in 1981-1990 and 1991-2001 and TFR in 1981-1985 and 2001-2005 (countries are ranked by spending on family policy in 1991-2001*

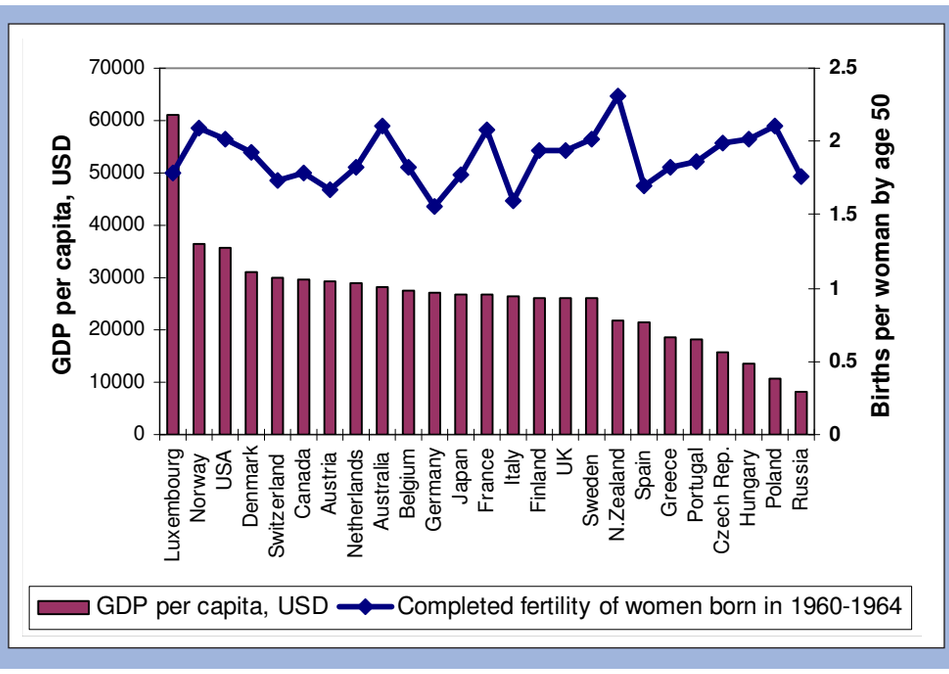

Figure 2.9. *GDP at purchasing power parity per capita (2002) and completed fertility of cohorts of women born in 1960-1964*

2.4. Fertility changes have limited dependence on marriage rates

2.4.1. Lifetime marriage is no longer dominant

Changes in the sphere of family relationships are important for correct assessment of fertility outlook. Structure of the population of reproductive age is undergoing a rapid transformation as regards matrimonial status. Some trends already have a long history, but others have gained strength in the last 10-15 years.[5]

The share of people who have been through divorce has been growing throughout the post-war period. Unfavorable trends in the adult mortality observed since the mid-1960s, have increased the risk of early widowhood. At the same time, repeat marriages have become more widespread, leveling the negative consequences of early divorce. Also, from the end of the 1950s to the beginning of the 1990s the marriage age was deckling in both sexes, as was the number of people who had never been married. Total impact of increase in the number of early marriages and repeat marriages outweighed

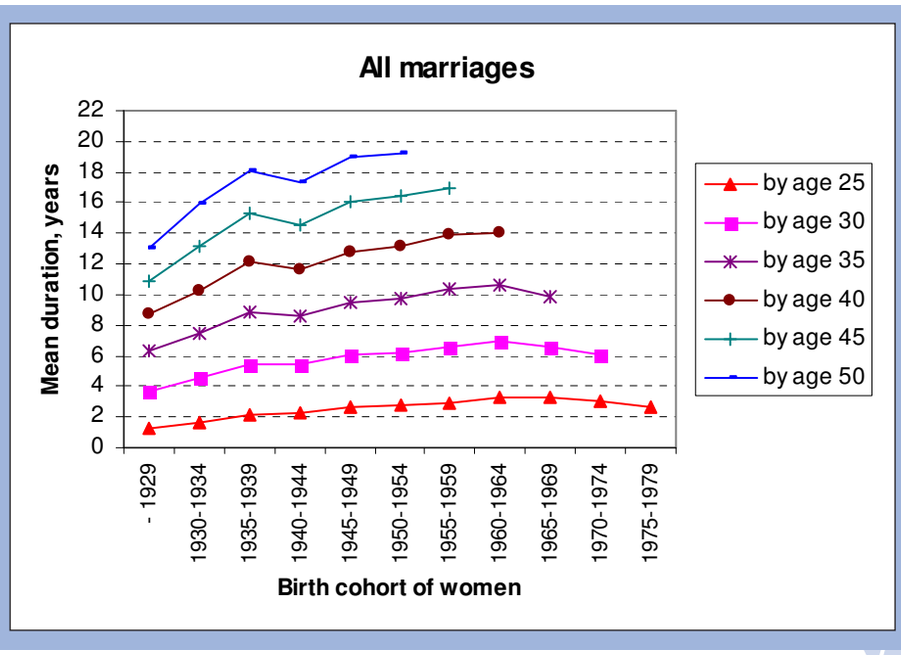

Figure 2.10. Total time spent in legal marriages of all orders per woman who has ever been in partnership by the specified age, Russia, birth cohorts of women

Source: Author's estimates based on Russian GGS (2004)

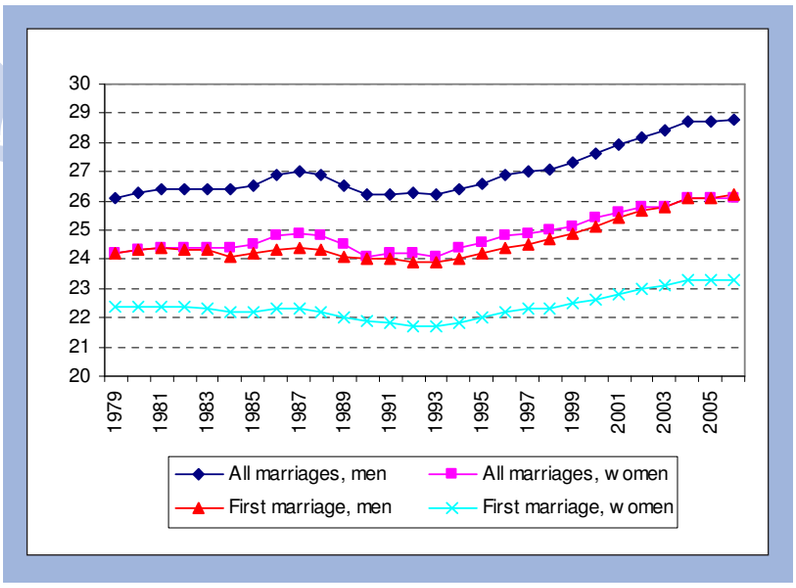

Figure 2.11. *Mean age at marriage for men and women who contracted marriages up to 50), 1979-2006.*

Source: ROSSTAT published and unpublished civil registration data, and author's estimates.

negative impact of divorces and early widowhood. As a result, the average duration of marriage for women of active reproductive age in Russia actually increased (Figure 2.10), although growing rates of divorces and deaths would suggest a decrease.

Marriage relations in Russia entered a new stage of development in the mid-1990s.

Firstly, gradual decline of the mean age at marriage came to an end and began to rise (first marriages were postponed), Figure 2.11.

Second, total intensity of marriages has also decreased. Reduced marriage rates at young ages were partly compensated by increase in the marriage rates after 25, but this compensation was by no means complete.

Third, the number of unofficial couples (cohabitations, consensual unions, "unregistered marriages" or informal partnerships)[6] has seen an avalanche of growth.

The turning point was in the mid-1990s. While only 20-25% of couples in Russian generations of the 1930-1950s started family life without being officially married, this proportion was at least twice higher among generations of the 1970s (Figure 2.12). In the recent past cohabitation was mainly a specific feature of repeat unions (in the 1950s-70s, 25-30% of second unions were sealed by official marriage, but all the rest consisted of informal cohabitation). But nowadays this proportion is applicable to first unions. Legal marriage is becoming a rare event in second unions and it is exceptional for cohabitation in second unions to be immediately ratified by official marriage (Figure 2.13). In first unions informal cohabitation usually leads to official marriage, but the probability of ever registered marriage decreases from cohort to cohort. In generations of Russians born in the second half of the 1950s, over 95% of total time in partnerships among women of reproductive age consists of official marriage. For generations born in the second half of the 1970s this indicator is barely 75% and current trends make further decrease inevitable (Figure 2.14).

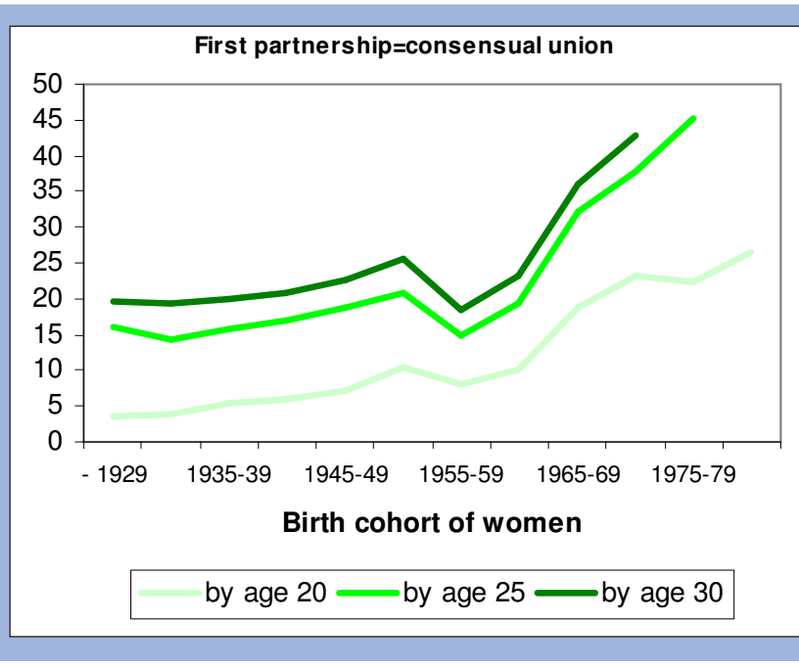

Figure 2.12. *Cumulative percentage of women who had, by the specified age, entered a first partnership which was a consensual union (not a legal marriage): Russia, birth cohorts of women.*

Source: Author's estimates based on Russian GGS (2004).

All the trends described above are reflected in nuptiality structure of Russian population, as recorded by censuses. The 2002 Census

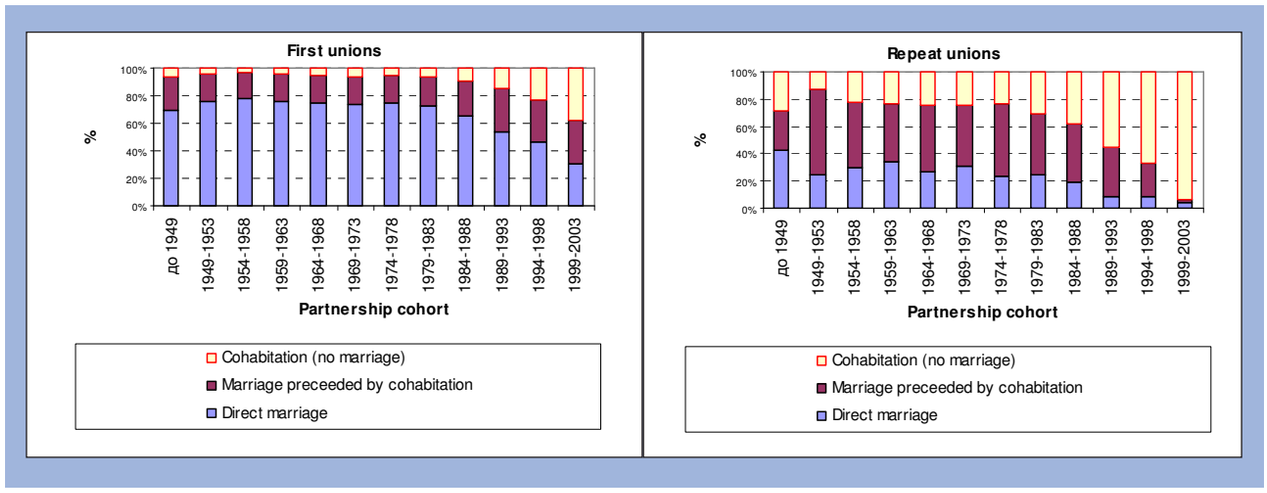

Figure 2.13. *Percentage of first and repeat unions with varied initial status: Russia, cohorts by year when partnership began*

Source: Author's estimates based on Russian GGS (2004).

found that the share of married men and women had significantly decreased as compared with data of the micro-census of 1994 (Table 2.5). The decline was most noticeable among young reproductive groups. Marriages before 20 and even before 25 had become rare. The share of persons aged 20-24 who declared themselves married decreased by 15 percentage points over 12 years (in 2002 less than a half of women and less than quarter of men of this age said that they were married). Until recently this age group in Russia was characterized by maximum marriage rate and maximum birth rate. The 2002 Census also found an increase in the proportion of people who describe themselves as "married" but have not registered their marriage (Table 2.5). Also, there are many reasons for assuming that the population census understates the number of informal unions.

Sample surveys, which focus less on legal status of unions and more on the actual state of affairs in households, give a less distorted picture of family structure. The two waves of Russian Generations and Gender Survey (2004, 2007) show that the share of single men and women at all ages is significantly lower than the 2002 Census suggests (Table 2.5). The difference is due to degrees of completeness in recording cohabitation, which depends on the wording of questions about marriage status of respondents[7]. The population censuses and sample surveys show equal shares of men and women, living with a partner in official marriages.

Although estimates of informal unions in the census and in the sample surveys are different, overall conclusions are beyond doubt: there is a trend to leave creation of a family until a later age and a trend away from official marriage.

These trends in matrimonial status and family partnerships are often viewed as the reason for low fertility. But is this assumption justified?

As shown above (Figure 2.10), despite all the changes, the average period during which women of reproductive age in Russia are married has been growing, and this is unlikely to have negative impact on fertilty of Russian generations.

On the other hand, major changes in relationship structure are bound to influence structural characteristics of childbearing. Study of this influence is difficult due to lack of information. Official Russian vital statistics do not enable analysis of fertility from a viewpoint that takes account of whether unions are first or repeated, the type of union (registered marriage or cohabitation), their duration, and many other important factors. These statistics do not report cohabitation of parents at the time of child birth and do not allow the social category of "single mother" to be distinguished.

The only representative sample survey in Russia, which offers useable data is the above-mentioned survey, Russian GGS. Its data will be used hereafter.

2.4.2. The growing role of repeat unions

The number and duration of repeat unions is on the increase and their contribution to the total number of births is also on the rise. Liberalization of matrimonial legislation in the second half of the 1960s simplified the process of divorce and increased the chances for second marriage at an age when reproductive potential is not yet exhausted.

Table 2.5. Married men and women in different age groups, according to data of various surveys

	Age, years:						
	18-19	20-24	25-29	30-34	35-39	40-44	45-49
Men							
	Microcensus of the population, 1994						
Married, per 1000	63	383	712	805	837	850	857
of whom, in registered marriage, %	84	92	94	94	94	93	94
	Census of the population, 2002						
Married, per 1000	26	238	576	708	764	789	802
of whom, in registered marriage, %	62	78	84	87	89	91	92
	Russian GGS, 2004						
Live with partner in a shared household, per 1000	50	310	640	800	830	850	890
of whom, in registered marriage, %	44	58	76	81	83	85	90
	Russian GGS, 2007						
Live with a partner in a shared household, per 1000	30	230	600	750	850	880	870
of whom, in registered marriage, %	33	57	73	82	85	84	89
Women							
	Microcensus of the population, 1994						
Married, per 1000	237	565	751	799	797	771	738
of whom, in registered marriage, %	89	93	94	94	94	94	93
	Census of the population, 2002						
Married, per 1000	123	423	654	706	724	721	698
of whom, in registered marriage, %	67	81	86	88	91	92	92
	Russian GGS, 2004						
Live with a partner in a shared household, per 1000	200	480	760	780	770	760	740
of whom, in registered marriage, %	39	70	81	80	83	88	86
	Russian GGS, 2007						
Live with a partner in a shared household, per 1000	140	430	720	780	760	710	740
Of then in a registered marriage, %	33	62	79	83	81	87	88

Source: Marital status and fertility in Russia (according to the data of the 1994 Microcensus of the Population), Moscow, Goskomstat, 1995, p.8-9; Age and sex composition, and marital status of population. Results of the All-Russia 2002 Census of the Population, Volume 2. Moscow, "Statistics of Russia" publishing center, 2004, p.300-303; author's calculations based on Russian GGS (2004, 2007).

In the 1950s first unions were completely dominant. Over 99% of first children and 98% of second and subsequent children from unions, where the partners were living together, were from first unions (Table 2.6). Taking account of all births, including children born to single mothers, it is clear that in the 1950s, birth as a single mother was the only alternative to birth in the first union. The number of non-marital births was about 20% of the total number of births. The contribution of repeat unions was very small.

At the end of the 20th century the distribution of births changes. Repeat unions account for over 16% of all births, including 10% of first births, 23% of second births and over 35% of third and subsequent births. The contribution of single moth-

*Table 2.6. Contribution of first and repeat unions to births, 1949-1953, 1974-1978 and 1999-2003**

	1949-1953	1974-1978	1999-2003
All births			
First unions	99.1	93.2	83.7
Repeat unions	0.9	6.8	16.3
First births			
First unions	99.3	97	90.6
Repeat unions	0.7	3	9.4
Second births			
First unions	98.1	89.5	76.7
Repeat unions	1.9	10.5	23.3
Third and subsequent births			
First unions	97.5	84.4	64.5
Repeat unions	2.5	15.6	35.5

* Calculations refer only to births in stable unions with shared household. Births before creation of such unions or outside such unions were not included.

Source: Author's estimates based on Russian GGS (2004).

ers has halved over 50 years. So the total number of births, and particularly the number of births of second and third order, depends to a growing extent on reproductive behavior of partners in repeat unions. As mentioned above, repeat unions nowadays very rarely begin with official marriage, and only one in every three couples in repeat unions ever take the step of official marriage. This creates an extra impulse for increase in the share of "extramarital" children.

2.4.3. Growth of non-marital fertility due to growth of informal unions

Thirty years ago the share of non-marital births barely exceeded 10%. The biggest contributions to childbearing out-of-legal marriage were from young mothers (under 20 years old) and mothers aged more than 35. The same extreme age groups accounted for increase of non-marital births in the 1980s. Birth of a child to a woman who was not married was a very rare event at the matrimonial peak (20-29 years old). In case of unplanned pregnancy before marriage or outside marriage, this "shame" was usually smoothed by a hasty wedding.

In recent decades growth of the non-marital fertility not only accelerated but became rather common at the age of the matrimonial peak. Today non-marital births are 29-30% of total births and are equally typical for all age groups (Table 2.7).

The trends in Russia are in line with those in other developed countries. Russia ranks 20th among 37 countries by the share of non-marital

Table 2.7. Percentage of non-marital births to mothers at different ages, 1980, 1990, 2000 and 2006

Age	1980	1990	2000	2006
15-19*	18.7	20.2	41.0	47.2
20-24	7.9	11.0	25.6	28.2
25-29	9.4	11.8	24.7	24.6
30-34	13.5	17.3	26.4	26.4
35-39	21.5	25.5	31.2	29.9
40-44	23.8	34.8	34.9	34.2
45-49**	23.1	36.5	36.8	34.1
Age not stated***	75.2	85.5	93.7	97.3

* Including children born to mothers under 15 y.o. ** Including children born to mothers over 49 y.o.

*** In 2006 the total number of children, born to mothers of unknown age, was 1857. Most of them are left by their mothers in birth clinics and their inclusion in the "extramarital" category is very relative as these children are registered by state application and not by application from individuals.

Source: Calculations based on Rosstat data

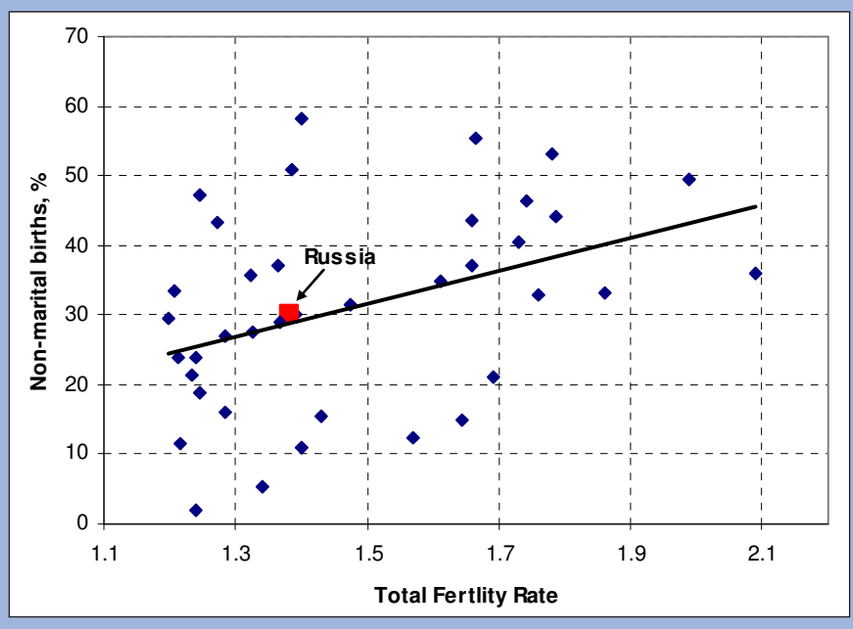

Figure 2.15. Correlation between TFR and share of non-marital births in 40 developed countries, early 2000s.

births (2000-2005 data). In Sweden and Estonia the share of non-marital births is 55%, but in Greece only 5% and in Japan only 2%. A generally positive correlation between total fertility and the share of non-marital births is worth noting. Developed countries with below-average TFRs include some with high and some with low shares of non-marital births. But in countries with relatively high fertility the share of non-marital births is always high (Figure 2.15).

Childbearing out-of-legal marriage has become a mass phenomenon throughout society. But official statistics offer little scope for its proper study, and this has tended to encourage inaccurate assessments. One of the most widespread of these is identification of non-marital birth with single motherhood. This was justified in the past, particularly in the first post-war decades. But nowadays, as special research shows, non-marital births are mainly to unregistered couples and not to single mothers.

This is proved by Figure 2.16, representing trends in the share of non-marital births. The data are from civilian registrars and the Russian GGS. According to the survey, single mothers give birth to 8-10% of births, which is less than one third of all non-marital births. But according to data from official statistics, the share of births registered by declarations from single mothers is twice higher.

There is good coordination between official registration data and data of the Russian GGS for the 1970s, so it is reasonable to assume that discrepancy between the two measures in later years is due to some specific factor. This factor is probably better state provision for single mothers, dating from the second half of the 1970s: since social security provisions are now in place, which offer extra allowances and benefits to single mothers, declaration of extramarital status of a birth has economic advantages. So real family status of a woman at the time of birth tends to be falsified and statistical estimates of the number of single mothers in Russia tend to be exaggerated.

The first important conclusion, therefore, is that most non-marital births nowadays are the result of unregistered unions, which have become much

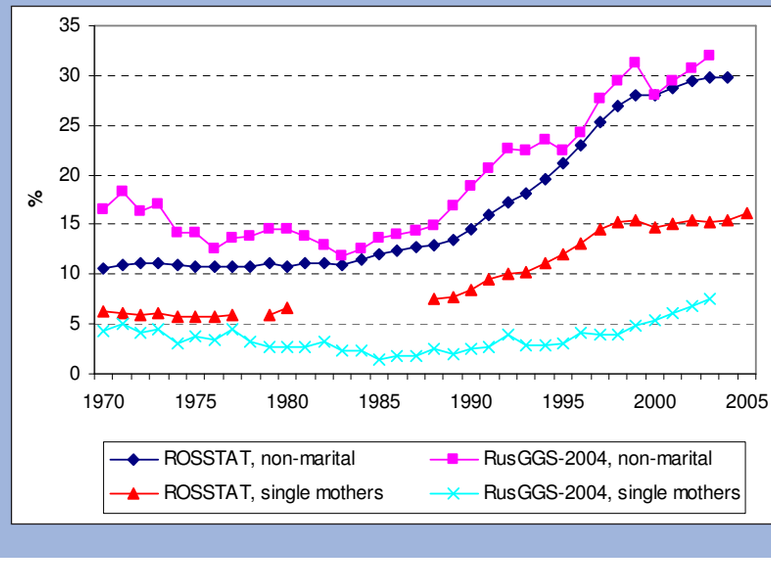

Figure 2.16. *Proportion of non-marital births and births to single mother in total number of births, %: Russia, 1970-2005.*

Source: Official Rosstat vital statistics data and author's estimates based on Russian GGS (2004).

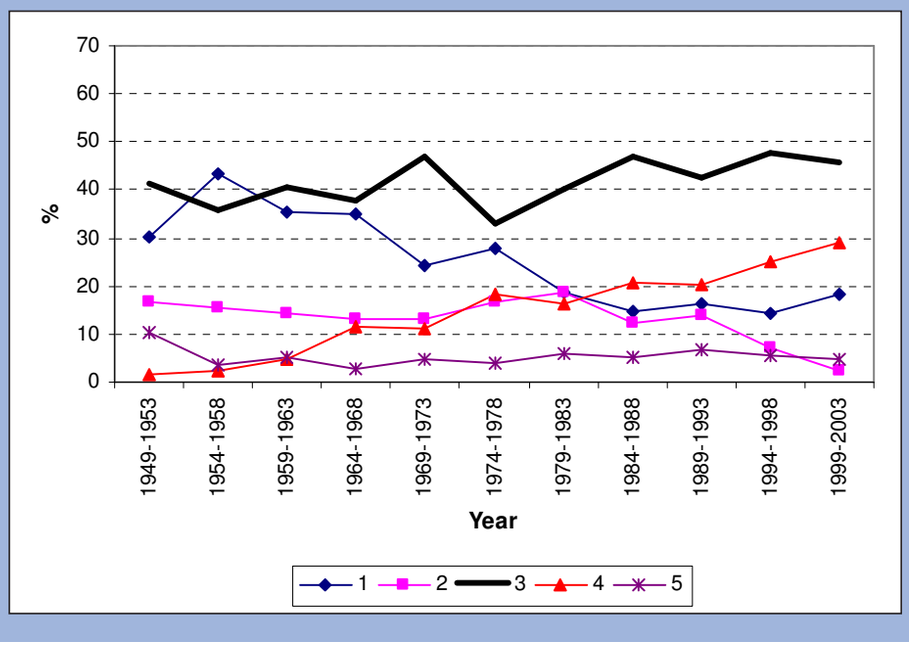

Figure 2.17. *Structural components of non-marital births, 1949-2003, %*

(1) births to mothers who never had a shared household with a partner;
(2) births at least 6 months before creation of shared household with a partner;
(3) births from first union (including cohabitations, which were later converted into marriage);
(4) births from second and subsequent unions (including cohabitations, which were later converted into marriage);
(5) other extramarital births, including those at least 10 months after rupture of a union.
Source: Author's estimates based on Russian GGS (2004).

more common. The second important conclusion is that many mothers who are not officially married prefer to register a newborn child as single mothers, even though they have a shared household with the child's father (they presumably have the father's support in doing so).

More detailed trends in structure of non-marital births (by status of the parents at the time of child birth) are shown in Figure 2.17. The contribution of first unions remained stable at 40-50% through-

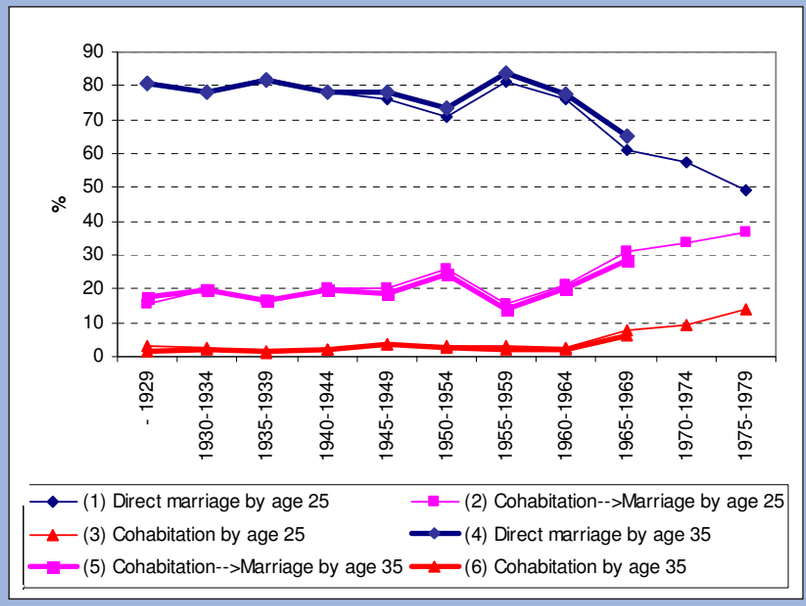

Figure 2.18. *Distribution of women, having experience of first cohabitation with shared household for at least 3 months by age 25 and 35, by types of union: Russia, birth cohorts.*

(1), (4) unions started with marriage registration;
(2), (5) unions started with informal relationship (cohabitation), followed by marriage registration;
(3), (6) unions without marriage registration.
Note: Estimates are based on calculation of total number of person-days in the specific status by female birth cohorts.
Source: Author's estimates based on Russian GGS (2004).

out the post-war period. However, the contribution of repeat unions is growing steadily. Fifty years ago, second unions made an insignificant contribution to the total number of non-marital births (unsurprisingly in view of their low occurrence at that time). Today every third child out-of-registered marriage is born from a repeat union. It is important to note that, during the post-war period, the contribution to non-marital births by women, who never had a shared household with a partner, halved, from 40% to 15-20%. The share of non-marital births before the first partnership rose temporarily to 20% in the 1970-80s, but fell practically to zero in the 1990-2000s. This apparently reflects better precautions against unplanned pregnancy at the very beginning of adult life (at the time of first sexual experiences).

2.4.4. Role of unregistered partnerships in reduction of the fertility is greatly overestimated

Increased diversity of types of unions, due to relative growth in the number of repeat unions and unregistered unions, has growing impact both on structural components of fertility and on the family environment, in which children are born and educated. This environment is becoming more complex and diverse. What is the effect of all this on overall fertility in Russia?

It is often assumed that informal unions are much less likely to produce children than traditional marriages, so that extension of the practice of unregistered cohabitation will have negative impact on the overall fertility. So advocates of traditional family life see its erosion as a cause of the recent fertility decline.

But is fertility in fact so different in different types of union?

To answer this question we analyze the average number of children born in the first union (first for the woman), which, as already mentioned, still make the chief contribution to the overall fertility. We compare levels of this indicator in three types of union (Figure 2.19): (1) unions, which began with official registration (about 50% of all first unions for women born in 1975-1979); (2) unions, which began with cohabitation, followed by marriage registration (about 40%); (3) informal unions, which remained unregistered (about 10%).

As of today, unions, which started with marriage, and consensual unions, which were converted into marriage at a later date, are almost identical with respect to fertility for women aged 25 and 35 (Figure 2.20). Nor was there ever any clear trend in differences between fertility for the two types of union in the past. However, it should be mentioned that, for generations born in the second half of the 1950s and first half of the 1960s, and who created families at the time of intensive state family policy (in the 1980s), the difference of fertility in favor of "traditional" marriage was maximum – equaling 0.2 births per woman aged 35. A difference of comparable magnitude but in the opposite direction is registered for generations of women born in

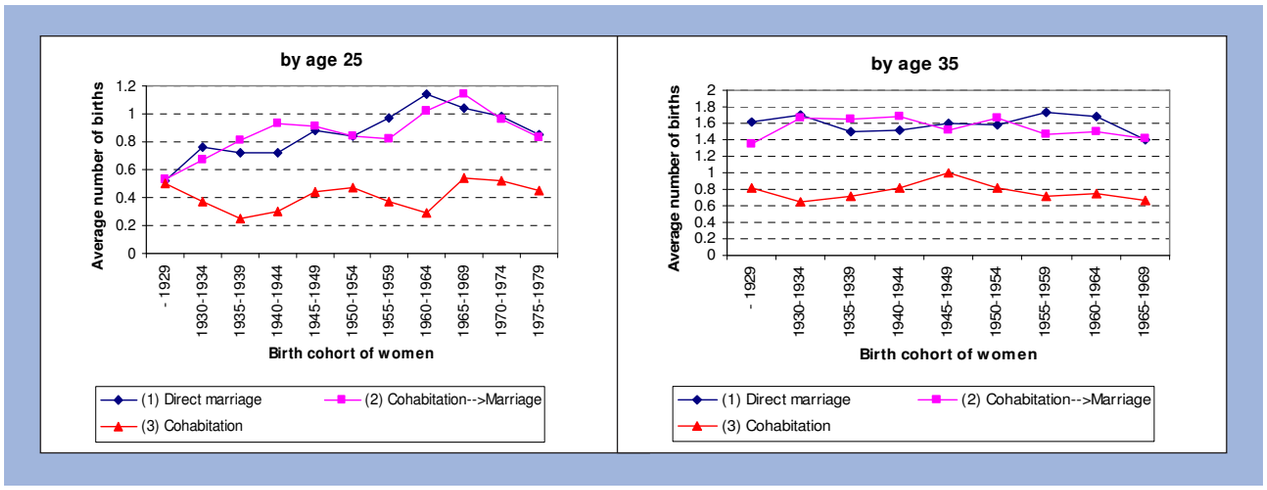

Figure 2.19. *Average number of children ever born per woman from a real generation by age 25 (left panel) and 35 (right panel) in first unions of different types*

(1) unions started with marriage registration;
(2) unions started with informal relationship (cohabitation), followed by marriage registration;
(3) unions without marriage registration.
Source: Author's estimates based on Russian GGS (2004).

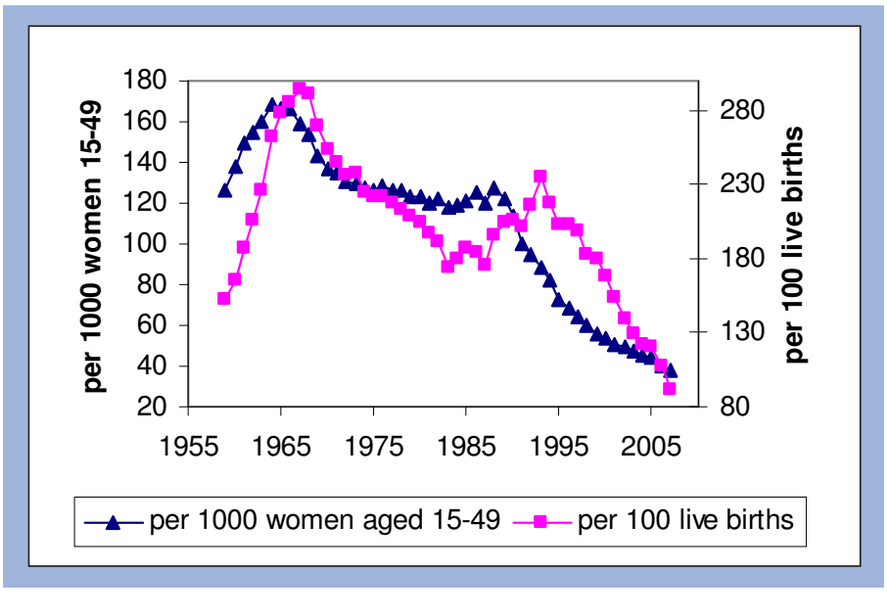

Figure 2.20. *Number of induced abortions per 1000 women aged 15-49 years per 100 live-births, Russia, 1959-2007*

Source: Author's calculations based on official ROSSTAT data.

the first half of the 1930s until the second half of the 1940s. In that period fertlity in unions, which started with cohabitation and led to marriage, was higher.

First unions where marriage has never been registered have twice lower fertility than unions, which were eventually registered as marriage (Figure 2.19). There is no specific long-term trend of change in fertility in these unions. So there are no significant changes in ratio of fertility in ever registered and never registered unions.

The calculations above omit one important factor: different types of union differ significantly by their duration. In essence, we are comparing cumulative fertility rate, achieved in different periods of time, i.e. in the different average durations of various types of union. Indeed, mean duration of a union, in which marriage is never registered, is only half of that of a union, in which marriage is at some time registered (6.5 years vs. 11-12 years for women aged 35). However, unions that started with marriage registration last only slightly longer than unions with postponed marriage registration (the difference in average is about 0.5 of a year).

If we calculate normalized "productivity" of different unions – the average number of births per one year of a union's duration – by dividing average total number of births by average duration of each type of union, the difference between fertility rates in different types of union almost disappears. If we compare three women born in 1965-1969, each of whom cohabited with a partner for 10 years by the age of 35, but in different types of first unions, then total fertlity rate by this age will be 1.2 births for a woman, who started her union with marriage registration, 1.3 births for a woman, who started her union as an informal relationship leading to marriage registration, and 1.1 births for a woman who never registered her union. So if duration of unions was equal, the reproductive result would be almost the same.

From the point of view of a fertility level, official status of the union does not seem to have any significance in modern Russia, though a psychological sense of uncertainty about the relationship in case of unregistered unions may have negative impact on decisions about child-bearing. On the other hand, it could be that such unions are not registered and the relationships are more liable to threat of breakdown precisely because the partners cannot agree about having a child together?

Most first unions, in which marriage is never registered, are "trial marriages", which initially had a matrimonial purpose but failed the "durability test". These breakdowns predetermine the low average duration of informal unions. According to our preliminary data, "trial" unions often break down due to unplanned pregnancy and untimely birth of a child. However, the share of informal unions, which break down after birth of children, has been declining in recent decades and, on the contrary, the probability of breakdown of childless unions is becoming higher[8]. But whatever the reproductive behavior of unions, which never lead to formal marriage, their demographic significance in modern Russia is very weak due to their relatively small number (10% maximum of the total number of first unions, see Figure 2.19).

When partners who start their union with informal relationships make a success of their cohabitation (the usual case), they eventually register a formal marriage and form the second type of union (according to the terminology we use here), which are in no way inferior to traditional unions by either duration or by birth rates. Informal unions eventually leading to official marriage are becoming much more widespread at the expense of tra-

ditional married unions, so they deserve particularly careful attention. It is quite possible that such unions will come to dominate both first and repeat unions in Russia within the next 10-20 years, as has already happened in many European countries (particularly France and the Nordic countries), as well as in the USA. The latter all have overall fertility, which is above the average for developed countries.

2.5. Family planning

Infant mortality in Russia declined in the first half of the 20th century, as it did in other developed countries, so that the final number of children in the family was close to the number of live births. Increase in the share of efficient births and, correspondingly, reduction of useless births was one of the main social achievements in the course of demographic modernization (demographic transition).

The next historical stage in evolution of the fertility is achievement of maximum possible coincidence between number of births and the number of pregnancies, and maximization of pregnancies, which occur when they are intended. This has become possible thanks to the contraceptive revolution, which has provided highly efficient tools for pregnancy control, primarily through hormonal and intrauterine contraception. Most recently levels of control over human fecundity have advanced further thanks to technologies that help to regulate the ovulation cycle, solutions to various problems of male and female sterility, subfecundity pregnancy support, etc. The ability to have children when they are wanted has increased greatly in recent decades and efficient family planning has become the norm for the majority of the population.

Russia and other republics of the former USSR, lagged behind in development , production and distribution of efficient means of contraception. For many decades abortion remained the most widespread means of birth control. Issues of family planning, abortion prevention, and sexuality were taboo in the Soviet media and popular literature. At the start of the 1970s the Soviet Ministry of Health Care halted development of domestic hormone contraceptives and prohibited their purchase abroad, citing supposed health risks. By prolonging the conservative approach to family planning, which dated from the 1930s-50s, the state closed the path to modern contraception, undermining its declared objective of reducing the "evil of abortion".

In the 1980s only 8-10% of married women of reproductive age in Russia used hormonal and intrauterine contraception, compared with 20-40% in developed countries. Adding contraceptive sterilization, which was very widespread in many countries, but unknown in our country during the Soviet period, the level of maximum efficient pregnancy control in developed countries is 50-60%. These differences in contraceptive practice make it unsurprising that Russia had a figure of 120 abortions per 1000 women of reproductive age in the 1980s compared with only 20 per 1000 in Western countries.

A breakthrough was only achieved in the 1990s thanks to demonopolization of the market for contraceptive drugs, media liberalization and activities of the Russian Association for Family Planning (with state support)[9]. Numbers of induced abortions fell in the first half of the 1990s for the first time in Russia's history, despite the fertility decline. Abortion ratio per 100 live births has fallen by more than half over 15 years (Figure 2.20). The number of expected abortions per woman during her lifetime at the start of the 1990s was 3.4, but that figure had declined by 2006 to 1.3 (less by two abortions or nearly 2.5 times).

Doubt is sometimes cast on the rate of decline in numbers of induced abortions. The decline may be exaggerated due to incompleteness of accounting (because of development of private health care services). It is probably true that a share of private abortions is missed in part by official statistics (though they should be accounted by law). But results of some sample surveys suggest that the accounting error is insignificant and gives no ground for denying a fast decline in the number of abortions in Russia.

Lowering of abortion numbers has been facilitated by rapid conversion to efficient pregnancy control practices (Table 2.8). According to data from the Russian GGS, the share of women of reproductive age using hormonal or intrauterine means is as high as 40%. This still only matches European data from 20 years ago, but the progress is evident nonetheless.

Despite clear progress, the strategic target of desired children at the desired time has not yet been achieved for the majority of families in Russia. According to the Russian GGS 2004, current pregnancies were assessed as "desired and timely" by only 58% of respondents, while 23% assessed them as "desired, but untimely", and 19% said they were "undesired"[10]. The share of "unexpected" pregnancies is much lower in countries with developed family planning culture. The Netherlands, for example, has the lowest abortion rates in the

Table 2.8. *Usage of contraceptive methods in Russia: selected survey data, % of women in reproductive ages using contraception*

	Region	Year	Withdrawal	Rhythm	Vaginal douche	Condom	Intrauterine device	Hormonal	Other
1.	c. of Moscow	1982	14	30	17	21	11	4	4
2.	Khabarovsky kray (rural districts)		20.0	17.1	16.4	20.4	12.5	3.7	10.4
	Tverskaya oblast (urban)*	1985	19.2	19.9	14.3	20.5	15.4	3.3	8.1
	Chelyabinskaya oblast (urban)*		20.3	20.5	18.7	16.7	11.7	2.4	10.8
3.	c. of Leningrad, c. of Kaluga	1988	18.4	24.4	14.7	16.9	24.4	3.3	н.д.
4.	Ivanovskaya oblast (urban+rural), c. of Ekaterinburg, c. of Perm**	1996	7.0	16.4	н.д.	17.1	42.3	10.3	6.8
	Ivanovskaya oblast (urban+rural), c. of Ekaterinburg, c. of Perm**	1999	11.0	16.4	н.д.	21.9	34.2	11.0	5.5
5.	Russia (Russian GGS, 2004)***	2004	7.6	11.4	4.2	27.9	28.6	17.2	3.1

* Used contraception in the last two years; ** Women having a partner; ***Women having a partner, reference to the most efficient method if several methods were used.
(1) 75% of women used any method at the time of survey;
(2) in last two years before the survey, regularly used any method for two years before the survey: 64% of women in Tverskaya oblast, 60% of women in Chelyabinskaya oblast, 57% of women in Khabarovsk kray. 14%, 15%, 20% of women in corresponding regions never used contraception;
(3) 59% of sexually active women used any method at the time of survey;
(4) 71.9% of women used any method at the time of survey in 1996 and 72.8% in 1999;
(5) 83.8% of women used any method at the time of survey.
Source: S.V. Zakharov, V.I. Sakevitch, Specific features of family planning and fertility in Russia: Has the contraceptive revolution happened? // Parents and Children Men and Women in Family and in Society. Based on the sample survey. Collection of analytical articles. Vol. 1. Sc. Editor: T.M. Maleeva, O.V. Sinyavskaya, Independent Institute for Social Policy, 2007. p.135.

world: its percentage of unwanted pregnancies 20 years ago was twice lower than in Russia today, and its total fertlity is much higher. State support for family planning programs and special educational programs for young people have made the Netherlands the world leader in this respect.

* * * * *

Positive shifts in Russian fertility, seen in recent years, should not give rise to excessive euphoria: at best we are only at the start of the road. Some experts are concerned that demographic policy measures, which came into force in 2007 and are intended to stimulate fertility, are of dubious value. Although the official Demographic Policy Concept declares a course towards stimulation of fertility in Russia, careful analysis of proposed measures raises doubts that targets will in fact be achieved and suggests that positive results will have a temporary character. Negative fertility trends will be interrupted, but there may not be any significant changes in the long term. The arrival of a world economic crisis in 2008 adds to these concerns.

Different age groups, socio-economic groups and ethnic groups will respond differently to government policy, and it is hard to predict the scale and nature of such reactions. For example, it is not clear how an increase of fertility rates will be correlated in young, medium and older age groups, and

in unions of different types. Based on former Russian experience and experience of other countries (particularly the Nordic countries), it may be that rise of maternity age will slow down in the first 5-7 years after introduction of the new policy measures (in the period when birth rates rise in response to the measures). But that is very likely to be followed by a fertility recession, with rapid ageing of fertility profile, and transition to a birth time-schedule typical for the majority of developed countries.

The government Concept fails to take adequate account of fundamental structural changes in family relationships, the micro-economy of households and fertility in the medium and long terms. But growing complexity of types and forms of unions, and of the structural characteristics of families and households where children are born, is an undeniable fact that must be studied and considered when social and demographic policy decisions are made. There is every reason to predict further increase in the contribution of informal unions and second unions to fertility. These structural changes have had limited impact on the overall Russian total fertility rate to date, but they may be decisive in the future.

The successes of recent years must be reinforced by consistent development and improvement of the government's family policy taking account of economic, social and demographic realities, which have grown more complex and diverse. The only policy, which stands a chance of success, is one, which broadens freedom of choice for individuals of both genders and families, and enhances their ability to give birth and bring up children in the context of today's economic, social and demographic diversity.

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[1] Signed by President V. Putin 09.10.2007, Decree №1351.

[2] Concept for demographic development of Russia until 2015, signed by the Russian Prime Minister M. Kasyanov, 24.09.2001.

[3] "Maternity capital" is a fixed payment, adjusted according to an inflation index (250,000 rubles or about 7200 euros in 2007, rising to 276,250 rubles from 01.08.2008), which is credited to a special account in the mother's name if she gives birth to or adopts a second child (or a third or subsequent child in case this capital was not allocated at the birth of the second child). This payment may be allocated only once and cannot be spent until the child, for whom allocation was made, reaches the age of 3 years and only for non-cash purposes: education, purchase of accommodation, or increasing the cumulative part of the mother's pension. The money can be used for such purposes during an unlimited period of time and in any proportions.

[4] All Russia representative panel sample survey "Parents and Children, Men and Women in Family and in Society" (Russian Generations and Gender Survey/Russian GGS), in the framework of the UNECE international programme "Generations and Gender", was conducted by the Independent Institute for Social Policy with financial support from the Pension Fund of the Russian Federation and the Max Planck Scientific Society (Germany). The design and standard survey instruments were adjusted to the Russian context by the Independent Institute for Social Policy (Moscow) and the Demoscope Independent Research Center (Moscow), in collaboration with the Max Planck Institute for Demographic Research (Germany). Two waves of research were carried out – in 2004 and in 2007. Sample size was 11, 261 men and women aged 18-79 (first wave) and 11,117 persons aged 18-82 (second wave). For additional information. see: http://www.unece.org/pau/ggp; http://www.socpol.ru/gender/about.shtml

[5] For detailed analysis of trends in marriage-and-partner relationships in Russia, see: Demographical modernization of Russia, 1900-2000. edited by A.Vihnevsky, M., 2006, Part 2; S.V. Zakharov, Age-related model of marriage // Otechestvennie Zapiski, 2006. №4(31). p.271-300; S.V. Zakharov, New trends in family formation in Russia // Mir Rossii 2007. V.XVI, №4. p.73-112; S.V. Zakharov, Transformation of marriage and partner relationships in Russia: Is the "golden age" of traditional marriage coming to an end? // Parents and Children, Men and Women in Family and in Society. Based on sample survey. Collection of analytical articles, Vol.1. / Sc. editor.: T.M. Maleeva, O.V. Sinyavskaya. Moscow. Institute for Social Policy, 2007, p.75-126.

[6] These unions are often mistakably called "civil marriage". But strict meaning of the latter term is "marriage registered by official bodies of the state but not blessed by the church".

[7] The Public Opinion foundation made an effort to study the practice of cohabitation. In March 2005, 1500 respondents were questioned in a representative sample survey. The survey results agree with data of Russian GGS (2004 and 2007). Another survey, carried out as aprt of the programme of European comparative social surveys, is recognized as less successful. Findings of the latter survey suggest that share of men and women living in registered unions is higher than suggested by the 2002 Census, and the indicated share of unregistered unions is incredibly low, particularly for women aged 30.

[8] We would note that childless unions are remarkably durable in Russia (more so than in the US, France and Sweden), which is clearly a negative factor for overall fertility. See: Population of Russia 2006. Fourteenth Demographic Report / Edited by A.G. Vishnevsky, Moscow: State University – Higher School of Economics Publishing House, 2008.

[9] The Federal Family Planning programme, implemented since the 1990s, has proved surprisingly efficient. An entire family planning service has being created, essentially from scratch. (See: Female health in Russia. Analytical report, prepared by the Commission for Women's Affairs, the Family and Demography, attached to the President of the Russian Federation, and by the International Foundation for Mother and Child Health Care. Moscow 1998). Unfortunately, the State Duma deprived the program of direct budgetary financing in 1997-1998. Sex education programmes were also closed down. Possibly, Duma deputies expected that this would be a way of increasing the birth rate.

[10] S.V. Zakharov, V.I. Sakevitch, Specific features of family planning and fertility in Russia: Has the contraceptive revolution happened? // Parents and Children Men and Women in Family and in Society. Based on the sample survey. Collection of analytical articles. Vol. 1. Sc. Editor: T.M. Maleeva, O.V. Sinyavskaya, Independent Institute for Social Policy, 2007. p.147.

Chapter 3

LOWER MORTALITY: THE CATEGORICAL IMPERATIVE

3.1. An intolerable gap

The mortality crisis is one of the clearest manifestations of Russia's long-term demographic crisis.

Signs of this crisis have been visible since the mid-1960s. At that time Russia has not yet caught up with Western countries with respect to mortality reduction, but had greatly reduced the gap, and seemed on track to draw level with the West. However, in 1965 the gap began to widen once again, and by the end of the 20th century Russia was as far behind as it had been 100 years before.

Life expectancy at birth is a summary index, which traces development of the mortality crisis in Russia since the middle of the 1960s and measures scale of the current gap compared with developed and developing countries.

The situation with female mortality can be more or less adequately described as 40 years of stagnation: life expectancy for women has stayed at the level of 1964, with a slight increase in 1986-1992. In 2006 women's life expectancy was 0.33 years less than in 1964. However, male mortality figures have worsened significantly. In 1964 men's life expectancy rose above 65 years for the one and only time in Russia's history. By 2006 male life expectancy was 4.75 years less than in 1964.

Figure 3.1 shows widening of the gap between Russia and other developed countries since 1964, and Figure 3.2 shows the results in other developed countries over 40 years. In 2004 life expectancy in Russia for both sexes was the shortest among 33 European countries. The USA and Japan also leave Russia far behind.

Many international publications now even rate Russia behind some developing countries, which could not compete with Russia by life expectancy 40 years ago. In particular, the UN Human Development Report for 2000-2005 places Russia 119th in the world in terms of life expectancy for both sex-

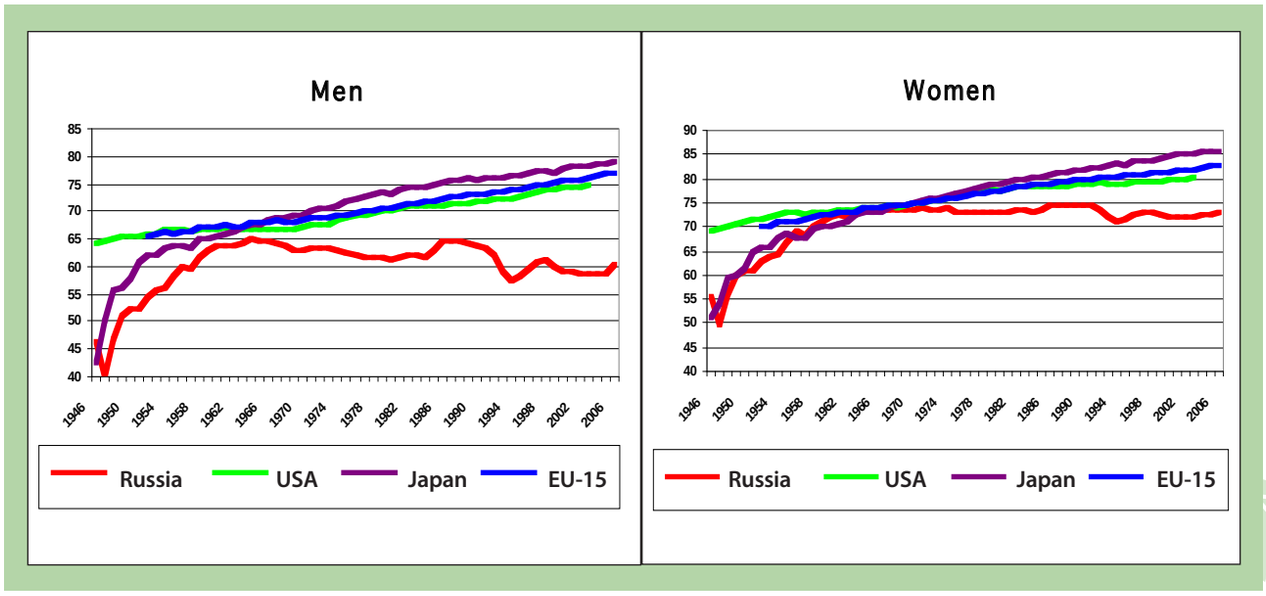


Figure 3.1. *Life expectancy in Russia, European Union, USA and Japan, 1946-2006, years*

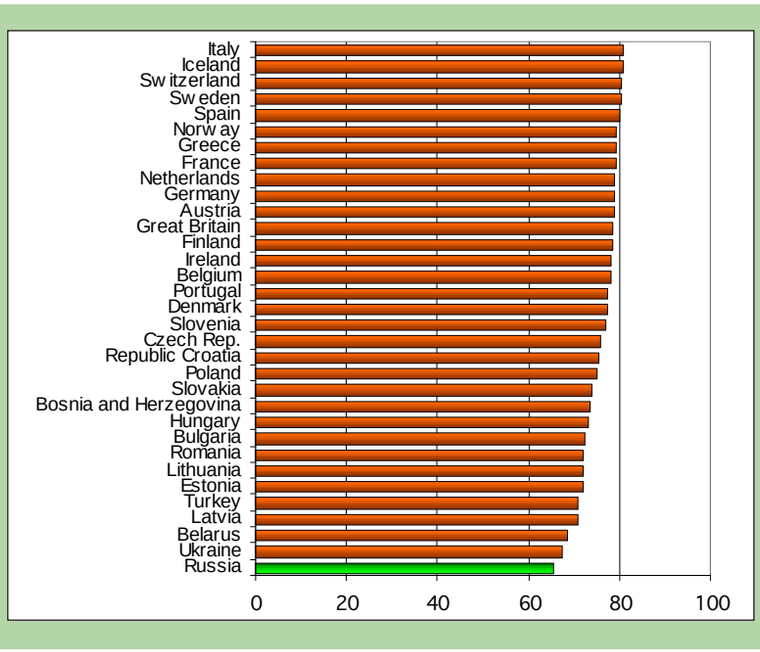


Figure 3.2. *Life expectancy in European countries in 2004, years*

es, behind many developing countries[1]. The nature of mortality statistics in these countries suggests that such data should be treated with caution, as they are sometimes based on local surveys and fail to encompass the whole country. Nevertheless, it is quite possible that Russia is now behind many countries of Asia and Latin America by life expectancy.

3.2. The crisis can be overcome

Russia is not the only industrially developed country where unfavorable mortality trends since the mid-1960s have caused an increasing gap compared with countries that have the same development level. The same processes were observed to varying degrees in all former "socialist" countries of Eastern Europe and in former European republics of the USSR.

Russia always stood out by high mortality rates, even among these countries, but the dynamics of mortality in the 1970s-80s in all these countries were similar (stagnation or decline of life expectancy, attaining crisis levels) (Figure 3.3).

However, trends became more varied from the end of 1980s and a steady increase of life expec-

Box 3.1. Regional inequalities in life expectancy

Life expectancies and speeds of change of life expectancies differ across Russia's regions (Table 3.A). However, trends in expectation of life in all of the Federal districts are in line with the overall national dynamic (Figure 3.A).

Table 3.A. *Life expectancy in Federal districts in 1990 and 2006, years*

	Men			Women		
	1990	2006	Changes	1990	2006	Changes
Russia	63.80	60.37	-3.43	74.40	73.23	-1.17
Federal districts						
Central	63.90	59.87	-4.03	74.80	73.32	-1.48
North-West	63.80	59.08	-4.72	74.10	72.52	-1.58
Southern[2]	64.40	63.22	-1.18	74.70	74.6	-0.1
Volga	64.40	60.01	-4.39	75.10	73.41	-1.69
Ural	64.10	60.54	-3.56	74.30	73.29	-1.01
Siberian	62.60	58.32	-4.28	73.40	71.52	-1.88
Far East	62.30	57.9	-4.4	72.60	70.65	-1.95

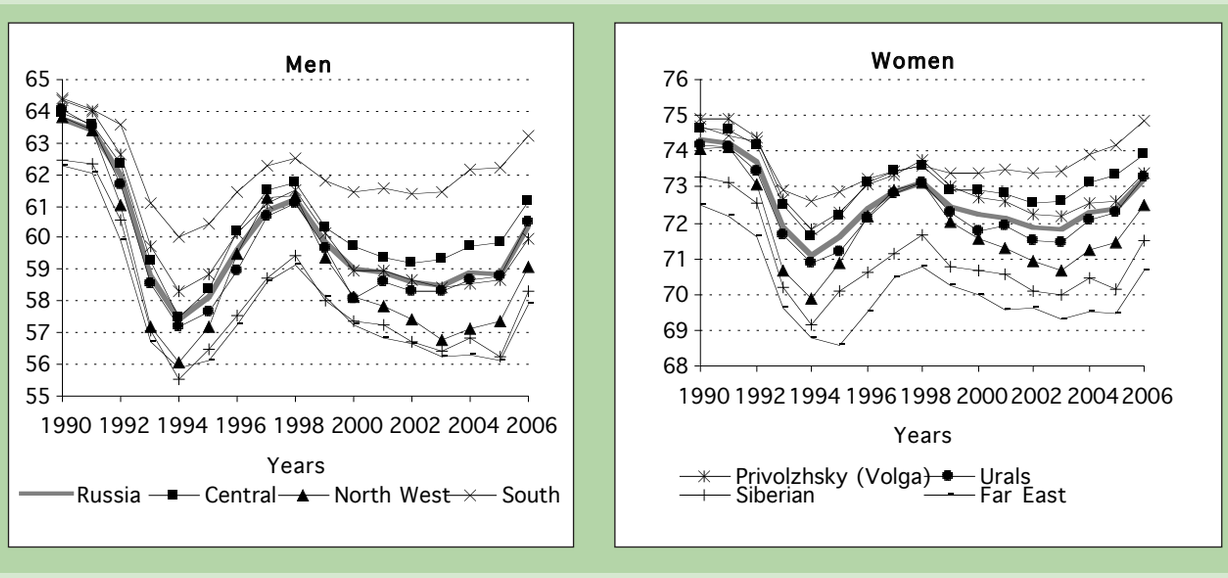


Figure 3.A. *Life expectancy at birth in Federal districts in 1990-2006, years*

Throughout the period under consideration highest life expectancy has been observed in the Southern Federal District, while the Siberian and Far East districts have been marked by lowest life expectancy. The period of mortality increase and declining life expectancy, which lasted until 2006, was accompanied by increasing heterogeneity between districts. The difference between maximum and minimum life expectancies in Federal districts increased from 2.1 to 6.1 years for men and from 2.5 to 4.7 years for women over a period of 15 years (1990-2005). But the difference decreased in 2006 to 5.3 years for men and 3.9 years for women.

The distribution of subjects of the Federation by life expectancy also saw major changes through the period (Figure 3.B).

In 1990 the distribution was very pointed and asymmetrical for both men and women. By 1994, during the period of mortality increase, the distribution shifted to the right and became less concentrated, but gained a certain symmetry. Decrease of mortality in 1994-1998 was accompanied both by growth of concentration of regions and growth of asymmetry. But the levels of 1990 were not regained. Finally, changes of the mortality level in 1998-2005 returned the distribution for men to the level of 1994, but there is greater difference between the distributions of 1994 and 2005 for women: the 2005 distribution for women occupies an intermediate position

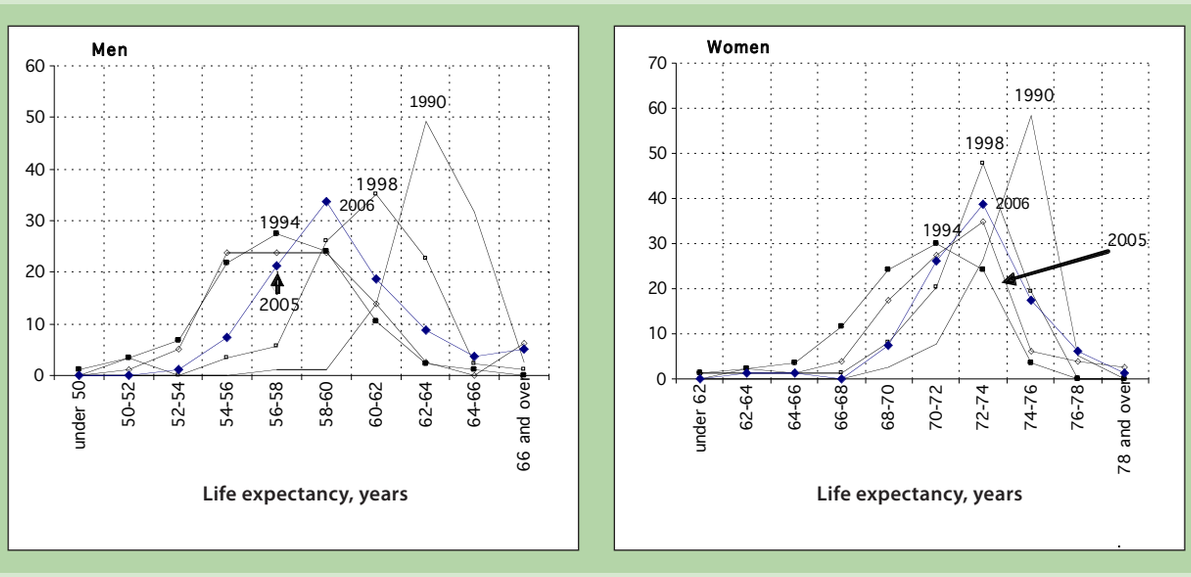
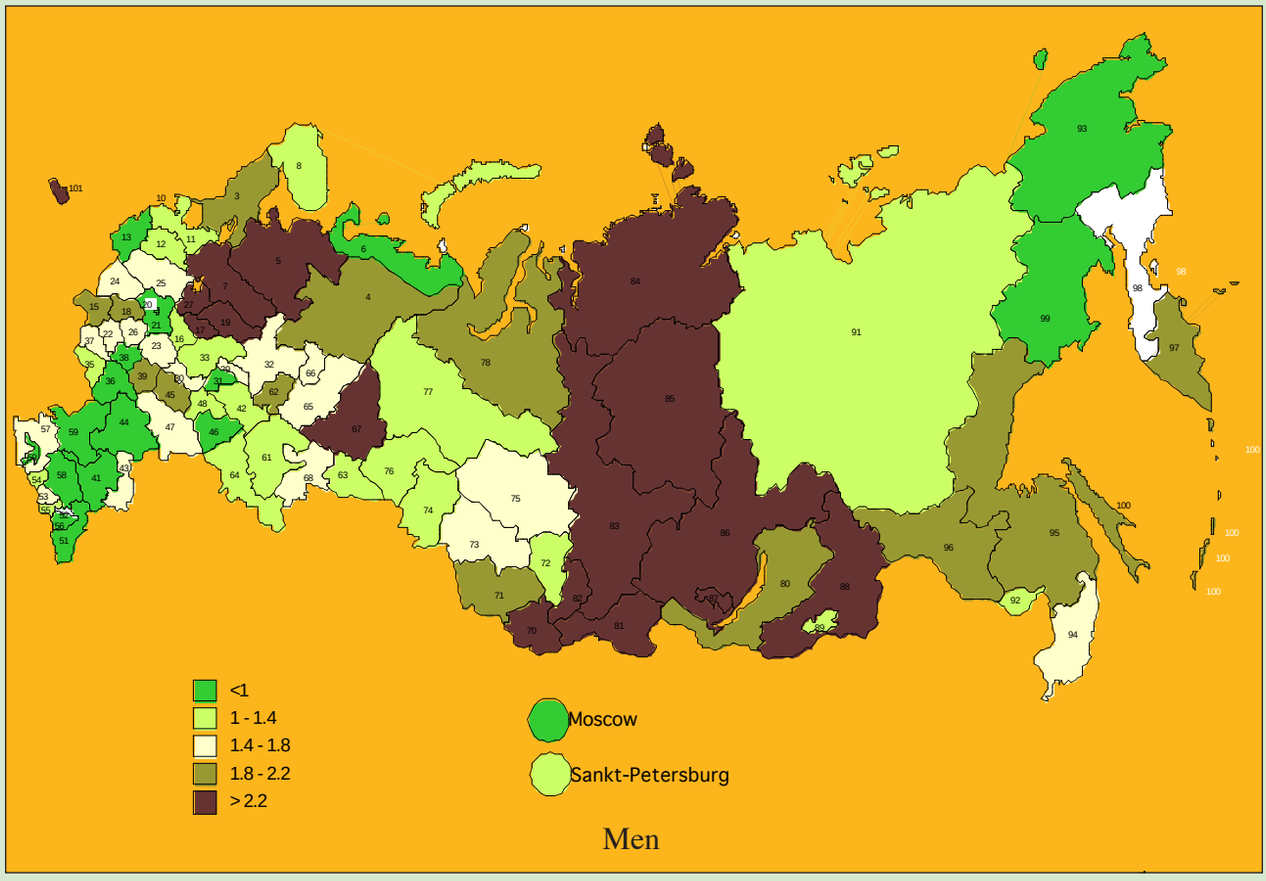


Figure 3.B. *Distribution of Russian regions by life expectancy for men and women at birth in 1990, 1994, 1998, 2005 and 2006, %*



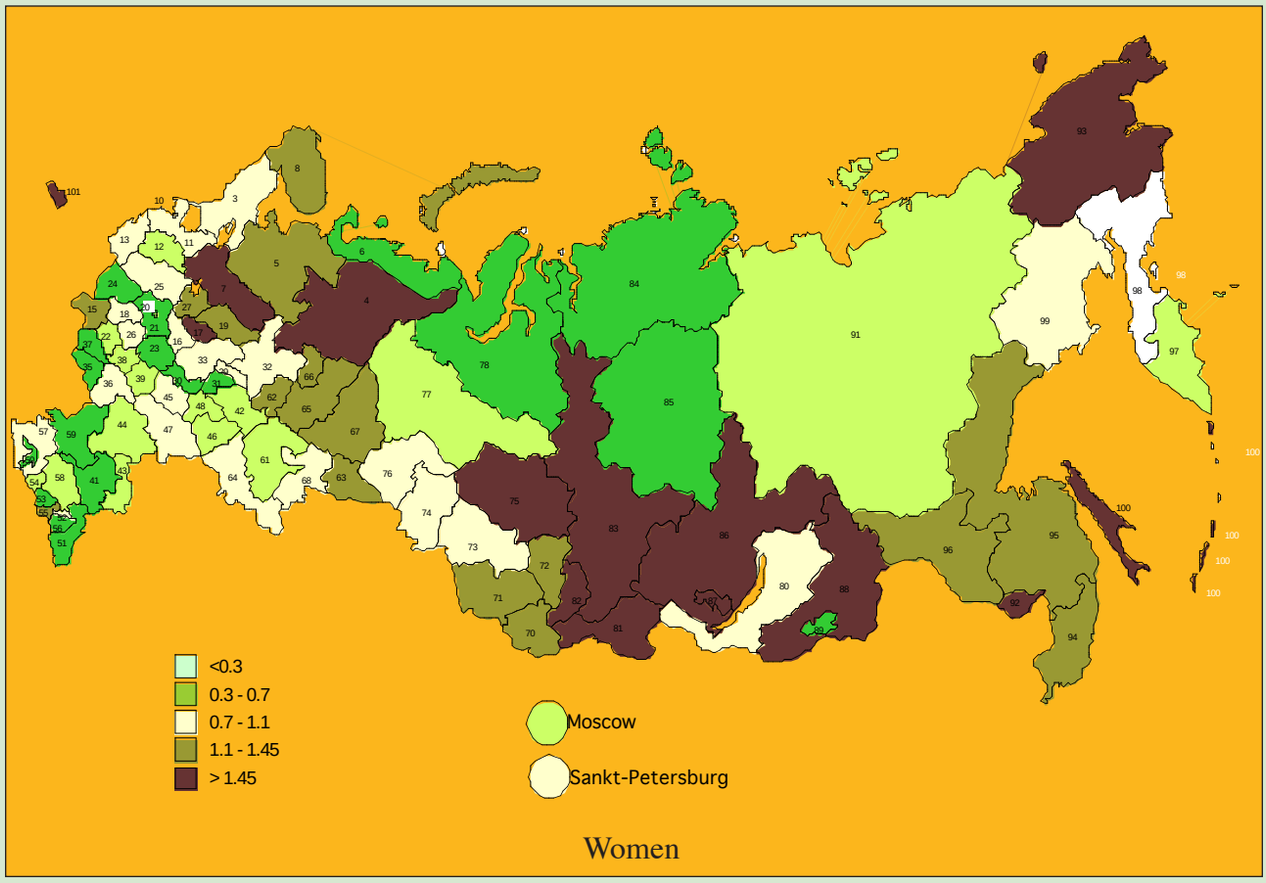


Figure 3.C. *Increase of life expectancy in 2005-2006 in Russian regions, years*

between 1995 and 1990. In 2006 the situation looks more like the end of the 1990s with increasing concentration and asymmetry.

Mortality levels declined throughout Russia in 2005-2006, but rates of decline in different regions varied (Figure 3.B).

The largest improvements in male life expectancy were in the Republic of Tyva, Krasnoyarsk Region, Irkutsk Region, Kaliningrad Region, Khakassia, Ust-Orda Buryat District, and Koryak Autonomous District. The smallest improvements were in regions of the Northern Caucasus, in Moscow and in the Chukotka Autonomous District. The problem of Chukotka requires special study as alcohol-related mortality has increased there. The role of alcoholism in mortality levels in Moscow and the Northern Caucasus is less significant.

Female life expectancy has seen strong growth in Chukotka. Other leading regions by development of female life expectancy are Krasnoyarsk, the Republic of Tyva, Sakhalin Region, the Jewish Autonomous District, and Khakassia. Female life expectancy has declined in the Nenets, Yamalo-Nenets, Agin-Buryat, Taimir, Evenk, and Koryak autonomous districts, as well as in the republics of Adigeya and Kabardino-Balkariya. It may be that measures to improve road safety and to resist alcohol-related mortality had little impact on women in these regions, while overall negative tendencies in the regions remained unchanged.

tancy has been seen in some Eastern European countries. Historical highs for male life expectancy, achieved at various times before 1990, have recently been surpassed in 6 out of 12 countries (Figure 3.4), and new records for female life expectancy were set in 9 out of 12 countries. Only in Russia, Belarus and Ukraine best achievements after 2000 failed to regain levels, seen before the mortality crisis gathered strength.

It seems that the mortality crisis in these three countries was deeper, more chronic and harder to escape than that of neighboring countries, which had developed in similar political and economic conditions in the post-war period. Nevertheless, the experience of Eastern European countries shows that the mortality crisis can be addressed, and that a sustainable positive trend is achievable.

3.3. Russia's main problem is high mortality in middle age

The crisis has affected mortality in all age groups, though to different extents.

3.3.1. Child mortality is decreasing

Infant mortality. Since the mid-1960s infant mortality trends in Russia have been contrary to global trends for countries with a similar level of development.

During the 1960s, Russia was mid-ranking by infant mortality levels among European countries (subsequently making up the EU-15). But reduc-

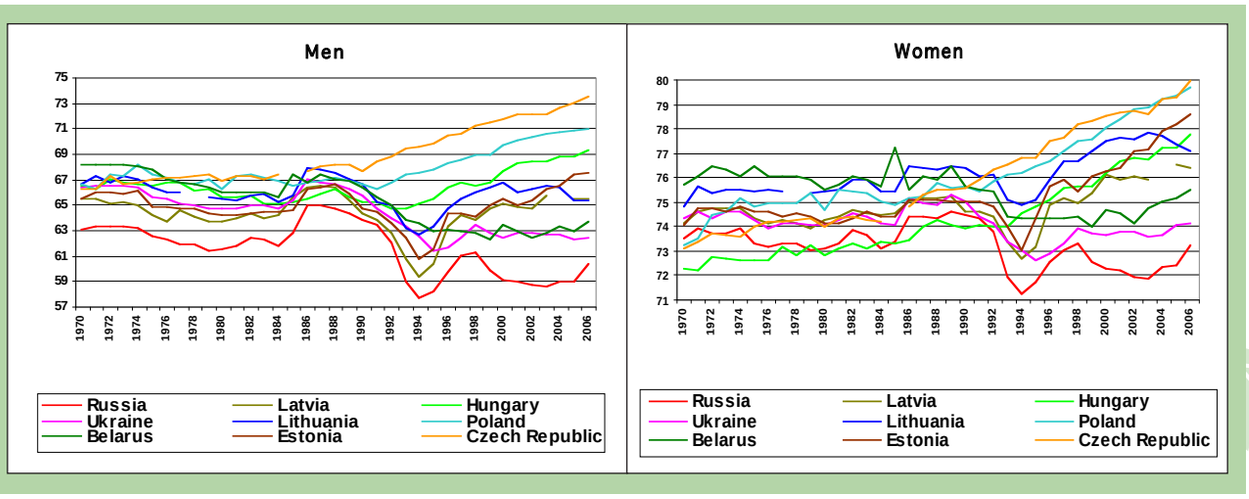


Figure 3.3. *Life expectancy in several countries of Eastern Europe, 1970-2006, years*

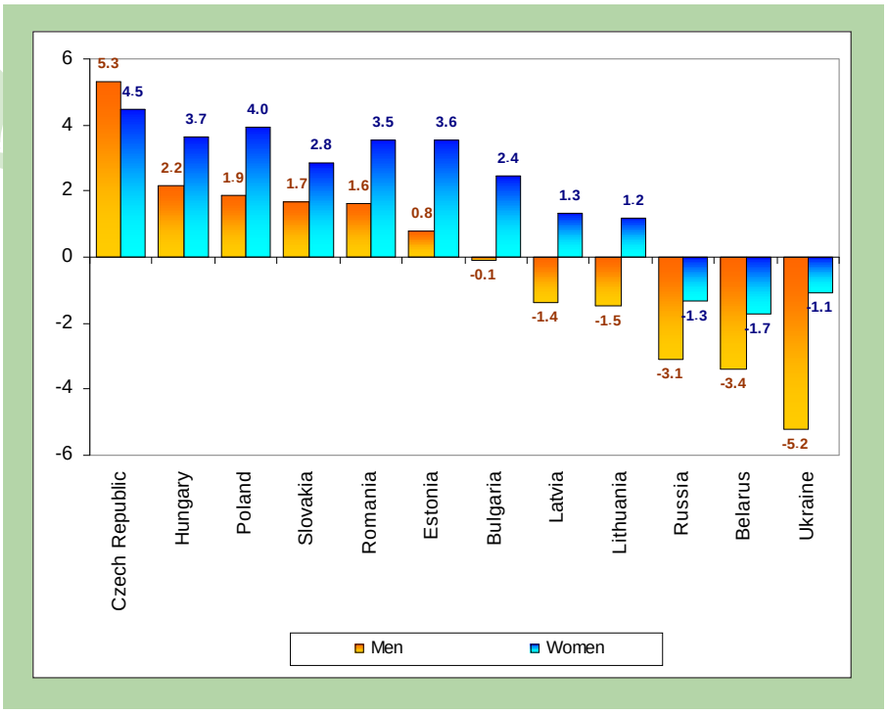


Figure 3.4. *Difference between maximum life expectancy peaks before 1990 and after 2000, years*

tion of infant mortality in Russia then slowed down, and there was even some increase of the death rate among newborns in the first half of the 1970s. Most other countries were still making rapid progress at this time and Russia was overtaken by several of them. By the middle of the 1980s, infant mortality in Russia was three times worse than in countries of the European Union, the USA and Japan (Figure 3.5).

These negative trends in infant mortality were broken at the end of the 1970s: the indicator declined steadily through the 1980s and at quicker rates through the 1990s. But, on the whole, Russian infant mortality trends in recent decades have been weak and the country has a long way to go in order to regain its ranking among developed countries on this count. At present Russia is placed near the bottom of the distribution of developed countries by infant mortality (Figure 3.7) with indicators three times worse than in majority of these countries. It should also be mentioned that Russia still maintains an archaic definition of "live-birth" (despite formal adoption in 1993 the definition of life-birth recommended by WHO) , according to which a newborn child of 500-999 grams, who is born alive, but dies before the age of 7 days, is not considered to be live-born and is not registered by the civilian registrar. If Russia really accepted the WHO definition of live-birth, the level of infant mortality in Russia would be even higher than official statistics suggest.[3]

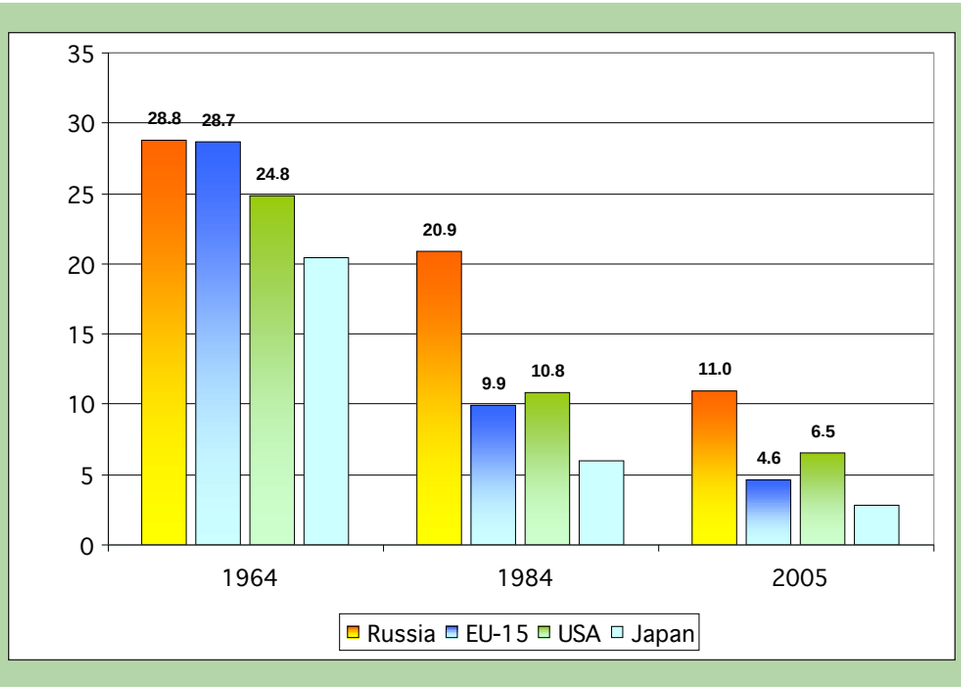


Figure 3.5. *Infant mortality rate in Russia, the European Union (EU-15), the USA, and Japan, per 1000.*

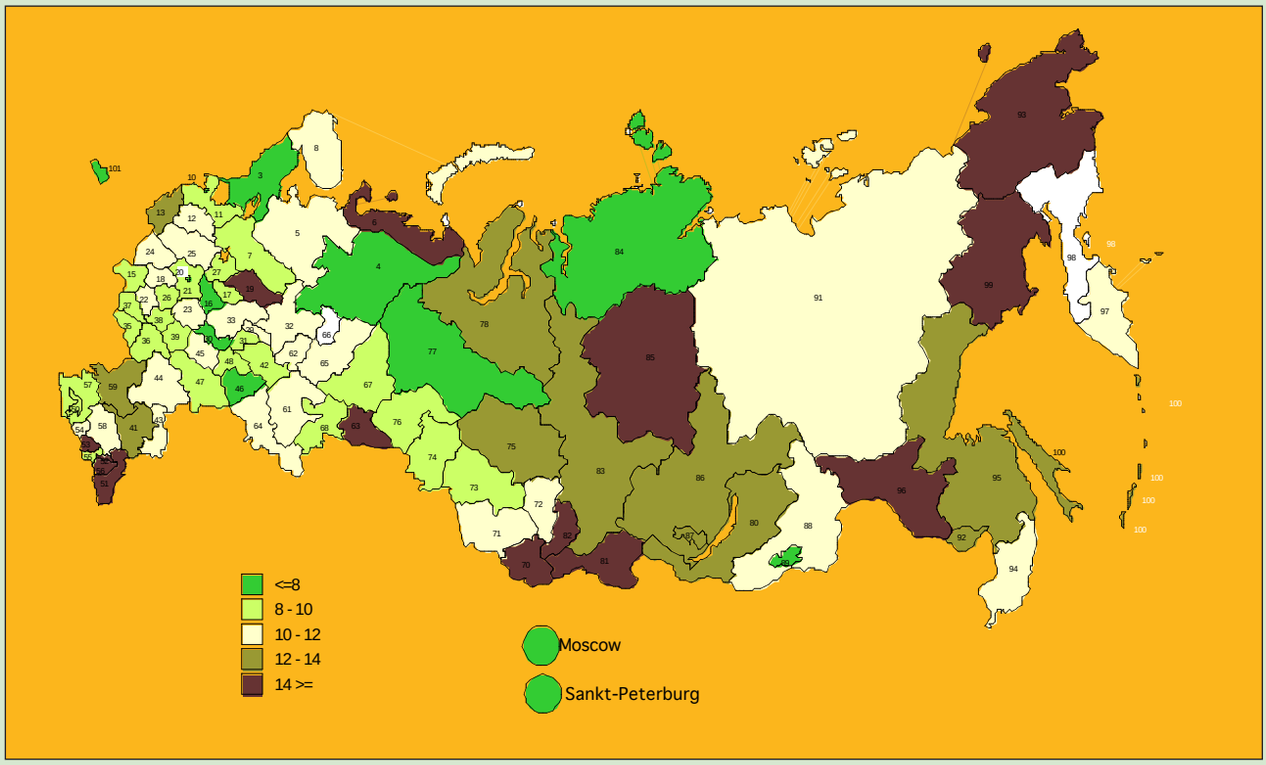
But, despite all this, it should be understood that current levels of infant mortality in Russia are low by historical standards, and do not make the main contribution to the problem of Russian mortality.

Mortality of children at ages from 1 year to 15. Trends in mortality children at age 1-5 are similar to trends in infant mor-

Box 3.2. Regional inequality in infant mortality

Though infant mortality in Russia has been in steady decline through the last decade, there are significant regional differences (Figure 3.D). In 2006 the gap between maximum and minimum indicators in different regions was 26.6‰ (minimum in St. Petersburg (4.7‰), maximum in Ingushetia (31.3‰)). This is a wider gap than existed in the 1990s. While regions with lowest levels of infant mortality are catching up with developed countries, regions with high infant mortality are lagging further and further behind.

Highest levels of infant mortality are in Siberia and the Far East, while the lowest are in the North-West and Central Federal districts. A total of 26 subjects of the Russian Federation registered a growth of infant mortality in the period from 2005 to 2006. The biggest increase (6.3‰) was registered in Kalmykia.



Picture 3.D. *Infant mortality rate in regions of Russia, 2006, per 1000*

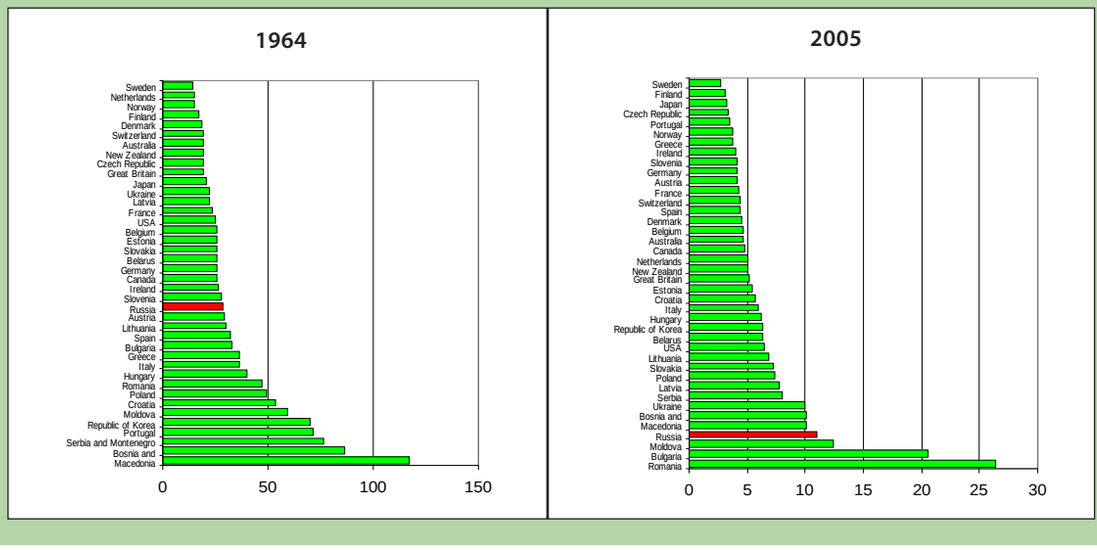


Figure 3.6. *Infant mortality rate in several developed countries in 1964 and 2005, per 1000.*

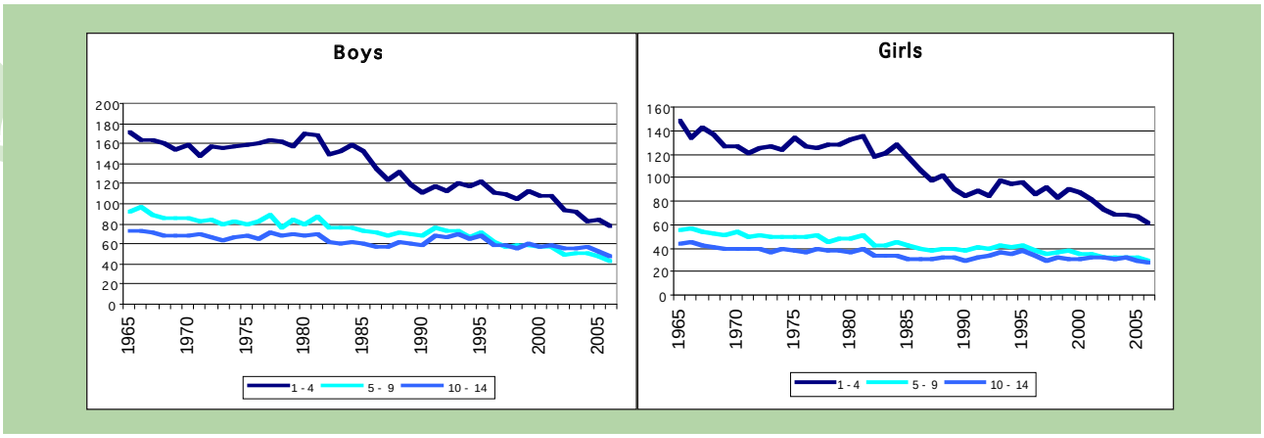


Figure 3.7. *Mortality among boys and girls at ages below 15, 1965-2006, age-sex specific death rate per 100,000*

tality: the indicator stagnated in the 1970s, then slowly declined (Figure 3.7), but not sufficiently to prevent a widening gap with the majority of developed countries, where mortality among young children was declining much faster. According to WHO data for 2005, the indicator for under-5 child death in Russia (14.1 per 1000) was 1.9 times higher than in Hungary or Poland (the difference was only 1.1 times in 1980), 2.4 times higher than in Great Britain (2 times in 1980), 2.8 times higher than in Austria (1.6 in 1980), 2.9 times higher than in Ireland (2.0), 3 times higher than in Spain (1.9) and Greece (1.4), 3.4 times higher than in Finland (3.1), 3.7 times higher than in Norway (2.9) and 4.6 times higher than in Iceland (2.8)[4].

The mortality rate among children aged 5-15 has been in steady decline (Figure 3.7). During the last forty years (1965 to 2006), mortality among 5-9 y.o. children halved and mortality among children of 10-14 y.o. declined by about 40%.

3.3.2. Mortality among working-age people: overall long-term growth with occasional respites

Very unfavorable mortality trends among the working-age population of (at ages from 15 to 60) are the central feature of Russia's mortality crisis. The four decades since 1964 have seen an overall decline of child mortality, albeit with interruptions, and the widening gap compared with other countries in this respect has been mainly due to faster declines in these countries than in Russia. But working-age mortality in Russia, and particularly its male component, has been predominantly increasing. Episodes, when working-age mortality decreased, were only short-term respites.

Mortality among all age groups of men from 20 to 60 and of women from 30 to 60 was increasing through the 1970s. At the beginning of the 1980s there were signs of a mortality decline for all ages, which became more pronounced after 1985, during anti-alcohol campaign. But growth trends resumed at the end of the decade, leading to a mortality peak in 1994. This peak, and the decline which followed, suggest a concentration in 1993-1994 of deaths in risk groups, which were postponed from the previous period, and of premature deaths in groups, which would be at high risk later on. This peak subsided, but the crisis endured, and the factors that were fuelling high mortality among people of working age continued to operate, as illustrated by the upward movement of all curves in the graph below (Figure 3.8).

Death rates have been in decline again since 2003, but this reduction is reminiscent of that seen in the 1980s, which failed to break the long-term trend. And besides the latest improvements still leave mortality levels much higher than at any time before its climb in the early-1990s and already then much exceeded corresponding indicators for the developed countries. So it is wrong to pretend that we have even begun to resolve the mortality crisis.

3.3.3. Mortality of the elderly: Long-term stagnation

A specific feature of the Russian mortality crisis is that it affects the most naturally vulnerable age groups to the least extent. This has already been seen with respect to child mortality. The other most vulnerable age group – the elderly – have not matched the decline in mortality seen in recent decades among children, but there has also been no increase in mortality among the elderly (Figure 3.9) excepted women older 85 and men older 90 (the latter not shown in the figure). The trend in other age groups has been considered as fluctuation around a more or less stable level.

3.4 Causes of death make the Russian mortality structure atypical

3.4.1. Causes of death in the "Western" mortality structure, and the Russian anomaly

The current age pattern of Russian mortality is the result of the differences in mortality trends in various age groups, described above. This pattern differs greatly from the typical mortality pattern observed in all countries with high life expectancy.

The Russian model of mortality combines relatively low infant mortality – typical for countries that have high expectancies, – with adult mortality levels, which significantly exceed those seen in countries where overall life expectancy is much lower. Russia's current level of infant mortality should entail that much more of its adult deaths occur after age 70, instead of which they occur at age 20-70. This anomalous age pattern of mortality is particularly typical for Russian men.

The nature of Russian mortality can be better understood by comparing age distribution of deaths in Russia and in countries with low mortality. For this purpose data on deaths, by age and by causes, were collected for 13 countries (Austria, Great Britain, Germany, Greece, Ireland, Spain, Luxemburg, Netherlands, the USA, Finland, Sweden and Japan) for the year 2005. An averaged table, formed on the basis of these data, will be conditionally referred to as the "Western model of mortality in 2005". Life expectancy for men in this model is 76.5 years and 82.5 years for women.

Comparison of Russian and western life tables by causes of death show that general unfavorable characteristics of Russian mortality are inseparably linked with its atypical structure by causes of death. In what does this atypical structure consist?

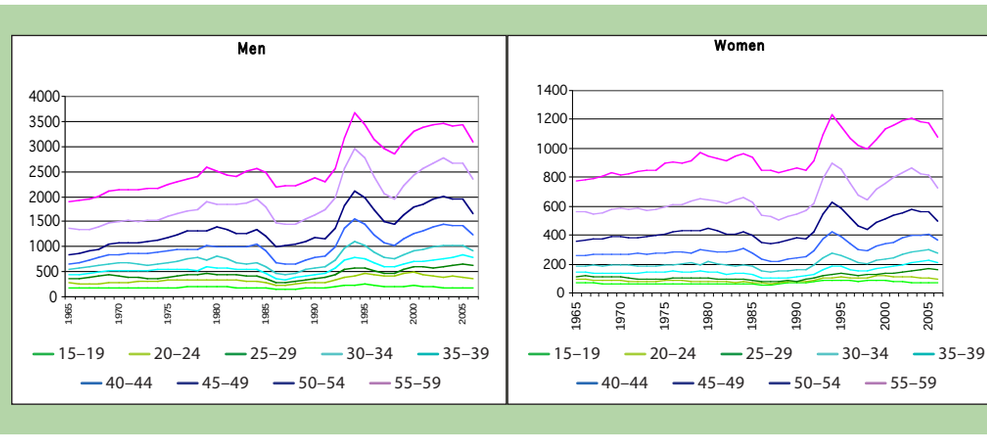


Figure 3.8. *Death rates among men and women aged 15-60 by 5-years age groups, 1965-2006 per 100,000*

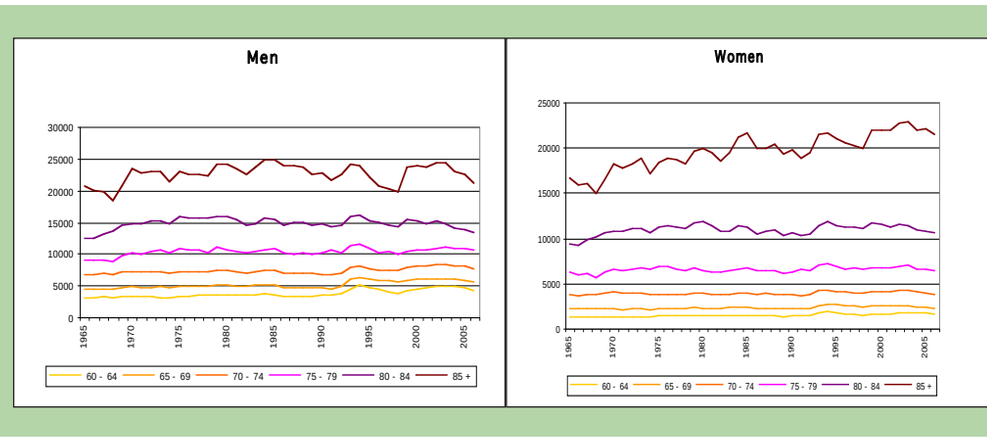


Figure 3.9. *Mortality among men and women at age 60 and older, 1965-2006, per 100000*

Table 3.1. *Causes of infant mortality in Russia, 1970-2006 (per 10,000 live-births)*

	1970	1980	1990	1995	2000	2001	2002	2003	2004	2005	2006
All causes	230.5	220.8	174	181.3	153.3	146.5	133.1	124.6	115.7	109.7	102.2
Perinatal	70.1	57.6	80.1	78.6	67.7	66.4	61.6	57	51.7	49.1	47.3
Congenital anomalies	30.8	34.6	37	41.8	35.5	34.4	31.3	30.2	28.5	26.9	24.5
Respiratory diseases	86	73.6	24.7	24.2	16.5	14.4	12.2	10.5	9.4	8.3	7.8
Infectious diseases	12.8	31.7	13.4	12.7	9.2	8	6.7	5.9	5.5	5	4.1
Diseases of digestive appar.	10.7	4.1	1.1	1.1	0.9	0.9	0.8	0.8	0.8	0.7	0.7
External causes	10.5	10.4	7.1	10.1	9.7	9.2	8.2	8.6	8.1	7.6	6.6
Other causes	9.6	8.8	10.6	12.8	13.8	13.1	12.3	11.5	11.7	12.1	11.1

3.4.2. Post-neonatal mortality in Russia is too high

Although, as discussed above, Russian infant mortality trends are more favorable than mortality trends at any other age, the archaic structure of causes of death, which are characteristic of the country's overall mortality, also have impact on infant mortality.

For many years (from 1970 to 2006) the general decline of infant mortality in Russia has been mainly due to elimination of causes of an exogenous nature. Mortality caused by diseases of the respiratory system has decreased 11-fold and provided 61% of the overall decrease, diseases of the digestive system have fallen 16-fold (8% of infant mortality decline), and infectious diseases by 3 times (7% of the overall improvement). Still in 1980 more than half of all deaths at ages below 1 year were from these three groups of causes of death. In 2006 this share had decreased to 12%. Meanwhile, decrease of perinatal mortality, which generally reflects defects in the system of obstetric aid and considered all over the world as the important reserve of infant mortality decrease, is 18% of the total decrease in mortality. (in second place after respiratory diseases). During the period from 1970 to 2006 in Russia mortality from this causes has been reduced by 37% but they half of all infant deaths are now occurs by these causes. Unfortunately, contribution of external causes remains noticeable though it also tends to reduction.

There has been even less success in dealing with congenital anomalies. In 1970-2006 mortality rates

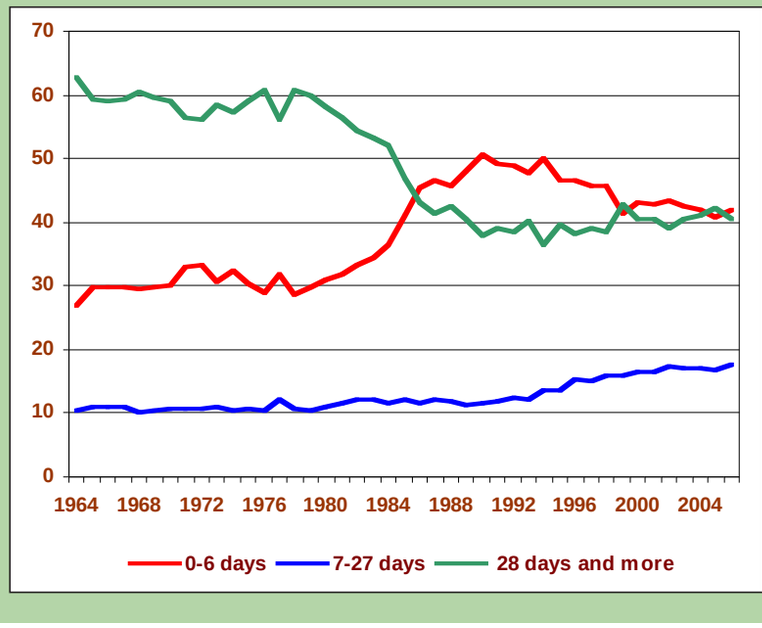


Figure 3.10. *Dynamics of age distribution of infant mortality in Russia, 1964-2006, (%)*

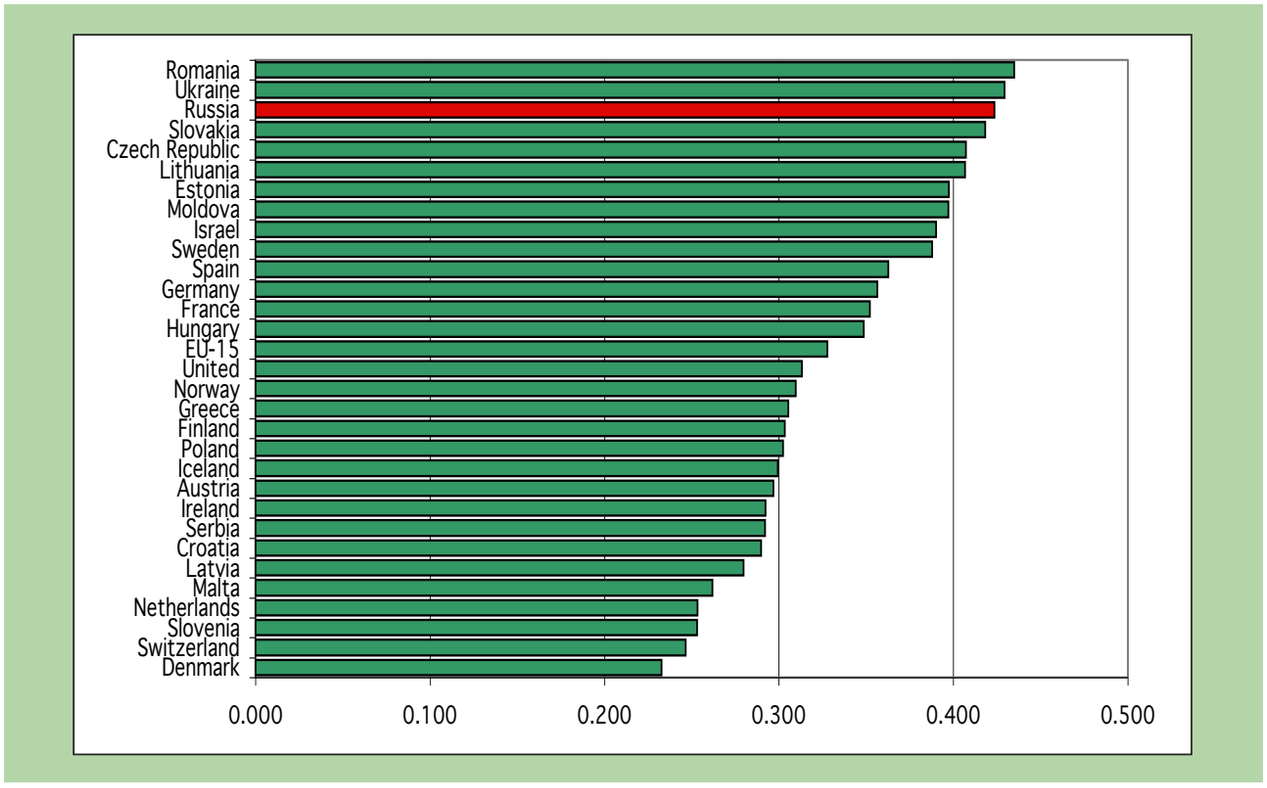


Figure 3.11. *Share of post-neonatal mortality in general infant mortality in 2005 or in nearest available years*

(per 10,000 newborn) from congenital anomalies declined by less than 20%, and they account for about a quarter of all infant deaths under 1 year of age (Table 3.1).

Though exogenous mortality decreased 9-fold in 1970-2006, remaining exogenous causes still have to be dealt with, and this is clearly not happening in Russia as quickly as it needs to.

Interrelation of child mortality in different periods of the first year of life confirms this. Reduction of infant mortality usually leads to increasing concentration of mortality in the first month of life (neonatal mortality), when the child's organism is most vulnerable and death in case of disease is very hard to prevent. As soon as a child has left this period of maximum risk behind, his chances of survival increase, and are greatly helped by the modern system of health care, which has excellent means at its disposal to defend the child's life at this development stage. So reduction of infant mortality should be accompanied by change in the interrelation between neonatal components (up to 28 days) and post-neonatal components (from 28 days to 1 year): post-neonatal mortality becomes more controllable and its contribution to general infant mortality gets smaller.

As seen in Figure 3.10, this has been the case in Russia. Transition from stagnation in the 1970s to a marked decline of infant mortality was associated with decline in the share of post-neonatal mortality, which continued at fairly rapid rates until the 1990s.

However, in the 1990s decline in the share of post-neonatal mortality in the general infant mortality came to a halt, again in stark contrast with global trends. Today Russia differs from the majority of European countries by having a large share of post-neonatal mortality in general infant mortality. But it should be noted that neonatal mortality in Russia is 2-3 times greater than in many countries of Western Europe too (Figure 3.11).

3.4.3. People in Russia die earlier than people in the West, from all causes

What is the best thing to die of? This apparently ridiculous question has a very important meaning in demography, and there is a simple answer to it: it is better to die of things, which cause death in later life. Increase of life expectancy is what happens when causes of death in early life are squeezed out by causes of death, which operate at more advanced ages. As a first approximation, we can say that the former causes are mainly exogenous and the latter mainly endogenous.

Change in the average age of death from each cause is part of this process. As medicine and development of health care advances, the age of death from all causes

Table 3.2. *Difference of average age of death in Russia and "Western model" countries*[5]

Causes of death	Average age of death, years		Difference
	Russia 2006	Western model, 2005	
Men			
All causes	60.35	76.54	16.19
of which (in inverse order of importance):			
Neoplasms	65.13	75.37	10.24
Diseases of circulatory system	67.93	79.79	11.87
External causes	43.60	56.88	13.28
Diseases of the digestive system	54.99	73.33	18.34
Diseases of the respiratory system	60.26	82.38	22.11
Other diseases	50.34	76.28	25.93
Infectious and parasitic diseases	44.17	72.21	28.04
Women			
All causes	73.23	82.47	9.24
of which (in inverse order of importance):			
Diseases of circulatory system	77.95	85.80	7.85
Neoplasms	67.46	76.69	9.24
Other diseases	68.68	83.34	14.66
Diseases of the digestive system	62.67	81.36	18.69
External causes	50.09	69.06	18.98
Diseases of the respiratory system	66.13	85.49	19.37
Infectious and parasitic diseases	43.07	79.28	36.21

Table 3.3. *Ranking of causes of death by average age of death*

	Causes of death	Average age of death, years		Causes of death	Average age of death, years
Men					
Russia 2006			Western model, 2005		
1	Diseases of circulatory system	67.9	1	Diseases of the respiratory system	82.4
2	Neoplasms	65.1	2	Diseases of circulatory system	79.8
3	Diseases of the respiratory system	60.3	3	Other diseases	76.3
4	Diseases of the digestive system	55.0	4	Neoplasms	75.4
5	Other diseases	47.7	5	Diseases of the digestive system	73.3
6	Infectious and parasitic diseases	44.2	6	Infectious and parasitic diseases	72.2
7	External causes	43.6	7	External causes	56.9
Women					
Russia 2006			Western model, 2005		
1	Diseases of circulatory system	77.9	1	Diseases of circulatory system	85.8
2	Other diseases	69.1	2	Diseases of the respiratory system	85.5
3	Neoplasms	67.4	3	Other diseases	83.3
4	Diseases of the respiratory system	66.1	4	Diseases of the digestive system	81.4
5	Diseases of the digestive system	62.7	5	Infectious and parasitic diseases	79.3
6	External causes	50.1	6	Neoplasms	76.7
7	Infectious and parasitic diseases	43.2	7	External causes	69.1

rises. One of the main problems of Russian mortality is that, compared with world standards, successes in this direction have been very modest, and the age of death from all groups of causes, remains much lower than in more advanced countries (Table 3.2).

Table 3.2 shows, firstly, that there is a huge difference in favor of the Western model in the average age of death from all groups of causes and, secondly, that the hierarchy of causes of death qua "preferable" (i.e. later-acting) causes is very different in Russia and the West (Table 3.3).

In Russia men and women who die from cardio-vascular diseases live the longest lives (although not as long as in the West countries). In the West countries cardio-vascular disease is the preferable cause for men only, while women tend to have a longer life span if they die from respiratory disorders. Overall, though, circulatory diseases are the preferable cause of death.

In Russia the second place for men and the third place for women, in terms of long life, is taken by death from cancer while in the "Western model" cancer rates fourth for men and sixth for women.

External causes are by far the youngest cause of death in the Western model, but in Russia the bottom place in the list for women is taken by infectious diseases.

Average age of death from each cause, is determined by distribution of deaths from that cause across various ages. In Russia this distribution is shifted towards younger ages. Age distribution of deaths from diseases of respiratory diseases is an example. In the West it is one of the most "preferable" causes of death, but in Russia one of the least "preferable". Figure 3.12 shows the number of deaths from respiratory diseases in Russia and the West. In the West only 3.6% of men's death and 2.8% of women's deaths from these diseases happen before age 60 y.o., while the figures in Russia are 44.5% and 30.7%, respectively.

Respiratory diseases are not an isolated case. In Russia all causes show a distribution shift towards young ages as compared with developed countries that have low mortality.

3.4.4. Which causes of death need to be addressed first?

The second important feature of Russia's atypical mortality structure is a very high share of deaths from causes with a relatively young age of death.

This is less apparent from a direct comparison of the Russian and Western distributions of deaths by their causes, but is better shown by simple comparison of average ages of death from each cause, as represented in Table 3.2. Table 3.4 does not present clear grounds for saying that the Western distribution is better than the Russian distribution.

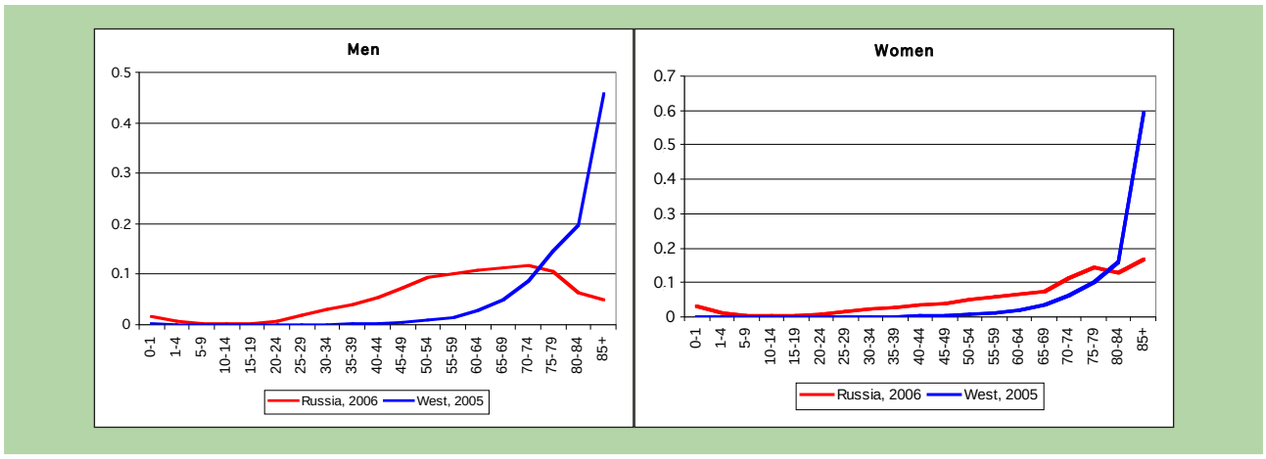


Figure 3.12. *Life table number of deaths from respiratory diseases in Russia and in Western countries*

The "Western model" features higher share of deaths caused by respiratory diseases. Is that a deficiency or an advantage of the Russian structure? There is no simple answer to this question. What is good for the West with its high average age of deaths from this cause that is not good for Russia where the average age of deaths caused by respiratory diseases is very low and where, therefore, keeping down the share of deaths from this cause is desirable. In the West respiratory diseases cause the deaths of 127 men per 1000, but only 14 of them are at age younger 70 In Russia diseases of the respiratory system kill 51 per 1000 life lost, but 34 of them are at age younger 70. If the share of deaths from this cause in Russia was similar to that in the West, it would mean 85 deaths age below 70 vs. 14 in the West.

The share of deaths from infectious diseases is almost equal in Russia and in the West: for men it is 23 per 1000 and 21 per 1000, respectively. But in Russia 22 of these 23 are dead at age below 70, while in the West that is only the case for 7 out of 21.

The chances of dying from cardio-vascular diseases are much higher in Russia than in the Western model. But that also cannot be viewed as a deficiency of the Russia distribution of causes of death, since this cause has no competitors, causes with higher average age of death. In the West there is such a competitor: among men the average age of death from respiratory diseases is higher than that from diseases circulatory system, and among women it is about the same. Adding "other diseases", which in the West are cases of death of mainly very old people, these three causes account for 604 and 697 deaths in every 1000 men and women. This is what mainly determines the long life expectancy of Europeans, Americans and Japanese. In Russia reduction of the share of deaths from cardio-vascular diseases would mean their crowding out by deaths from other causes with younger average age of death that would apparently entail reduction of life expectancy.

So the difference between Russian and Western of death distributions by causes is related to the Russian distribution of causes of death by age incidence and cannot be considered outside this context.

Nevertheless, high contribution of certain causes to general mortality is very undesirable in any case. While all causes of death are capable of being forced up the age structure to some extent, this types of success is particularly hard to achieve for causes, which are most dependent on exogenous factors – specifically, external causes of death such as accidents, suicide, homicide, etc. Healthy individuals at all ages are vulnerable to these causes, so distribution of deaths as a result of them is least biased towards higher age groups. Although diseases of circulatory system have a young average age of death in Russia, the average age of deaths from external causes is much younger: by 24.3 years for men and by 27.9 years for women. Out of 18.2% total share of death from external causes, 16% occurs at ages from 20 to 70, which is only 1.6 times less than the share of deaths from disease of circulatory system in these ages.

External causes account for an outrageously high share of mortality in Russia, particularly among men: their share in male mortality is almost three times higher than in the West (Table. 3.4). This is the main negative feature of Russian distribution of causes of death. External causes are responsible for 18.2% of male deaths in Russia, while cancer claims only 13.25% of men's lives. In the West, external causes are 4 times less probable than cancer as causes of death.

3.4.5. Mortality age-and-cause groups and health care priorities

Complex analysis of mortality distribution by causes of death and by age of death from each cause is a necessary condition for setting priorities in the health care system and society as a whole in order to address Russia's mortality crisis. Such analysis should be used to define government targets and policy by state agencies in tackling mortality, and to ensure that efforts and resources are concentrated on priority tasks.

Research carried out in the 1990s showed that unfavorable mortality, and the huge gap between Russia and most developed countries in this respect, does not relates to all causes of death or to all ages, but is concentrated in particular causes and age groups[6]. As can be seen from Table 3.5, the situation has not changed much since then. This table represents dif-

Table 3.4. *Probability of dying from main groups of causes of death in Russia and in the West*

	Men		Women	
	Russia, 2006	West, 2005	Russia, 2006	West, 2005
All causes	1000	1000	1000	1000
of which:				
Infectious and parasitic diseases	23	21	7	20
Neoplasms	132	273	122	208
Diseases of circulatory system	496	337	671	382
Diseases of respiratory system	51	127	23	117
Diseases of the digestive system	43	37	35	38
Other diseases	74	140	85	198
External causes	182	65	58	37

Table 3.5. *Excess deaths at ages before 70 y.o. in Russia compared with Western countries (per 100,000 deaths from all causes and at all ages), Russia (2006), Western model (2005)*

Age	Infectious diseases	Neoplasms	Diseases of circulatory system	of which, ischemic heart disease	Diseases of respiratory system	Diseases of the digestive system	External causes	All causes
0	34	4	1	0	73	-1	47	575
0-4	13	13	4	0	21	0	85	200
5-9	3	3	1	0	6	1	96	141
10-14	1	8	3	0	3	1	110	146
15-19	7	13	22	5	8	7	351	438
20-24	56	13	83	18	26	43	866	1157
25-29	199	22	278	71	81	140	1488	2412
30-34	244	29	496	146	144	228	1604	3010
35-39	237	41	748	288	189	270	1490	3228
40-44	225	85	1227	541	253	306	1595	3987
45-49	219	124	1820	920	319	296	1566	4633
50-54	189	237	2628	1453	377	291	1521	5547
55-59	120	315	3364	1937	344	273	1172	5785
60-64	53	-126	4048	2330	237	198	827	5292
65-69	-46	-819	4088	2336	-2	53	480	3494
Total	1554	-39	18811	10045	2078	2106	13297	40045
Women								
0	31	4	-1	0	62	-1	43	424
0-4	11	11	3	0	17	1	57	147
5-9	3	4	1	0	4	0	51	87
10-14	1	5	0	0	2	1	48	73
15-19	4	8	14	2	4	5	113	161
20-24	27	13	21	3	11	18	169	282
25-29	63	30	66	12	26	56	256	547
30-34	61	48	124	28	45	100	286	723
35-39	48	70	207	50	52	127	297	866
40-44	37	86	326	102	54	151	306	1026
45-49	24	80	525	187	53	170	340	1252
50-54	18	111	905	363	52	223	380	1750
55-59	2	117	1639	753	20	292	367	2505
60-64	-27	-18	2554	1241	-61	224	314	2999
65-69	-65	-234	3899	1936	-187	147	233	3657
Total	239	334	10283	4678	154	1512	3259	16499

Number of excess deaths

over 1000 | 500-1000 | 300-500

100-300 | 50-100 | below 50

ferences in numbers of deaths per 100,000 from main classes of causes (ischemic heart disease is separated out from the cardio-vascular diseases) up to age 70 in Russia and in the Western model. Essentially, the table shows where Russia's "excess mortality" is concentrated.

Uncolored boxes are zones of tranquility, where Russia shows no major differences compared with successful Western countries. Blue and green cells point to relatively mild problems. Yellow cells are cause for concern, but red and brown cells are what set the alarm bells ringing. Most of Russian mortality is focused here and the causal-age nexuses in these cells are what have to be addressed most urgently.

The most salient problem is middle-age mortality from external causes, especially among men. Another very significant share of excess deaths at relatively young ages is caused by cardio-vascular disease (particularly ischemic heart disease and disorders of cerebral circulation). If we could achieve a breakthrough in these two directions, the entire picture of Russian mortality would change. All current challenges for improvement of the health-care system would continue to exist (as they do in all countries) and some Russian specifics would still be visible. But the gap compared with other countries would be radically narrowed.

3.5. What prevents solution of the mortality crisis in Russia?

3.5.1. Incompleteness of the epidemiological transition

Russia's archaic mortality structure by causes of death reflects incompleteness of the country's epidemiological transition. This transition started long ago and Russia, like many other countries, successfully completed the first stage. But it has still not succeeded in implementing the second stage, which began in the 1960s in the majority of developed countries and which those countries have now also successfully completed. Indeed, the Russian situation does not accord with traditional structure of the epidemiological transition: the country's unprecedented growth of violent death and death from circulatory disease at young ages is a reversal, compared with the progress in developed countries. It would be fair to say that, in Russia, the second stage of epidemiological transition has only affected children and, possibly, some small groups of the adult population.

Success of Western countries in reducing mortality during the second stage of epidemiological transition was due to correct analysis of its main specific causes.

While main efforts in the previous stage had been directed to combating mortality due to infectious and other acute diseases, efforts in the new stage were focused on reduction and redistribution towards older age mortality from circulatory diseases, cancer and other chronic illnesses, such as diabetes, stomach ulcers, diseases of the urinary system, etc., accompanied by general reduction of mortality from external causes. Resources of the health care system were directed accordingly. Understanding of the nature of the challenges in this second stage of epidemiological transition (sometimes called the "second epidemiological revolution") helped to define a new strategy of action.

This strategy was understood very broadly: there had to be improvements in environmental protection, accident prevention, development of individual prophylaxis, campaigns against dangerous and harmful habits, and changes in people's way of life. Not all the required changes have been realized, even in the West, but much has been done. Public health, and successes in delaying mortality until older ages have reached new levels.

At this stage, the healthcare system and the general public have to change places. The initiative passes to the general public, because the main sources of risk to life and health are often no longer subject to direct influence by medicine: they come from diet, environment, habits, behavior and overall way of life. The new strategy for mortality reduction requires people to take an active part in improving their environment, way of life and health instead of passively accepting measures proposed by the health care system (epidemiological control, mass vaccination, etc.).

This has already happened to a large extent in Western countries, with corresponding changes in medical science, the system of health care, etc. Epidemiology of non-infectious diseases and even of external factors of mortality and morbidity has developed. Requirements for professional qualification of medical personal have changed. It is no longer indispensable to be a "good clinician", and it is even important to have a " non-clinical mentality", since a good clinician may be excellent at dealing with individual patients, but inefficient in addressing public health issues. The general public has become better informed about health risks and ways of averting them.

These measures have made early death an increasingly rare and unusual event, and this progress, in turn, has focused public consciousness on the value

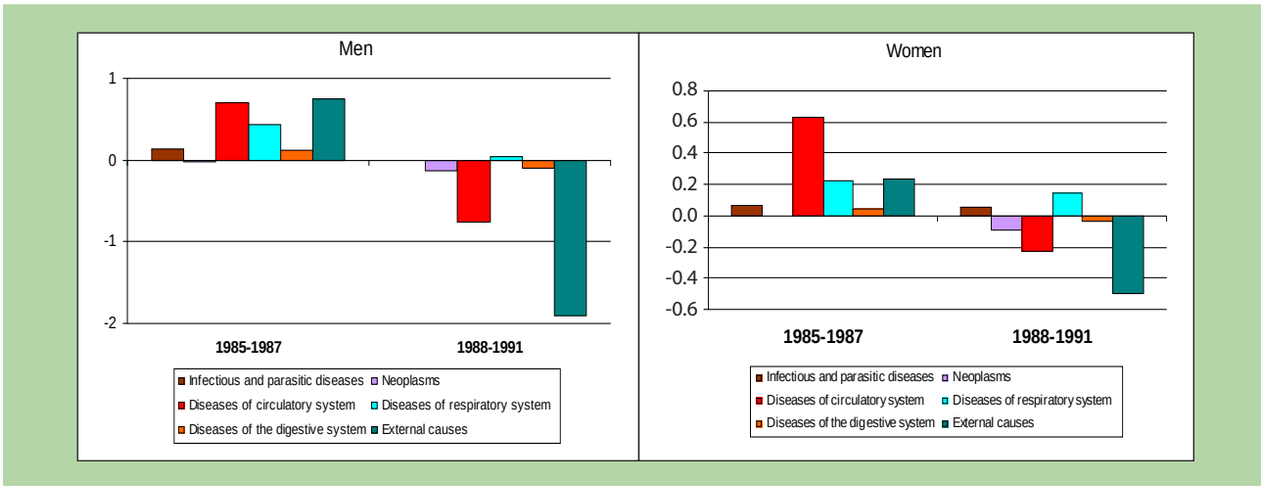


Figure 3.13. *Contribution of major classes of causes of death to change of life expectancy during the anti-alcohol campaign, years*

of life and good health, justifying increased expenditure on public health and even making people demand such expenditure.

Unfortunately, Russia is still at the beginning of the second stage of epidemiological transition. The emphasis is still on paternalistic efforts of the health care system, the medicalist approach continues to triumph, placing main hopes in new types of treatments, development of new medical technology, etc. Meanwhile, there has been very little progress as regards self-preservative behavior by the general public, and this is the main obstacle to reduction of mortality.

The clearest example of dependence between the level of mortality in Russia and lifestyle and mass behavior is, of course, hazardous drinking. Nothing better illustrates the connection between mortality and heavy drinking than trends in the death rate during the years of the government's anti-alcohol campaign. Over a period of three years (1985-1987) life expectancy for men increased by 3.1 years and almost returned to its maximum level of 1964, while the indicator for women rose by 1.3 years to a historical maximum in Russia. The campaign was not continued, but the positive impact of reduced alcohol consumption is unmistakable. There is a suggestion, which requires additional analysis and confirmation, that the latest decline of mortality, in 2004, was also the result of certain restrictions on alcohol consumption.

In any case, experts are certain that the "alcohol factor" makes a very large contribution to the level of early deaths from circulatory diseases and external causes. This was conclusively proved by analysis of the part, which decline of these two causes played in overall mortality decline at the time of the anti-alcohol campaign and in resurgence of mortality when the campaign came to an end. Change of the mortality level from these two groups of causes determined total life expectancy dynamics at that time[7] (Figure 3.13). According to data of an epidemiological survey, carried out in a typical Russian city (Izhevsk), 40% of deaths of men aged 25-54 are related to hazardous drinking[8].

Certainly, impact of alcohol on mortality from circulatory diseases and on overall mortality needs further investigation. For the moment, this issue is not being taken seriously by the Russian government or Russian science, and para-scientific literature has even thrown up such a term as "the myth of alcoholization"[9], claiming that : "the supposed main role of heavy drinking in Russia's hyper-mortality epidemic is a myth, propagated by ignorance or ill design"[10].

Overall, the situation with alcohol-related mortality illustrates underestimation of new problems, which have arisen in the second stage of epidemiological transition, when successes in combating mortality and ill health (associated with behavior and life style of the greater part of the population) are proving much harder to achieve than previously.

3.5.2. Archaism of the Russian social structure

There are major social reasons, which explain why Russia is underestimating its public health problems. The main point is that the epidemiological transition is primarily a social – and not a medical – process, requiring a certain state of society, which has not yet been achieved in Russia.

Everywhere in the world the standard bearer for behavior stereotypes and associated values, favoring better health and longer life, is the middle class. The principles and values of new self-preservative behavior gradually came to maturity as the European

bourgeoisie took shape, and were transmitted to ever broader social strata, mainly in cities. When the time came, these strata were ready and willing to adopt new behavioral stereotypes and to influence behavior in other parts of society.

Analysis of social differentiation of mortality in Russia shows that we also have strata, which are committed to life-preserving behavior on the model of the European middle classes. These are Russian social groups with higher levels of education, usually engaged in intellectual work (Russia's "white collar workers")

A series of studies carried out recently gave assessments of mortality in these social strata. In particular, it was shown that the decline in life expectancy of adult Russians, both men and women, between 1970 and 1989 was mainly due to mortality dynamics among manual workers, while mortality trends for those in white-collar jobs had a positive contribution[11]. In periods of mortality growth, aggravation among persons with higher education was minimal, while in favorable periods their life expectancy was similar to that of less educated groups. Analysis of the mortality structure by causes in 1989 depending on level of education showed that difference between the highest and the lowest educational strata was linked with the same causes of death, which have determined growth of mortality in Russia since 1965, and which represent the biggest differences between Russian mortality and that in developed countries[12]. A link between level of mortality and belonging to a certain social class is typical for children as well as adults (this is not surprising as health and mortality of children cannot fail to be closely connected with behavior of their parents[13]).

However, people with a middle-class life style are not as numerous in Russia as in the West and their self-preservative behavior has failed to convince the rest of the population. If the Russian middle classes were more numerous and if their behavior was imitated, there could be a very large reduction of mortality levels and increase of overall life expectancy in Russia. So continuation and completion of reforms for modernization of Russia's social structure, development of the middle classes, and creation of the liberal economic and political environment, which they require for survival, is a key requisite for solving Russia's mortality problem and enabling the country to catch up with most developed countries.

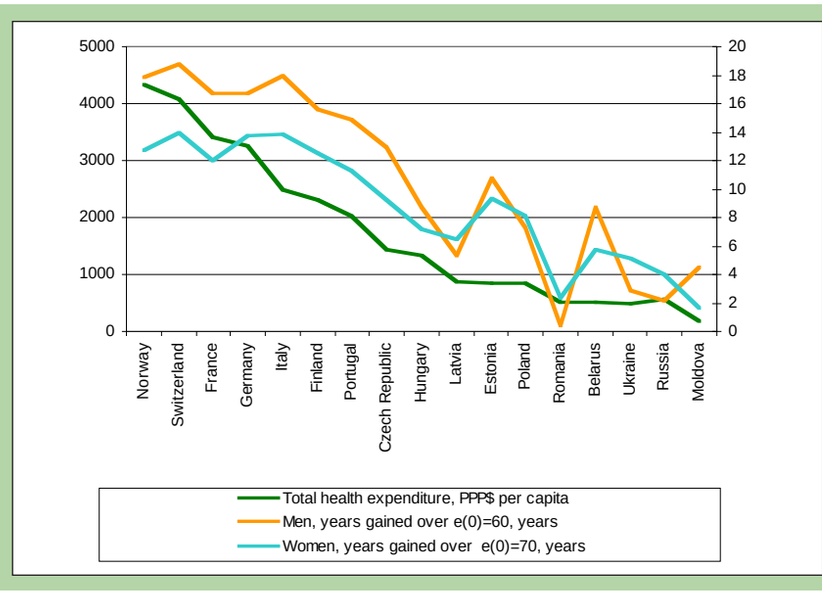


Figure 3.14. *Health care expenditure in USD by purchasing power parity PPP$ (left scale) and years gained life expectancy over 60 years for men and over 70 years for women, (right scale), 2005.*

3.5.3. Expenditure levels are inadequate

Another key factor, which is preventing completion of epidemiological transition in Russia, is inadequate spending on health protection and health care.

The achievements of Western countries would not have been possible if increase in the importance attached by people to healthy and long life had not been accompanied by redistribution of material resources. It was understood that healthier and longer lives had to be paid for and spending on health rose in both absolute and relative terms. As discussed in more detail in Chapter 9 of the present Report, Russia has never benefited from such an increase in spending, and current spending on health care in Russia is incomparably less than in the majority of developed countries. Certainly, money is not a panacea, but correlation between the level of spending and the level of mortality undoubtedly exists.

Figure 3.15 shows correlation between per capita spending on health care in various countries and the number of years gained as compared to the level e(0)=60 years for men and e(0)=70 years for women.

The graphs on Figure 3.14 show that every year of life-expectancy increase must be paid for. The lower the spending, the less the increase. Life expectancy for men in Russia in 2005 was short of 60 years, while in 17 of 33 represented countries it exceeded this lev-

el by 15-20 years. But it is also true that Russia's data look even worse than they should do at the current level of spending.

In any case, it would be unrealistic to expect the same progress in health and mortality indicators as has been seen in countries, where spending on health exceeds that in Russia by several times. Soviet experience showed that extensive growth of some key characteristics of the health care system (increase of the number of medical personnel, number of places in hospitals, etc.) is inefficient and does not lead to growth of life expectancy unless supported by faster growth of spending to raise wages of medical personnel and to improve health infrastructure.

3.5.4. The health system needs reform

Low efficiency of the health care system reflects insufficient financing and absence of modern strategy, but the system also suffers from poor management and organization, which fails to ensure feedback from society and efficient use of the financing, which is available. The issue of health care reform has been pending for many years, but there has been little progress in implementation, and many essential mechanisms for improvement of health and lowering of mortality are not in place

The key problem is lack of efficient feedback between those who provide finance, those who provide treatment and those who are treated. In the West these three parties work together to further health care development based on the principal, "money follow the patient" and, to some extent, by participation of the consumer of medical services in payment for those services. At the same time, state guarantees of medical care are firmly in place, and the only issue to be resolved is the best way of structuring those guarantees.

Foreign experience offers plentiful material for selecting and adapting new models of medical provision and financing. Various Western countries use different approaches, although long-term evolution has given rise to a number of common features.

Medical care in most Western European countries is mainly (up to 90%) financed from the budget, i.e. by taxation. Financing from non-budgetary medical insurance funds, paid in by employees, employers and state subsidies, is prevalent in Germany (78%), Italy (87%), France (71%), Sweden (91%), and also Japan (73%). In the USA, Israel and South Korea the share of private financing of medical care is high, including voluntary medical insurance and direct payment for medical services by patients. All these systems are subject to criticism, but they are generally efficient and offer certain guarantees to those in need of medical care.

In Russia at present there are no clear guarantees: health care guarantees under law have only declarative nature. This is due to lack of financing and policy confusion. People who need medical care are increasingly required to pay for it out of their own pockets. According to statistics, such payments now represent 32% of overall (state and private) spending on health care[14]. And the state is failing to guarantee quality of the services, which people are increasingly expected to pay for.

So there are two priorities at present: to increase the amounts spent on health care, and to make the whole system more socially and economically efficient. These are among the most important tasks for Russian society in coming years and there is no time to waste in addressing them.

3.5.5. Lack of scientifically grounded policy

In February 2008 the Russian Ministry of Health Care and Social Development announced creation of a special internet site for discussion of the concept of health care development up to the year 2020. The Ministry expressed hope that "representatives of the general public as well as medical specialists" will take part in the discussion.

This is a very democratic approach, but there are some doubts about its efficacy. Such an approach is suitable for entirely new challenges, on which no work has yet been carried out. A "brain storm" with participation of non-experts then allows quick formulation of a rough plan of action, which can be followed by expert investigation of difficulties, which are non apparent to the untrained eye, and by proposal and testing of solutions. At the latter stage a community of experts, which is alone capable of designing efficient mechanisms, will already be in place. Reduction of mortality is a no less complex problem than construction of a bridge or creation of a spacecraft. It would be strange for the bridge builders to ask advice from people who are standing on the shore, even if these are the people, for whom this bridge is being constructed.

Reduction of mortality is not a new challenge for Russia. In 40 years of negative trends, we should have progressed far beyond the initial stages of understanding the problem, and sufficient knowledge should already have been accumulated. There is no shortage of specialists to put forward a strategic concept for breaking the trend. Which is not to deny, of course, that much can be gained from presenting the concept (or, possibly, several variants of the concept) for discussion by representatives of broad society – the issue here, after all, is not construction of a bridge, but solution of a complex social problem,

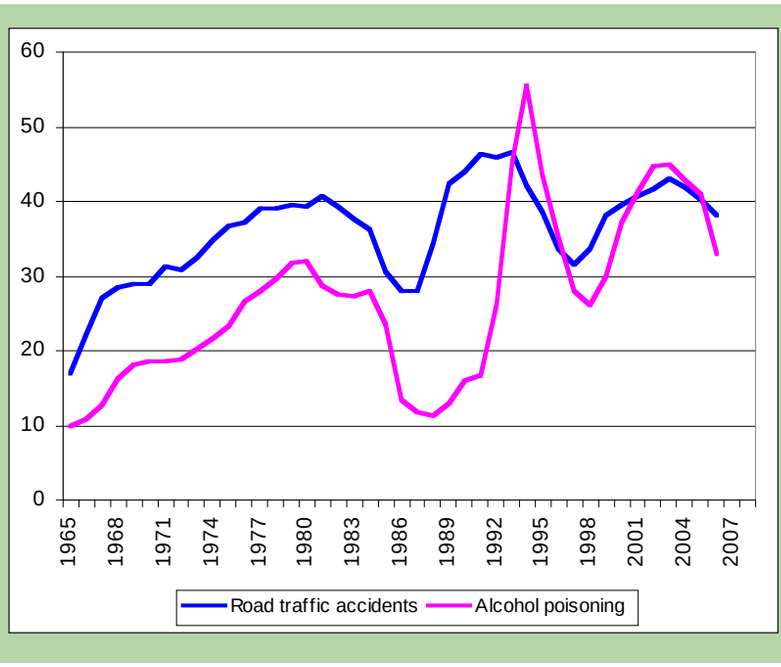


Figure 3.15. *Russian deaths from transport accidents and alcohol poisoning, 1965-2006, 1000 persons*

which cannot be achieved without active participation of the general public.

But the approach chosen by the Ministry of Health Care and Social Development is best proof of the fact that we are, in fact, still only beginning to come to terms with the problem, and that the expert community is not ready to offer a solution. No serious preparations have been made and there does not seem to be an awareness that such preparations are necessary.

This is apparent from conceptual documents, which have been produced to date concerning the healthcare system. They are filled with formulaic expressions, usually with use of the same verbs and verbal expressions – "to ameliorate", "to promote", "to implement", "to reduce through increase", "to increase through reduction," etc. They try to run through all the issues, but refuse to admit that the issues are changing and that it is useless to set new objectives without taking account of objectives attained to date and without reviewing priorities. Reading these documents, there is usually nothing to indicate whether they were written in 1960, 1980 or 2008 – they fail to reflect specifics of the problems and of the moment, for which they are intended. They could be written by any government official, completely unacquainted with the essence of what is at stake. Priorities are not defined at all or are defined in a cursory fashion, and it is often hard to see any reason why certain priorities have been discussed and others omitted.

For example, the demographic policy concept adopted in 2007 for the period until 2025 sets reduction of mortality in road traffic accidents as one of the main tasks, and the importance of combating this particular cause of death has been cited repeatedly by officials. It is not clear why, of all the external causes of death, which need to be combated, the emphasis should have been placed on road accidents. They are undeniably a serious problem, but deaths due to road accidents were only about 9% of all Russian deaths from external causes in 2006 (13.55% if we take account of accidents relating to all forms of transport). Worldwide, road accidents are indeed the largest cause of death from external causes, but that is not the case in Russia, because we have such high death rates from other external causes, such as alcohol poisoning, suicide and homi-

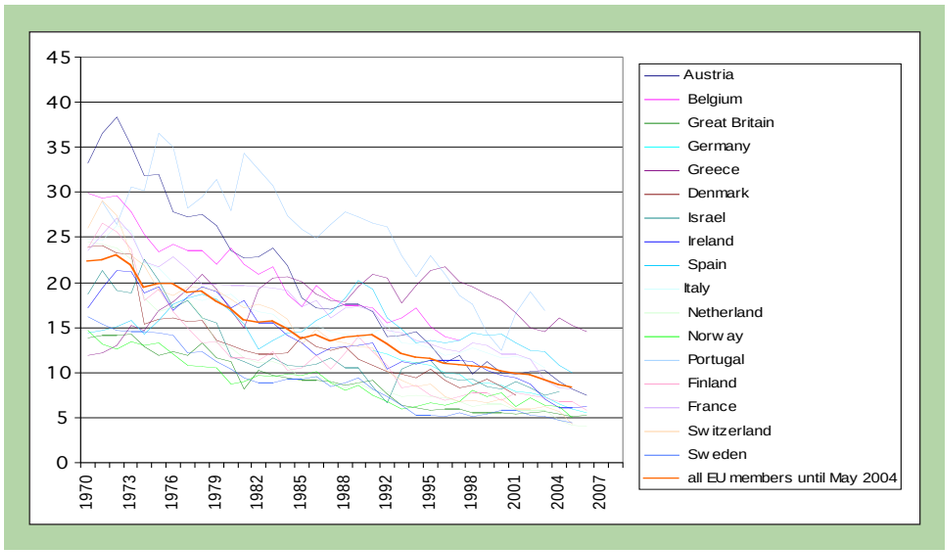


Figure 3.16. *Standardized death rate from road traffic accidents in several countries, 1970-2006 per 100,000 population*

cide. In 1965-2006 over 1.5 million Russians were killed in road traffic accidents and the annual number of road deaths has increased by 2.3-2.4 times since the since the middle of the 1960s (Figure 3.15). They are also a major cause of incapacitation, since for every road death there are several people who have been left crippled after accidents on the road.

In particular, it is unclear why mortality due to alcohol poisoning is not included in the list of priority tasks. The omission is strange because, in terms of number of victims, alcohol poisoning competes with mortality due to road accidents (Figure 3.15), but the omission is particularly strange when we take note that alcohol poisoning (which usually means consumption of deathful quantity of alcohol) is an indicator of the general alcoholization of the population, which makes the greatest overall contribution to Russia's (predominantly male) adult hyper-mortality – including mortality due to road traffic accidents. There is no mention whatsoever of alcoholism among the ills to be combated for reduction of mortality. "Development of measures for reduction of alcohol consumption" is only mentioned as one of several objectives for improvement of public health.

It seems that ranking of priorities for an anti-mortality policy has not yet been carried out – perhaps the task has not even been set. But if the priorities had been decided, the next requirement would be a reasoned programme of action. Supposing, then, that goals of an anti-mortality policy has been reviewed and reformulated and that alcoholization had been recognized as the main problem. Are we ready to design an action programme for tackling the problem?

The anti-alcohol campaign of the 1980s had only short-term impact because it was inadequately planned and failed to take account of deep-rooted patterns of behavior. The scourge of alcoholism cannot be dealt with by impulsive actions on the part of government, by "taking people off guard" to achieve short-term improvement of demographic and social indicators. Success depends on a reasonable, coherent policy with respect to alcohol use, and on enlisting public support for this policy. But today we lack even the prerequisites for formulation of such a policy. There is a not a single specialized center, which could take responsibility for designing policy measures to tackle this devastating social disease. Individual researchers are doing their best to study and formulate aspects of a policy, but their isolated efforts are hopelessly inadequate for the task and only serve to emphasize the government's inaction in face of what is essentially a national disaster.

Presumably, the huge task of reducing demographic havoc due to heavy drinking is simply too daunting, and reduction of mortality in road accidents is viewed as a more achievable aim. But even this requires a reasonable and well-planned programme of action.

Traffic accidents are acknowledged worldwide as a key mortality and public health problem. Their treatment as "something that happens" is a thing of the past and efforts to reduce their incidence and ill effects are well-organized, structured and have been made the subject of serious scientific research, which nowadays receives more financial support than research into tuberculosis[15]. The work of many scientific centers and government organizations is nowadays directed to reduction of death and injury on roads. Relevant issues include road network planning, organization of traffic systems, vehicle safety design, rules of the road, policing, medical assistance in case of accidents and study of the "human factor".

This work has led to major decline of traffic traumatism in countries with even higher traffic density than in Russia (Figure 3.16). But in Russia good intentions

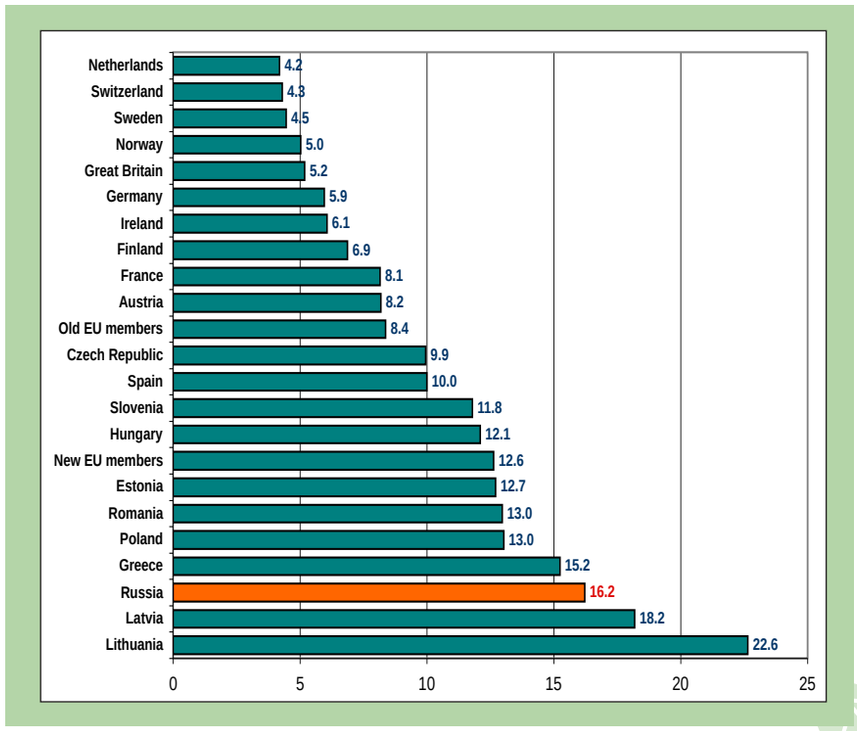


Figure 3.17. *Standardized death rate from road traffic accidents in Russia (2006) and in several other countries (2005), per 100,000 population*

Box 3.3. The history of traffic safety research in the USSR

1954 A traffic safety department (5 people) was set up as part of the Scientific Research Institute of Criminal Law at the Ministry of Internal Affairs of the USSR

1962 A traffic safety group was created in the rapid response communications department of the Scientific Research Institute of the Militia (part of the Ministry of Internal Affairs of the Russian Federal Republics).

1965 A traffic safety department was created as part of the Scientific Research Institute of the Militia (part of the Ministry of Public Order of the Russian Federal Republics).

1974 The Council of Ministers of the USSR ordered creation of the All-Russian Scientific Research Institute of Traffic Safety of the Ministry of Internal Affairs of the USSR with its own laboratory, computer center, printing house and scientific library.

1985 The All-Russian Scientific Research Institute of Traffic Safety of the Ministry of Internal Affairs USSR was created. A scientific laboratory for work on problems of traffic safety was set up as part of the Institute.

1988 The Council of Ministers of the USSR ordered creation of the Scientific Research Centre of Traffic Safety (ARSRCTS) at the Ministry of Internal Affairs of the USSR (with rights of Institute).

1992 A Scientific Research Center of the State Auto-Vehicle Inspectorate was created to replace the ARCRITS.

GAI.RU Information Portal, http://www.gai.ru/articles/?art=30

have not led to effective action: mortality from road accidents has been twice higher than in EU countries (before EU expansion in 2004) (Figure 3.17).

There is a long history of initiatives by the Ministry of Internal Affairs, which has chief responsibility for Russian roads, to set up bodies for serious study of road safety issues (see Box 3.3), but nothing has ever come of these initiatives. There have not been any serious analytical works on road accidents in Russia, and there are no specialists in the field, let alone competent scientific communities. Even the study of available foreign experience requires specialists, since successful initiatives in other countries cannot be recreated in Russia without preliminary analysis and adaptation to local conditions. Good intentions for lowering mortality from road accidents are of no use unless they are translated into programmes of action. But there is nobody in Russia capable of working out such a programme, which, in any case would require some time to prepare. One-off measures are inefficient and money spent on their implementation would be inefficiently spent.

Russia lacks any serious research on key problems of mortality, and even lacks elementary data, which are usually provided by state statistics in other countries. This is partly due to ill-conceived provisions of a law from 1997, "On civil acts", by which information about educational background, family status and occupation of a deceased person was excluded from the death certificate, making analysis of mortality much more difficult.

Comparison of Russian and foreign data is also difficult. In 1999 Russia began to register data on deaths using the 10th International Classification of Diseases (ICD-10). However, official data compilation is still carried out using the short subset of ICD-10 (less than 260 groups of causes of death), which complicates international comparison and analysis of mortality by causes. Use of the subset was justified at the initial stage of transition, since physicians were not prepared for description of death using the 10,000 nosological units of the whole ICD-10. But many post-Soviet countries have already progressed to the full list of causes concerning ICD-10. Russia has not yet done so.

Russian data that are usable for comparison with data of other countries are often lacking. For example, since 1979 the European Bureau of WHO uses national data to calculate and publish a standardized death rate from alcohol-related causes. While emphasizing that this is a very rough index, which does not enable precise estimate of mortality related to alcohol consumption, WHO experts believe that "this simple pooling of alcohol related deaths can help to better rank countries by alcohol related mortality and can be used to better track trends in deaths associated with alcohol than using separate causes".

Not counting mini-states, such as Andorra, Monaco and San-Marino, the European region of WHO includes 50 countries (with former USSR republics). In 2004, WHO published a death rate related to alcohol consumption for 36 countries. Data for most

other countries are available for earlier years. Only 3 countries – Turkey, Montenegro and Russia – have never been included in the WHO data base.

Road traffic accident mortality is another example. WHO has published data for 2004 or some later year for 8 of 15 former republics of the USSR, and data for 2000-2003 for 5 republics. But there are no data later than 1998 for Russia and Turkmenistan. Whatever the reasons for these omissions, the outcome is impossibility of making international comparisons in a sphere, where Russia is far behind other countries and where use of positive international experience is very important.

The list of examples could be continued, but enough has been said to make it clear that these are no isolated instances, but reflections of generally inadequate coverage, understanding and strategic thinking inside Russia about the issue of hypermortality. There can be no escaping the conclusion that Russian society is not facing up to one its most serious problems.

* * * * *

The Russian mortality crisis is not an isolated phenomenon. In the 1960-80s this crisis infected not only Russia but all former socialist countries of the Eastern Europe and European republics of the USSR, in more or less acute form. However, since the end of the 1980s many East European countries have seen steady growth of life expectancy. Their experience shows that the mortality crisis is tractable and transition from negative to consistently positive trends is achievable. In Russia, this turning point has not been reached. The reduction of mortality achieved in 2005-2007 still left indicators at very high levels, far in excess of what is observed in developed countries. There is no justification for saying that the problem has even begun to be addressed.

The Russian crisis has affected different sex and age groups to different degrees. Very unfavorable mortality trends among the working population from 15 to 60 y.o., and particularly among men, is the principal and most dangerous feature of the Russian mortality crisis.

Unfortunately, Russia is still delaying implementation of the second stage of epidemiological transition and has failed to establish efficient control over mortality from the causes, which become prominent at this stage. The most dangerous of them are diseases of circulatory system at young ages and external causes, particularly among men their share in male deaths is three times higher than in the West.

Seriousness of the Russian mortality crisis is so great and its consequences are so unfavorable that more vigorous efforts have to be made by Russian government and society to overcome it. There has to be a reorganization of the health care system and significant increase in financing of the system. There also has to be a review of the entire strategy for combating mortality in order to make it suitable for tasks of the second stage of epidemiological transition and for today's demographic challenges.

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[13] For more detailed information concerning differences in infant mortality for women from different educational groups see: 13 E.M. Andreyev, E.A.Kvasha, Infant mortality in different educational groups at the end of the 1980s and beginning of the 1990s// Voprosy statistiki. 2005, № 2, p.54-58; E.A.Kvasha, Social differentiation of infant mortality in Russia//Mortality and health: tendencies, methods of study, prognosis. Edited by. M.B. Denisenko and G.Sh.Bekhmetova. Moscow, Max Press, 2007. p. 237-255; E.A.Kvasha. Differentiation of infant mortality by level of mothers' education in regions of Russia at the end of the 1980s and beginning of the 1990s //Demoscope-weekly (Internet-edition), 2008, № 331-332 (http://demoscope.ru/weekly/2008/0331/analit06.php).
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Chapter 4

INTERNAL MIGRATION: GREAT PAST, MODEST FUTURE*

4.1. Internal migration contributes to uneven population distribution in Russia

Internal migration in Russia has always played an important role in redistribution of population across the country's huge territory. In the 20th century migration by millions of people from the countryside to cities over a fairly short period of time changed the whole landscape of population distribution in Russia and turned a rural country into an urban one.

Centrifugal trends in interregional migration, which prevailed from tsarist times, were supported by urbanization processes (development of old and creation of new towns in remote districts). But from the second half of the 1960s the centrifugal movement gradually gave way to a centripetal trend. Eastern regions remained attractive for migrants but flow of migrants to regions in Central and North-West Russia also intensified, mainly to Moscow, Leningrad and their surrounding regions[1]. Western Siberia (primarily Tyumen Region with its developing oil-and-gas complex) was the second center of attraction for migrants. The Volga-Vyatka, Central-Chernozem and Ural economic regions were the main source of migrants during the 1960s-1980s[2].

Since the end of the 1980s the Center and North-West have remained the most attractive migrant destinations, but attractiveness of the South, Volga and trans-Ural zones (bordering Kazakhstan) has increased (Table 4.1). This part of the country has traditionally been the main belt of population settlement, and has started to draw population from the sparsely populated periphery. Migration from outside Russia in the 1990s also tended to concentrate there. So the same regions proved attractive to internal and international migrants.

Table 4.1. *Migration-related increase of population by federal districts in 1991-2007, thou. persons*

		of which:			
Federal districts	1991-2007	1991-1995	1996-2000	2001-2005	2006-2007
Russia	4222.6	1981.1	1351.5	477.3	412.7
of which, by districts:					
Center	2717.9	929.3	839.9	631.0	317.7
North-West	120.4	-35.2	57.0	55.5	43.1
South	1041.3	772.2	187.0	30.5	51.6
Volga	1195.6	758.0	407.7	8.7	21.2
Ural	265.6	34.7	160.0	34.7	36.2
Siberia	-59.0	90.3	15.1	-144.2	-20.2
Far-East	-1059.0	-568.2	-315.2	-138.9	-36.7

Source: Rosstat, current statistics for 2003-2007, Rosstat estimates.

The result has been a new polarization of Russia's migration space. The whole territory of the European North, Eastern Siberia and the Far East have been losing population. This marks the end of a long-term colonization trend, which has lasted for many decades and even centuries. In those regions, where migration-related outflow was most intense, the existing system of settlements has been transformed through disappearance of many villages and even small towns (so-called "urban-type villages").

There has been particularly rapid outflow of population from territories with extreme climatic conditions. Problems accompanying transition to the market economy (unemployment and degradation of social infrastructure) in many towns and villages of the Russian North showed that these areas had become, to an extent, overpopulated. Special allowances and bonuses paid by the state to people who lived and worked in these regions were made worthless by galloping inflation, and there was no other economic motivation for moving there. The severe climate made it impossible for the local population to compensate income decline by means of small-scale farming. Outflow of population from regions beyond Lake Baikal and the southern part of the Russian Far East was intensified by army cutbacks.

Migration loss in eastern and northern regions peaked in the mid-1990s and has now declined.

The republics in the Southern Federal District have also lost population. The situation on labor markets in these republics was difficult even in Soviet times, forcing the local population to seek jobs in various other parts of the country. Slavic populations started to leave this region long before the military conflicts, which accompanied and followed the end of the USSR, although initially at a slow rate.

Outflows from the southern republics became more marked at the start of the 1990s. Diasporas of Caucasians grew rapidly in Krasnodar Territory and Stavropol Region, as well as in many regions of Central Russia and the Volga.

When, at the start of the current decade, external migration creased to give major net additions, the migration balance in all federal districts, except the Central Federal District, approached zero (Figure 4.1). Decline of migration-related increase of the Russian population has been marked by increase in the share of total positive net migration, which accrues to the Central Federal District. This District absorbed 36% of positive net-migration in Russia in 1991-1995, a half of the total in the last 5 years of the century, and 83% of the total in 2001-2005. The rate of migratory growth of the Russian population began to accelerate again in 2006 and 2007, and the share of the Central District declined correspondingly (to 75% and 66% in the respective years).

Despite significant internal migration, most migration-related population growth in most regions has been due to inflows from former Soviet republics (Table 4.2). Decline of migration from these countries has reduced the overall effect from migration in compensating depopulation. In recent years many regions, which previously drew internal migrants, have only been able compensate loss of residents moving to Moscow and other developing centers thanks to arrival of immigrants from other CIS countries.

As external migration declined (at least of that part of it, which is related to change of permanent place of residence) only a handful of regions continued to show migration-related growth in 2001-2006. These are the city of Moscow, Moscow Region, the city of St. Petersburg, Leningrad Region, Kaliningrad Region, Saratov Region, the Republic of Tatarstan, Krasnodar

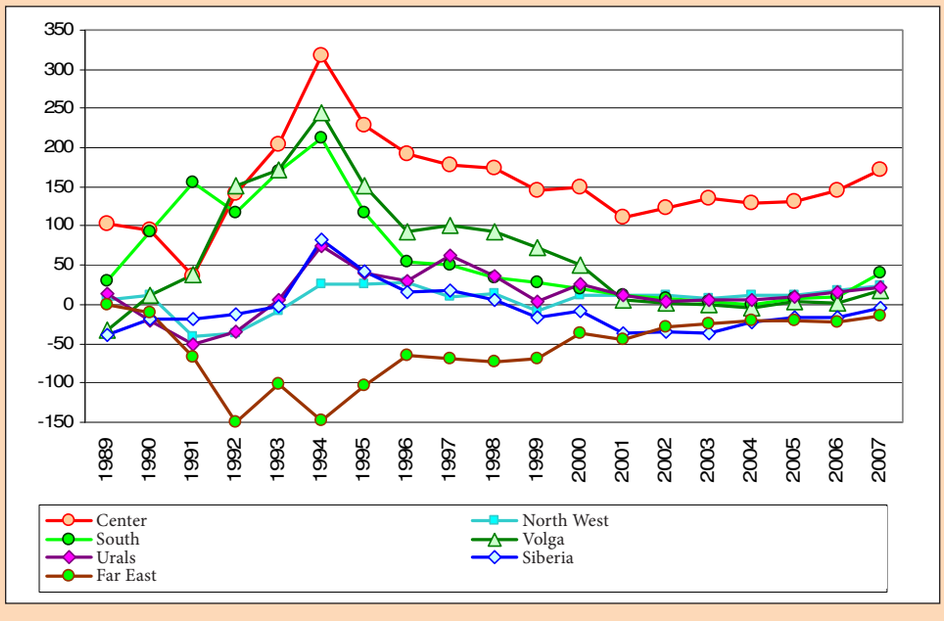


Figure 4.1. *Migration growth of population by federal districts,1990-2007, thou. persons*

Territory and Stavropol Region. In the Urals only Sverdlovsk Region has continued to attract a steady inflow of migrants, and no regions of Siberia and the Far East have seen migration-related growth in the period.

Over half of Russian regions that include cities of over a million inhabitants (7 out of 13) showed steady migration-related growth in 2001-2005. In 2006 growth was observed in 10 such cities and in 2007 in 11. Migrants, both internal and external, view large cities as offering more chances of employment, higher earnings and better overall opportunities.

Many regional capitals are able to maintain their population levels thanks to inflow from the towns and rural districts of their regions and of neighboring regions. This is the case even in regions with large overall migration outflows (see Box 4.1).

Many small cities and towns in Russia have experienced outflow of population in recent years. The only exceptions have been agglomeration-towns, some recreation-and-resort zones, and towns in oil-and-gas production areas. Towns and rural districts mainly lose young people, who move to larger cities for reasons of education or employment. Towns, which lack a diversified labor market and large educational center, lose 20-30% of their young people. The local population ages prematurely as a result and there is negative impact on its reproductive potential.

Relocation of young people from towns to big cities is nothing new. But what makes the situation in the last one or two decades unique is that potential for migration from rural areas to towns is close to exhaustion. There are no sources of new inhabitants for small cities and towns. This was not the case at the start of the 1990s, when migration inflow of Russians and Russian speakers from the former USSR republics was largely oriented to towns and rural areas, where the migrants could more easily find housing.

Recent economic growth has raised demand for labor in large cities, which has intensified migration from towns, where the economic situation remains relatively unfavorable. This is particularly true in settlements with undiversified economies. Of 1097 Russian towns and cities, about 500 depend on a single industry, and this is also the case of at least 1200 of total 1864 urban-type villages. Total population of these single-industry towns and villages is at least 16 million, and another 400 settlements with population up to 3000 (too small to have administrative status of "urban-type villages") are also reliant on a single industry (not agriculture) and are therefore in the same situation[4]. Unless money is spent to diversify production and develop small business, these communities will remain uncompetitive, with very low labor remuneration (even by Russian standards) and latent unemployment.

Potential mobility of young population in small cities (towns) and rural areas is very high. According to data of a survey, carried out among final-year students of secondary schools in towns, 70% of girls and 54% of boys say that they intend to leave their towns[5]. A study of potential migration in Tomsk Region found that people in rural areas with socio-economic problems are more disposed to leave, but that desire to migrate is below average in agricultural areas

Table 4.2. *Migration growth (loss) due to external and internal migration in 1991-2007, thou. persons*

Federal districts	1991-2000			2001-2007		
	Total	External	Internal	Total	External	Internal
Russia	3332.6	3332.6	0.0	890.0	890.0	0.0
of which, districts:						
Center	1769.2	1150.8	618.4	948.7	377.4	571.3
North-West	21.8	170.4	-148.6	98.6	61.0	37.6
South	959.2	794.1	165.1	82.0	149.0	-67.0
Volga	1165.7	871.2	294.5	29.9	182.6	-152.7
Ural	194.7	268.4	-73.7	70.9	90.0	-19.1
Siberia	105.4	291.3	-185.9	-164.5	31.3	-195.8
Far East	-883.4	-213.6	-669.8	-175.6	-1.2	-174.4

Box 4.1. Irkutsk agglomeration and Irkutsk Region

Census of population in 2002 corrected population of Irkutsk Region downwards by 128,000, representing departures to other regions, which had not been captured in current records (Figure 4A). But Irkutsk city and towns in the Irkutsk agglomeration were almost unaffected, since departures from the agglomeration were easily compensated by unrecorded migration from other towns and districts in the Region. Based on the census results, Rosstat adjusted data on annual trends in population number and migration growth in the period between censuses. Irkutskstat (the regional statistics agency) carried out recalculation of population in towns and districts of the Region using the same method[3]. Changes of population in towns and districts, which are part of Irkutsk agglomeration, and in other areas of the Region are interconnected. In total, population of the agglomeration remained nearly changed during 1990-2005 (there was a marginal decline of 6700) while population of other towns and districts in Irkutsk Region fell by 261,100 or 14.3%. So the Region's population decline was all due to areas outside the agglomeration and migration played a significant role in the decline.

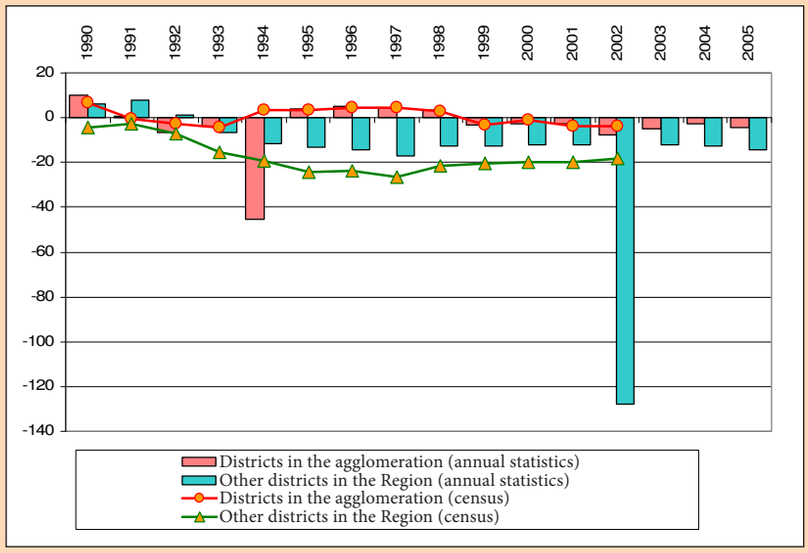


Figure 4.A. *Population change in towns and districts of Irkutsk Region, inside and outside Irkutsk-city agglomeration, by current statistical accounting and 2002 population census, thou. persons*

According to recalculated data of the 2002 census, migration-related increase in the agglomeration was 37,500, while migration-related loss in other towns of the Region was 186,300. There was positive net external (international) migration during the period, but the recalculation data do not allow estimate of its size (annual statistics, which is less than complete, suggest a migration-related increase of 12,300). The biggest part of this increase probably accrued to the urban agglomeration.

As can be seen in Figure 4.B, towns and districts outside the Irkutsk agglomeration, were losing at least 10,000 people annually through migration (up to 20,000 in some years). It is not clear what part of this loss has migrated to the agglomeration and what part has moved outside the Region, since residents of the agglomeration were leaving to other Russian regions and migration from other parts of the Region compensated this loss.

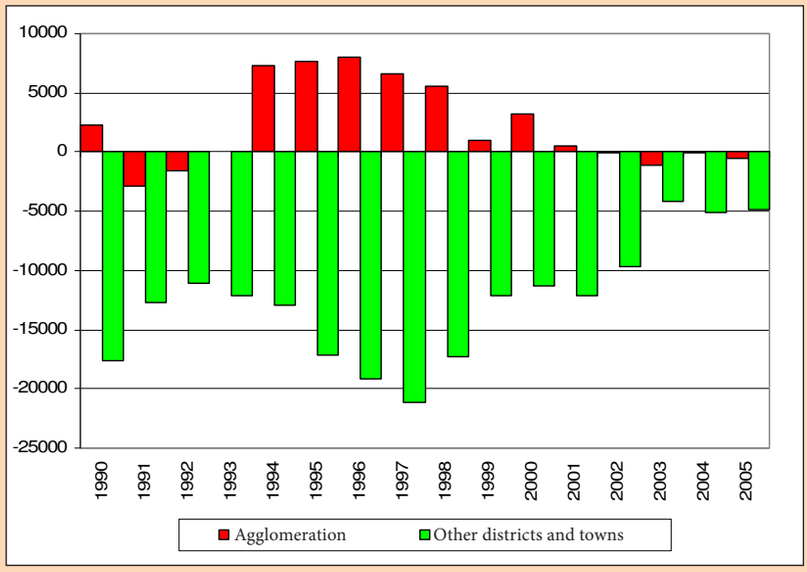


Figure 4.B. *Migration by population of Irkutsk Region according to results of 2002 population census (until 2002) and calculations using current population accounting data (2003-2005), thou. persons*

in the southern part of the Region, close to the regional center[6]. Data of a survey carried out in rural areas of 10 Russian regions also show much inclination to migrate from rural areas[7]: 54% of respondents wanted their children to move out of the countryside.

Loss of young people complicates many chronic problems of towns and rural areas. Care of elderly people in small rural settlements is a particularly difficult challenge at a time when Russia's population is becoming increasingly sparse.

Migration from the countryside to urban areas has made the Russian population highly mobile for some time. The movement was driven by intensive urbanization in the first Soviet decades. Annual migration from rural areas to towns at the end of the 1960s and start of the 1970s exceeded 1 million or 2% of the total population[8]. However, there was a sharp decline in migration from the countryside in the second half of the 1970s as population of the villages was already much depleted and rural population had become concentrated around large cities (greater prosperity and more diversified lifestyle makes people close to cities less inclined to migrate, compared with residents of peripheral areas[9]).

Since this time migration between urban settlements of various size has exceeded rural-urban migration.

4.2. Western drift: Can it be stopped ?

"Western drift" is migratory movement from Eastern Russia to the Central, Volga and South-

Table 4.3. *Western drift in 1991-2007, thou. persons*

	Population growth (decline) from migration					
Years	Net gain of European Russia* from Asian Russia**	Net gain of Urals from European Russia	Net gain of Urals from Asian Russia	Net gain of Siberia from Urals and European Russia	Net gain of Siberia from the Far East	Net gain of Far East from Urals and Siberia
1991	69.5	-23.2	1	-13.6	4.4	-38.1
1992	90.9	-21.9	4.6	-18.5	10.9	-66.0
1993	97.9	-13.7	7.3	-30.3	12.3	-73.6
1994	137.5	-20.1	9.0	-36.7	18.9	-108.6
1995	118.4	-15.7	8.1	-31.3	17.2	-96.8
1991-1995	***514.2***	***-94.6***	***30.1***	***-130.4***	***63.8***	***-383.1***
1996	82.1	-5.8	8.9	-30.5	11.5	-66.2
1997	89.0	-4.9	9.9	-39.9	9.5	-63.6
1998	93.7	-12.4	7.7	-36.1	10.4	-63.3
1999	93.0	-20.0	5.6	-31.1	9.5	-57.0
2000	57.4	-4.5	6.1	-26.6	4.2	-36.6
1996-2000	***415.2***	***-47.5***	***38.2***	***-164.2***	***45***	***-286.6***
2001	53.8	-2.7	6.1	-28.6	2.5	-31.2
2002	57.5	-7.4	5.0	-29.1	1.4	-27.5
2003	56.7	-8.6	3.9	-28.0	0.3	-24.3
2004	51.9	-7.5	4.1	-27.3	0.8	-22.1
2005	54.2	-10.9	4.7	-26.9	1.3	-22.3
2001-2005	***274.1***	***-37.1***	***23.9***	***-139.9***	***6.3***	***-127.3***
2006	57.8	-8.9	4.5	-31.4	1.6	-23.5
2007	57.3	-7.1	5.6	-34.3	2.0	-23.5

* European Russia: Central, North-West, South, Volga. ** Asian Russia: Urals, Siberia, the Far East.

ern parts of the country, as residents of Siberia and the Russian Far East resettle west of the Urals. This drift has been the main feature of internal migration since the 1990s. Migration exchange between Asian and European Russia has been at high levels for the last 50 years, with various fluctuations. However, the situation in the last 15 years is different, since departure from the East has not been compensated by an opposite flow of migrants from the West of Russia.

Scale of the western drift is gradually declining and migration loss of eastern regions of the country is declining (Table 4.3). The trend seems to have peaked in the mid-1990s, and has not resumed despite recent decline of immigration from FSU and Baltic countries, which should makes it easier for new arrivals from eastern Russia to establish themselves in the European part of the country.

Slowdown of the western drift mainly reflects exhaustion of migration potential in the Far East. There has recently been a decline in the Far East of both incoming migrants (119,600 in 2007 vs. 484,000 in 1990) and outgoing migrants (135,500 vs. 524,000 in 1990).

Data of the 2002 census showed that population in all regions of Asian Russia (except Altai Region) was less than suggested by annual statistics. So outflows to the European part of the country in 1989-2002 had been underestimated. This unaccounted migration could be up to 1 million, which means that scale of the western drift would be twice higher than annual statistics show (1.3 million in 1991-2007).

Decline of the western drift will reduce population depletion in the Far East and other Asian parts of Russia, but it will also entail a decline of migration replenishment from the East in the country's European regions.

Redistribution of population between regions of Siberia and the Far East is also decreasing. Western drift in recent years caused severe losses of population in many eastern regions, but some of them compensated the loss by north-to-south and east-west migration within Asian Russia. This was the case in the southern part of the Far East, and the trend was even stronger in western parts of Asian Russia. For example, in Novosibirsk region the inflow from the East outnumbered the outflow to the West by 4 times (Table 4.4).

Slowdown of the western drift has meant that many eastern regions, located on its path, are no longer able to compensate their losses by virtue of inflow from regions further eastwards. For example, Amur Region and Buryatia have become net donors of migrants, Irkutsk Region compensated only a quarter of losses in 2001-2007 by inflow of migrants from the East (down from half in the

Table 4.4. *Western drift in several Asian regions of Russia, thou. persons*

	to the West	from the East	% compensation of loss from western drift	to the West	from the East	% compensation of loss from western drift
	1991-2000			2001-2005		
Primorsk Territory	94.6	20.2	21.4	30.5	1.8	5.9
Khabarovsk Region	82.9	15.7	18.9	13.3	11.0	82.7
Amur Region	56.0	9.5	17.0	14.8	0.5	3.4
Buryatia	39.6	7.1	17.9	20.9		…*
Irkutsk Region	66.9	33.0	49.3	29.6	7.8	26.4
Krasnoyarsk Territory	132.3	24.8	18.7	29.2	9.1	31.2
Tomsk Region	23.1	5.5	23.8	5.7	3.1	54.4
Novosibirsk Region	10.0	42.6	by 4.26 times	12.9	10.6	82.2
Sverdlovsk Region	25.9	24.0	92.7	0.0	9.0	…**

* no compensation. ** no loss in exchange with the West (net increase)

1990s), and the situation in Krasnoyarsk Territory is only slightly better.

Even Novosibirsk Region has started to lose population in inter-Russian migration due to slowdown of western drift, and growth due to migration in Sverdlovsk region has been marginal.

Northern regions continue to lose their population. These losses peaked in the 1990s, but have now dropped by half and stabilized at annual levels of 40-50,000 (Figure 4.2).

Northern regions of the Far East (Magadan, Kamchatka, Republic of Sakha and the Chukotka Autonomous District), suffered the most intensive migration-related loss of population in the 1990s, and have seen the sharpest declines of migration in recent years.

At present there is no reason to think that the western drift of population in Russia can be stopped or reversed. For decades migration to eastern regions was stimulated by the government, and the population there grew as a result. It is illusory to think that such trends could be revived by appropriate management of migration processes and creation of new jobs in these regions. Ability of the state to manipulate population movements (and most other things) is much less now compared with the days of the planned economy. But, in any case, hopes for reversal of the western drift fail to take account of current and future prospects associated with depopulation and shrinkage of the population of working age.

Unlike the situation in previous decades, Russia today has no spare population for migration eastwards. Resources in rural areas and towns are practically exhausted, and any remaining potential for relocation of young people will be absorbed by large cities in European Russia. The cities of Siberia and the Far East cannot compete with cities in European Russia by economic potential, development of social infrastructure or climate. At the moment there is no center in Asian Russian, which compares as a draw for migrants either with Moscow and St. Petersburg (and their surrounding regions) or even with such places as Krasnodar Territory. There is no Russian city with more than a million inhabitants to the east of Novosibirsk.

4.3. Moscow as the center of attraction for migrants

The western drift has been supplemented in recent years by movement of population from the South to the Center. Centripetal movement has been dominant. Moscow and its region is the center of attraction, as much in the limits of the Central Federal District as for Russia as a whole. Attractiveness of Moscow has been restored and has even increased following the crisis of the 1990s (Figure 4.3). Migration adds 100-130,000 new population to the capital and its region every year, and most of the newcomers are interregional and not international migrants.

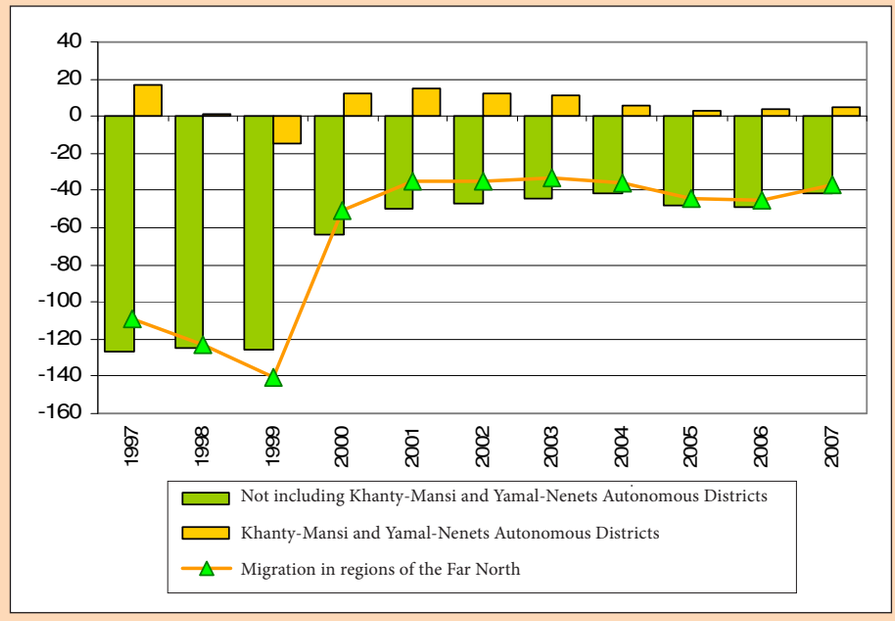


Figure 4.2. *Net migration in regions of the Far North, thou. persons*

Moscow and Moscow Region accounted for 85% of net migration into the Central Federal District in 2001-2005, and 73% in 2007. And these are only the official statistics. According to Moscow City government, there were 1.227 million Russian citizens from other parts of the country temporarily registered in Moscow in 2007 and 1.712 million foreign citizens were registered in Moscow in the same year[10].

There are many reasons why Moscow is so attractive: quality of urban infrastructure, high wages, diversified labor market, good educational opportunities, etc. Migration to Moscow (and also to St. Petersburg) is an alternative to moving abroad for people with social and professional ambitions. Emigration abroad from Moscow, which was a fairly intense in the late 1980s and early 1990s, had almost ceased by the mid-1990s.

Without migration (at "zero" net migration), the population of Moscow today would be less by 2.5 million. According to Rosstat, excess of deaths over births in Moscow in 1989-2007 was 951,000 and was more than 80,000 each year in the mid-1990s (Figure 4.4). Without census adjustments, population of the capital would now be 300,000 less than in the late 1980s. Registered migration inflows to the capital have only outnumbered natural decrease of population since the end of the1990s.

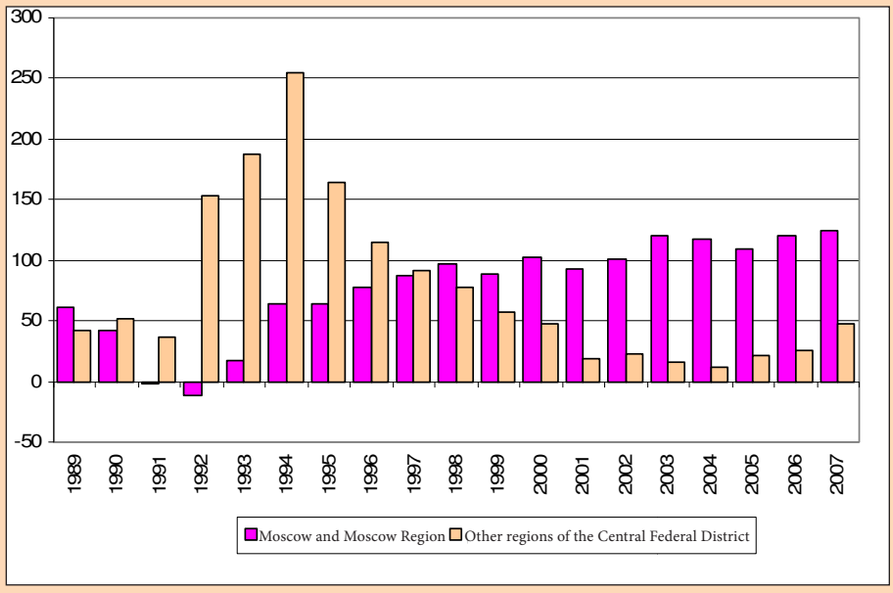


Figure 4.3. *Net migration in Moscow and other regions of the Central Federal District, thou. persons*

Moscow is the key player in Russian migration. The smaller the number of migrants who come to Russia, the larger the share of them who settle in Moscow. Most regions in the European part of the country can only compensate outflow of their population to big cities and, to some extent, compensate depopulation, when inflow of international immigrants is high. Low international immigration and decline of the western drift mean that migrant flows are only sufficient for large cities and a few attractive regions (all located in the Western part of the country).

As a strong center of attraction for internal migrants, three quarters of Moscow's growth is from internal migration and only one quarter from international migration. These estimates are based on official statistics, but there is every reason to suppose that unregistered migration flows have similar proportions.

The main resource for migration to Moscow has historically been the provinces of Central Russia. In 1882 people from Moscow Province and the

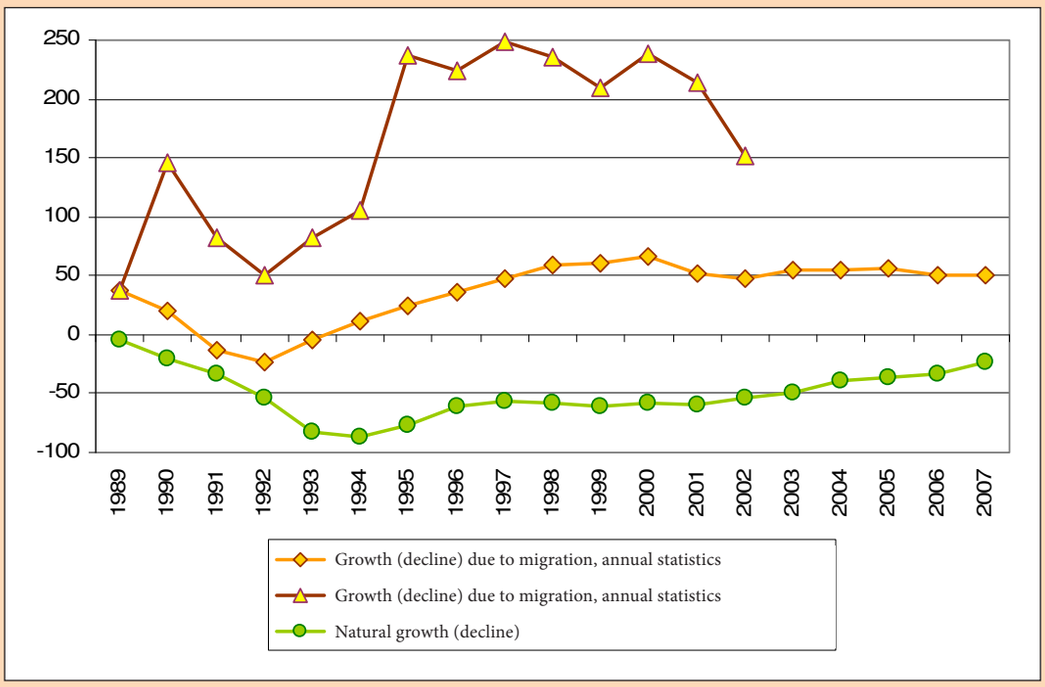


Figure 4.4. *Migration and natural increase of population of Moscow, thou. persons*

provinces of Yaroslavl, Ryazan, Tula, Vladimir, Smolensk, Tver and Kaluga accounted for 48.6% of the total number of migrants to the city, and in 1926 the figure was little changed at 47.7%[11]. The geography of migration to Moscow has altered since then, but the city's near neighbors are still the main source of migrants. In 2002 the share of people from regions neighboring Moscow in total migrants was 33.1%, while a further 6% came from other regions of the Central Federal District. These regions accounted for almost all daily and weekly commuters to Moscow ("pendulum migrants"). In 1985 the number of pendulum migrants was 1 million. They have been numbered at 3 million in recent years[12], but this figure seems to be an overestimate.

The Central Federal District has consistently provided 40% of Moscow's registered population growth due to internal migration in recent decades (Figures 4.5 and 4.6).

Registered migration to the city of Moscow today is marked by geographical selectivity. St. Petersburg dominates in migration exchange between Moscow and the North-West, Moscow Region in exchange between Moscow and central regions, Samara in exchange with the Volga, and Khanti-Mansy and Yamal-Nenets Autonomous Districts in exchange with Siberia. So the main migrations are from highly urbanized and rich territories. The fact that newcomers are from relatively affluent regions is unsurprising, si nce resettlement to Moscow as a permanent residence requires purchase of a dwelling and Moscow housing prices now exceed levels in many world capitals. Most of the immigration to Moscow from CIS and Baltic countries is from the capitals of those countries[13].

4.4. Revival of "working away from home": A long-term trend?

After the Soviet Union's collapse, internal migration in Russia shrank by half. This was people's response to aggravation of the overall situation

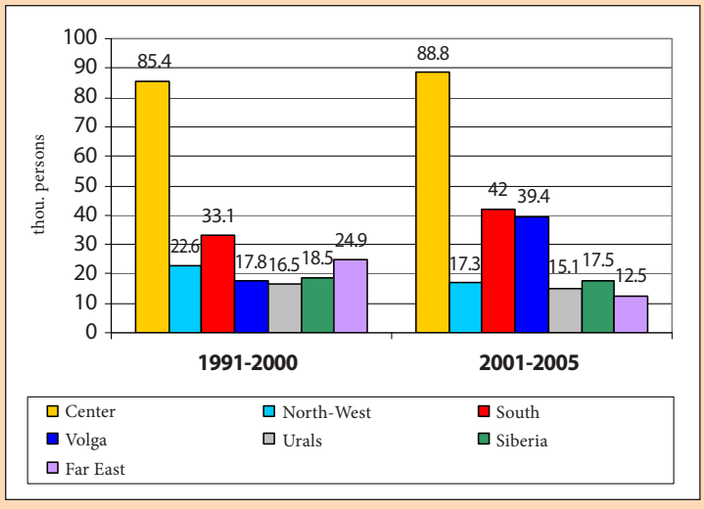
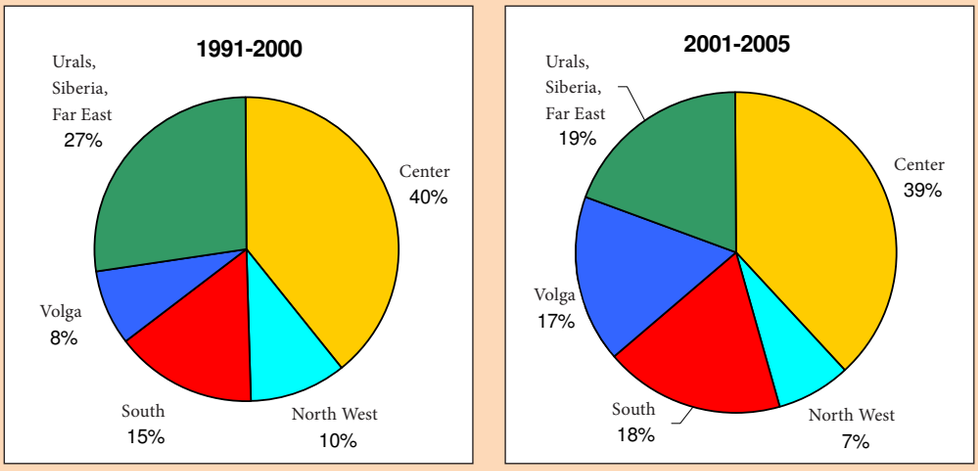


Figure 4.5. *Net migration to Moscow from other parts of Russia, 1991-2005, thou. persons*

Figure 4.6. *Structure of Moscow population growth due to migration by source regions, 1991-2005, %*



in the country, the economic crisis and decline in living standards. Decline of internal mobility continued until 2002, since when it stabilized at a fairly low annual level of 2 million, compared with 4.7 million in 1989, when the decline started. This level of mobility is abnormally low for a country experiencing economic development and labor deficits on many regional markets. But decline of traditional forms of mobility has been accompanied by increase of other forms.

Migration with permanent change of residence is being replaced by temporary forms of geographical mobility. Internal labor mobility, which developed in the post-perestroika period, proves this fact. Our estimates, based on household surveys in 7 Russian cities in 2002, suggest that 3 million people are involved in such movements inside Russia, which is comparable with labor immigration to Russia from CIS countries[14].

As always, the main magnets for internal labor migration are large cities, which have increasing demand for labor. These cities employ people from smaller cities and towns and from rural areas, which have been negatively affected by economic crisis. On average 20% of households in towns include a labor migrant, and the figure

Box 4.2. Two scenario of temporary labor migration

Temporary labor migration follows two scenarios:

a) Rotational. This is possible when the place of work is relative close to the permanent residence, so that workers can regularly visit their families and support them. Proximity of permanent residence is highly valued by migrants, many of whom have experience of working far from home. "It is very important for me to be close to my home because, if my family needs me, I don't have to pay a lot for the journey" (Stavropol, migrant-builder from Dagestan). "Previously I worked in Kambarka (Udmurtia), but it was very difficult because I could not afford the trip to see my family" (Ekaterinburg, migrant-builder from Chelyabinsk Region). A rotational system is very convenient for family men, who can, for example work 20 days without interruption and then go home for 10 days. At work they try to earn as much as possible and willingly accept overtime. This is a conscious strategy combining heavy work in a large city with rest at home. Living conditions at the work place have little importance for such workers, who can obtain the services they need at home. "I like working this way, I don't want a five-day week – you can't have a proper rest in two days anyway." (Ekaterinburg, migrant-builder from Chelyabinsk Region). A rotational worker is not isolated from his family and doesn't have problems peculiar to workers who leave home for indefinite periods of time.

Such workers often obtain medical services and social provision at their place of permanent residence. They do not register at the place of work, since they do not spend long uninterrupted periods there.

b) Settled. In this scenario workers depart to their place of work for a long period of time and visit their families only a few times each year. Such workers usually live in dormitories or rented accommodation and may bring their families with them. They need medical and social services, and registration at an address where they work. They often aspire to move permanently to the place of work and are considering finding long-term accommodation.

As a rule, such labor migrants already have long experience of working away from home in various cities. Their main reason for migration is lack of earning potential where they come from and need to support or improve the lot of their families. "No one wants to stay in the village -- they are sick of it. And anyone who leaves never goes back. I will continue working in the city." (Ekaterinburg, migrant-builder from Kurgan Region). "About 40 percent of men from our village work away (here and in Moscow)." (Stavropol, migrant-builder from Dagestan).

40% of respondents in the study of migration mobility in large cities[15] who said that they or their family members had been temporary labor migrants in the last two years had worked within the limits of their regions or in neighboring regions, and 60% had worked in distant regions. Many had gone to Moscow and Moscow Region.

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Internal migration in Russia: Legal aspects, Moscow, 2007, p. 24-26

is as high as 30% in towns dependent on a single industrial enterprise, which has ceased to operate. Most of these migrants are working elsewhere in Russia. So Russia is experiencing a revival of the practice of temporary labor migration (the old Russian term "otkhodnichesto" or "working away from home"), which now affects millions of households.

This practice has become possible thanks to transition to a market economy, and will remain a real occupational alternative for residents of stagnating settlements. Internal labor migration enables better use of resources inside the country and narrows down the niche for international immigration.

Temporary labor migration divides many people between their permanent place of residence and a place of work, where they cannot or do not wish to live permanently. De facto, these people are new residents of large cities, but de jure they are not.

Temporary labor migration is a widespread and convenient way for households to adapt to changing conditions. It is a fairly advantageous arrangement, since one of the family members works in a large city and earns relatively good money, but spends the money in his or her native town where their real purchasing power is higher. These labor migrants are often ready to work overtime in order to increase their earnings. Moving with their whole family to the place of work reduces the benefits.

On the other hand, temporary migrant labor is a far-from-ideal solution for both workers and their families. Labor migrants are often employed in the unofficial economy with limited access to medical services, credits, etc., they may not be able to obtain same payment for same labor, and the migrant life-style often leads to family tensions.

Development of various forms of temporary labor migration in modern Russia is reminiscent of the era which followed emancipation of the serfs in the 19th century, when the same phenomenon was also widespread. The outcome, after a certain period, was that migrants broke ties with their place of origin and settled permanently where they worked. The modern phenomenon of temporary migrant labor is probably also a transitory stage. But it will only end when more advanced forms of mobility, enabling more frequent change in place of work and place of residence, become established in Russia. The question is whether Russian society is ready for such a development.

4.5. Are Russians prepared to change their place of residence for better jobs?

A large part of unemployment in Russia at present is structural, reflecting regional disproportions of labor supply and demand. Areas with workforce shortages (for example, the Central Federal District) exist alongside other areas (particularly the Southern Federal District) where there is oversupply of labor. The idea of balancing regional labor markets through migration has many supporters, but is far from being realized. Could this reflect insufficient mobility of Russian citizens?

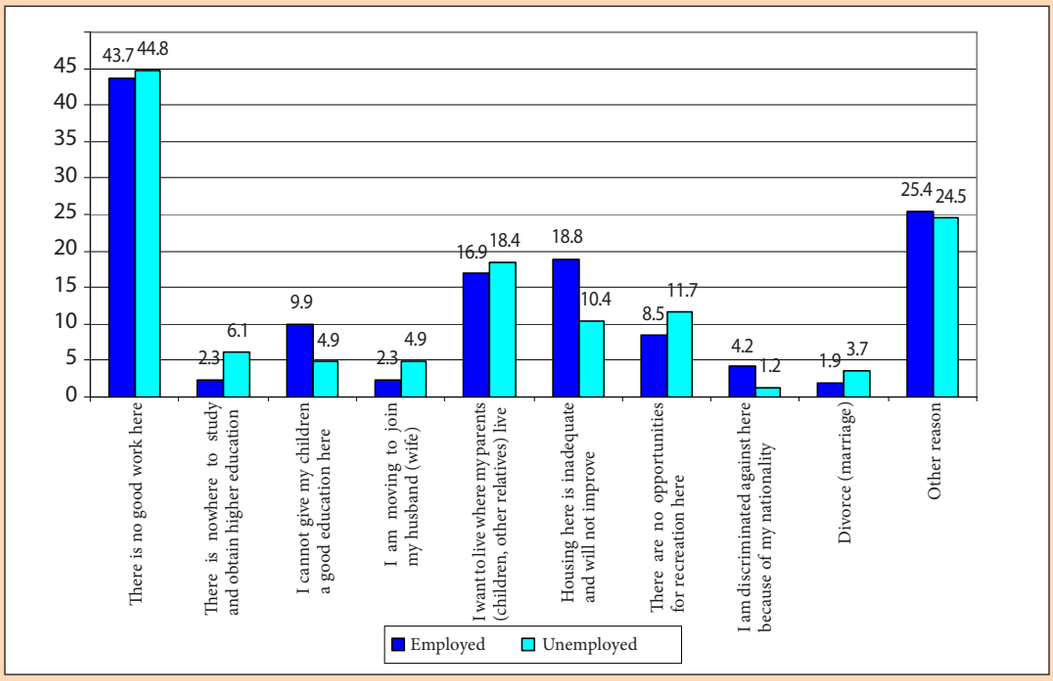
A population poll in large cities showed that the majority (88%) of unemployed respondents had not sought work outside their city, while 4% of respondents were looking for a job in other towns and cities of their region, and only 8% had made an effort to find a job in other regions.

Unemployed persons, registered with the government employment service, do not manifest readiness to move to other regions, even if favorable conditions are available for doing so. The long-term unemployed (over 10 years) have less of a tendency to migrate than people in employment. Long unemployment is not an incentive to mobility, but tends to induce passivity.

The above-mentioned migration study among residents of large cities showed that young people with high levels of education are more inclined to move. The main reason cited by respondents as justification for moving away was lack of a good job (Figure 4.7).

Migration intentions depend upon living conditions at the destination, including accommodation and a good job. People in search of a job had definite migration intentions: 22% were ready to move or were considering doing so. Answers to the question: "If you were offered a good job in another city with guaranteed accommodation, would you accept?" show that 31% of unemployed respondents would move and a further 17% would do so depending on the destination. However, 37% of respondents would not change their place of residence in any case. Students are more receptive to offers of a job and accommodation in a new place, but only a quarter of other job seekers were prepared to move on the conditions described (Table. 4.5).

Of those who have no intention to move, 17.5% would change their mind on condition of a guar-



* RESPONDENTS COULD NAME 3 REASONS MAXIMUM

Figure 4.7. *Reasons for moving (%)*

anteed job and accommodation, and another 15% would consider moving in such case (their decision would depend on the destination) (Table 4.6). Among unemployed people with no intention to move, almost half would not change their mind even on condition of a guaranteed job and accommodation. The implication is that economic instruments of migration management are useful, but have serious limitations.

Results of the poll suggest that measures to encourage migration to specific regions and cities could stimulate mobility among the unemployed, particularly in relatively poor regions of the country. But it should also be noted that many respondents make any move conditional on the destination.

Mobility is closely connected with age. Change of age structure of the Russian population in the

Table 4.5. *Migration intentions in case of guaranteed work and accommodation in the new place, by groups of unemployed, %*

Respondent group	Definitely yes; probably Yes	Depending where	Probably Not; definitely Not	Don't know	Total
Students (technical college, institute, secondary school)	44.2	18.2	29.9	7.8	100.0
Housewife	19.4	19.4	55.6	5.6	100.0
On maternity leave, or nursing a sick person	0.0	0.0	66.7	33.3	100.0
Unemployed registered with the employment service	26.3	10.5	36.8	26.3	100.0
Temporarily unemployed, looking for job	26.5	17.0	36.1	20.4	100.0
All respondents	31.1	16.6	36.7	15.6	100.0

last decade (growth of the number of young people in the most mobile age group, from 15-24 years old) favored increase of mobility in Russia. But this age group is now shrinking and progressive ageing of the population will tend to reduce mobility.

All this emphasizes the importance of specific measures for maintaining and increasing territorial mobility among Russians, without which many economic and social process will lose flexibility and dynamism. There are many obstacles in modern Russia to growth of migration, both to permanent and temporary labor migration in its different forms.

Table 4.6. *Answers to the question: "If you were offered a good job in another city with guaranteed accommodation, would you move?", by groups with different current migration intentions, %*

	All persons job seekers	of whom:		
		intending to move, or considering moving	not wanting and not planning to move	Never thought of it
Definitely yes	16.6	39.1	9.1	12.2
Probably yes	14.5	18.8	8.4	22.0
Depending where	16.6	14.1	15.4	20.7
Probably not	15.9	7.8	18.2	18.3
Definitely not	20.8	9.4	30.1	13.4
Don't know	15.6	10.9	18.9	13.4
All respondents	100.0	100.0	100.0	100.0

Despite the growing deficit of skilled personnel, which is particularly acute in large cities, there is little awareness of the importance of balancing labor markets by use of migration. Official structures are taking almost no action in this direction and there are occasional calls for revival of measures that were used in the command economy (i.e. in absolutely different historical and demographic circumstances). Such "antique" measures include limitations on right to work through a work registration system, and reanimation of the Soviet system, which assigned graduates directly to a place of work. Basic institutional conditions to simplify mobility of people around the country are not in place.

Factors, limiting mobility, include:

1. Obligatory system of registration at an address in the administrative region where a person works. The system is very bureaucratic and complicated by the need to obtain consent of the owner (tenant) of the dwelling, and by various special conditions, some of them linked to the antiquated system of payment for public utilities based on the number of people registered at premises, and not on volume of services actually consumed.

Registration at an address is often a condition for finding work. A person without registration means extra problems for the employer: complications over taxation and transfer of money to the State Pension Fund, etc. Lack of registration can slow down career development, since employers are not disposed to entrust critical work (including work with large sums of money) to unregistered employees. Absence of registration often serves as a pretext for low wages, and can lead to problems with law-enforcement agencies.

2. Limitation on access to certain social services. Many social security systems are still linked to the place of permanent residence and permanent registration (health care services, social care, pension provision and, to a lesser extent, educational services).

3. Poor development of the housing market and high prices for housing in central regions are the main factor preventing permanent migration to these regions and ensuring dominance of temporary labor migration. Wages of qualified workers in most sectors is sufficient for them to cover current needs of their families, but not to rent a dwelling for all members of the household in the region where they work. Availability of housing is particularly low in cities, which need migrant

labor. Only a small part of the population can afford to buy an apartment and credit mechanisms are under-developed. Temporary workers therefore live in various ad hoc premises – trailers, buildings under construction and dormitories. The worker's family stays in the town or village, which is his permanent place of residence.

Employers are only ready to compensate rent or help in acquisition of housing for a very limited circle of employees. And only the largest and most successful enterprises can afford to do so. Some enterprises pay wages "in kind", for example by paying the interest part of an employee's mortgage credit. This is an additional factor limiting mobility.

Formal indicators suggest that Russia matches western countries by affordability of housing[16], which costs the equivalent of about 5 years average annual income. However, independent assessments show different results. In various regions of the country, an apartment or one-family house costs 12-60 years of average income[17]. Migrant households are no better off than others. Indeed, since they usually work in less prestigious and lower paid jobs, the difference is not in their favor.

There is an almost complete lack of inexpensive and accessible dwellings in Russian cities (cheap hotels, hostels, etc.), and development of this sector offers much potential for cooperation between business and government.

4. Under-development of recruiters and employment agencies capable of search and selection of personnel in other regions. The few recruiters, which offer such a service, are specialized in highly sought-after specialists in non-mass professions. Government employment offices offer no such service and are not popular among employers or job seekers due to unattractiveness of most of the vacancies, which they propose. In fact, despite a semblance of state control, the labor market lives a life of its own and there is no reliable mediator between the worker and the employer.

5. Racism is a key factor limiting mobility in Russia. It can be difficult for a person with a non-Slavic name or appearance to find employment or rent accommodation, irrespective of his citizenship. Sociological surveys[18] show that Russian citizens from the North Caucasian republics most often face discrimination. People from the Caucasus are also more likely to be drawn into domestic disputes, which can easily take on a racist character[19]. These factors are a serious obstacle to labor mobility of young people from the Southern Federal District, which is the only District in Russia with surplus labor.

* * * * *

Internal migration in Russia is affected by various interlinked factors

By the end of the past century, migration had entered a new historical stage. The "Sturm und Drang" period, during which millions of peasants moved to the towns came to an end. That period had created Russia's modern urbanized population, with its new settlement distribution and mentality. Ending of that period coincided with speeding up of depopulation processes in Russia.

All this means that, however significant current and future trends in internal migration may be, they are not capable of causing further radical changes in the country's make-up and human space. The "great past" of internal migration will not have a sequel.

Government, which frequently resettled labor populations at its discretion during the Soviet decades, has not come properly to terms with the new situation. The Soviet model of management functioned (though not always efficiently) under conditions of a planned economy with cheap labor and a workforce that had no effective civil rights. But it is inoperable in new conditions of depopulation, lack of labor resources and development of a genuine market for labor.

Government needs to understand this, to face up to the new realities and learn to define and address new tasks . What are the specific features of the new stage?

On one hand, transition from planned to market regulation of migration has been dogged from the outset by a state of crisis in economic and social life. Difficulties reforming Russia's social-economic space were reflected in internal migrations. Movement to new permanent places of residence and temporary migration to other regions were people's response to development inequality between different regions and contrasts between local labor markets. Migration enabled some people to satisfy their aspirations and others to resist impoverishment of their households (mostly successfully). To this extent the modern process of internal migration represents people's adaptation to new socio-economic realities.

On the other hand, the scale of migration to new permanent places of residence declined in the 1990s and has not resumed, so needs of regional economies and urban formations for redistribution of population and labor remain unsatisfied.

Russia has a problem of structural unemployment, and migration has not yet enabled self-regulation of local labor markets. So-called "poverty traps" exist, catching residents of depressive regions who cannot afford to pay for travel and initial expenses of searching for a job and housing in a new region[20]. We have also shown that there are many obstacles in the way of would-be migrants.

The recent upsurge of temporary migrant labor, dividing millions of Russian families between place of residence and place of work, should not be viewed as an acceptable and stable state of affairs. This is essentially "latent" internal migration: a person works, lives, uses services, and pays taxes in a region, but remains unrecognized and invisible to statistics and government in that region, and in most cases without registration at an address there. The migrant way of life and lack of social control from the family encourages hard drinking and related problems. Migrants' families are more likely to have problems bringing of children. In any case a temporary worker is not always an adequate substitute for a permanent worker.

This is not to suggest that temporary labor migration has to be stopped. But it is necessary to extend freedom of choice and eliminate obstacles, which prevent relocation to a permanent place of residence, to reduce expenses related to migration, to develop flexible forms of work, etc.

Appearance in Russian cities of large numbers of foreign migrants – "Gastarbeiter" – is less extraordinary than it appears. These migrants are the modern version of workers who used to be brought in from other parts of the Soviet Union to fill labor shortages in specific labor sectors in specific regions (so-called "limitchiki"), who also agreed to do jobs with low prestige that were undesirable for the local population. The main difference is that today's Gastarbeiter have less social protection and, due to ethno-cultural differences, are viewed with more suspicion by local populations.

Internal and external migration are interconnected and this link deserves serious attention. Demand for labor in large cities is the driving force for migration in modern Russia. It stimulates migration both within regions and between different parts of the country. By meeting part of the demand for labor in fast-developing regions of markets European Russia, external migration puts limits on the western drift which is leading to depopulation of the Asian part of the country.

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* This and further chapters use the results of the research carried out by The Center for Migration Studies (Moscow) under the financial support of John D. and Catherine T. MacArthur Foundation .

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[10] The data reflect the number of REGISTRATIONS at an address but not the number of registered people, staying at any one time in the capital. Since registration at an address and registration of migrant status are carried out for different periods of time, the same person might be registered at new addresses several times during one year. For detail see: O. Chudinovki, Migration statistics are not comprehensive / Demoscope Weekly, № 335-336, June 2-15 2008 http://demoscope.ru/weekly/2008/0335/tema01.php

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[14] Here and in what follows data of the Center for Migration Study are used.

[15] Carried out by the Center for Migration Studies in association with the Levada-Center, December 2005, in 10 Russian regional centers: St. Petersburg, Novosibirsk, Nizhny Novgorod, Kazan, Krasnodar, Vladivostok, Orenburg, Belgorod, Smolensk, Nalchik. Total number of respondents was 3220, the whole population in the representative sample was interviewed.

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Chapter 5

IMMIGRATION: SALVATION OR A TROJAN HORSE?*

Just 20 years ago Russia, in contrast with most developed countries, had almost no experience of international migration. Nowadays, migration is a fact of life. 20 years is a very short period of time in historical terms, and the change has given rise to many real and imaginary problems in the economy, politics and all spheres of social life.

The country was psychologically and organizationally ill prepared for such developments and adaptation has been more difficult because much of the migration has been forced migration (including large-scale return of native Russians). Meanwhile, traditional migratory exchange between former republics of the USSR – educational migration, displacements related to military service, and labor migration – saw a sharp decline after Soviet break-up. These aspects have overshadowed less evident but deeper transformations of migration processes, conditioned by, at least, three factors: Russia's entry into a new stage of demographic development (depopulation); the appearance of a new geopolitical configuration of the territory of the former USSR; and changes in the nature of migration at a global level.

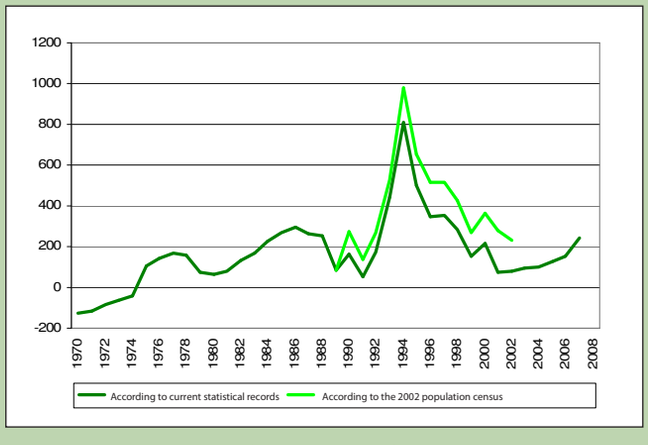
Today this transition period is almost over and the time has come to take stock of the new role of international migration and to evaluate the related challenges.

5.1. Migration growth has compensated about half of natural population decrease in Russia

The mid-1990s were marked by an unprecedented upsurge of migratory population gains. Of total 6.2 million people, who migrated to Russia in 19 years after the population census of 1989, about 60% arrived in the 6-year period from 1993 to 1998 (Figure 5.1).

The volume of registered net migration decreased almost threefold at the end of 1990s and was under 100,000 per year in 2003-2004. A low point of 99,000 in 2003 was followed by steady growth from 2004 to a level of 240,000 in 2007.

The large flow of immigrants in 1993-1998 did much to compensate Russia's natural decrease of population, which started in 1992. Migration in these 6 years gave 3.6 out of 5.7 million total migratory gain in 1992-2007, replenishing nearly half (46%) of natural loss of population. This upsurge was less due to growth of new arrivals than to decrease of the number of people quitting Russia. The number of immigrants jumped to 1.2 million in 1994 due to clear economic advantages of Russia compared with other CIS countries, but declined rapidly



Source: Federal Agency for Statistics of the Russian Federation

Figure 5.1. *Migration gain in Russia, 1970-2007, thou. persons*

after fighting broke out in Chechnya.

However, it is important to remember that these figures only include people registered by Rosstat as taking up permanent residence in Russia and that such accounting depends to a great extent on rules for registration of arriving foreigners, which were in force at various times. Laws on citizenship and legal status of foreigners in Russia, enacted in the early 2000s, complicated the procedures for legal registration of immigrants and changed the rules for statistical accounting. Because of this, the level of registered immigration dropped to its lowest value (119,200 people in 2004). Numbers recovered somewhat afterwards, but this effect was probably more due to statistical corrections by Rosstat than to a real increase of immigration[1].

Obvious incompleteness of migration accounting makes it impossible to obtain a full picture of migration gains. Available data justify a more or less confident estimate that actual gain after 2000 was at least 2 or 3 times greater than the official figure, which fails to include migrants who arrived on a temporary basis but with the intention to stay in Russia permanently and who de facto became permanent residents (though not de jure, due to administrative obstacles).

According to expert estimates, the total number of migrants in Russia at one time, including temporary labor migrants, was as high as 8 million persons at the end of 2006.

This estimate coincides with the number of foreign citizen arrival notifications, received by the Migration Service in 2007: almost 8 million people, including those who arrived on business, on a visit, and for short-term medical treatment, were registered. This match either suggests some overestimate by experts of the real number of migrants or represents evidence that, despite some simplification of procedures, many migrants have not been registered.

As shown in the diagram below, illegal immigration has been estimated at 4-5 million persons, of whom about 30% had neither registration nor right to work.

Some of them were de facto permanent residents of Russia, living here with their families, but could not obtain temporary or permanent residence. A sociological survey among Ukrainian labor migrants in Moscow, carried out by the Center for Migration Studies in 2002, found that half of these migrants had been living in Moscow for more than 3 years. As the diagram shows, labor migration is the main component of illegal immigration.

Trends in immigration, which goes unrecorded by statistical accounting, are unclear, but there are unmistakable signs of growth. One indication is rapid increase in lawful labor immigration. In 2006 the number of foreign citizens working legally in Russia exceeded 1 million (1,023,000) versus 702,500 in 2005, 460,400 in 2004 and 380,000 in 2003. Growth of the Chinese work force in Russia was particularly rapid: from 94,100 in 2004 to 160,600 in 2005, and 230,000 in 2006.

Migration gain is a result of interaction of two opposite processes: immigration and emigration (Figure 5.3).

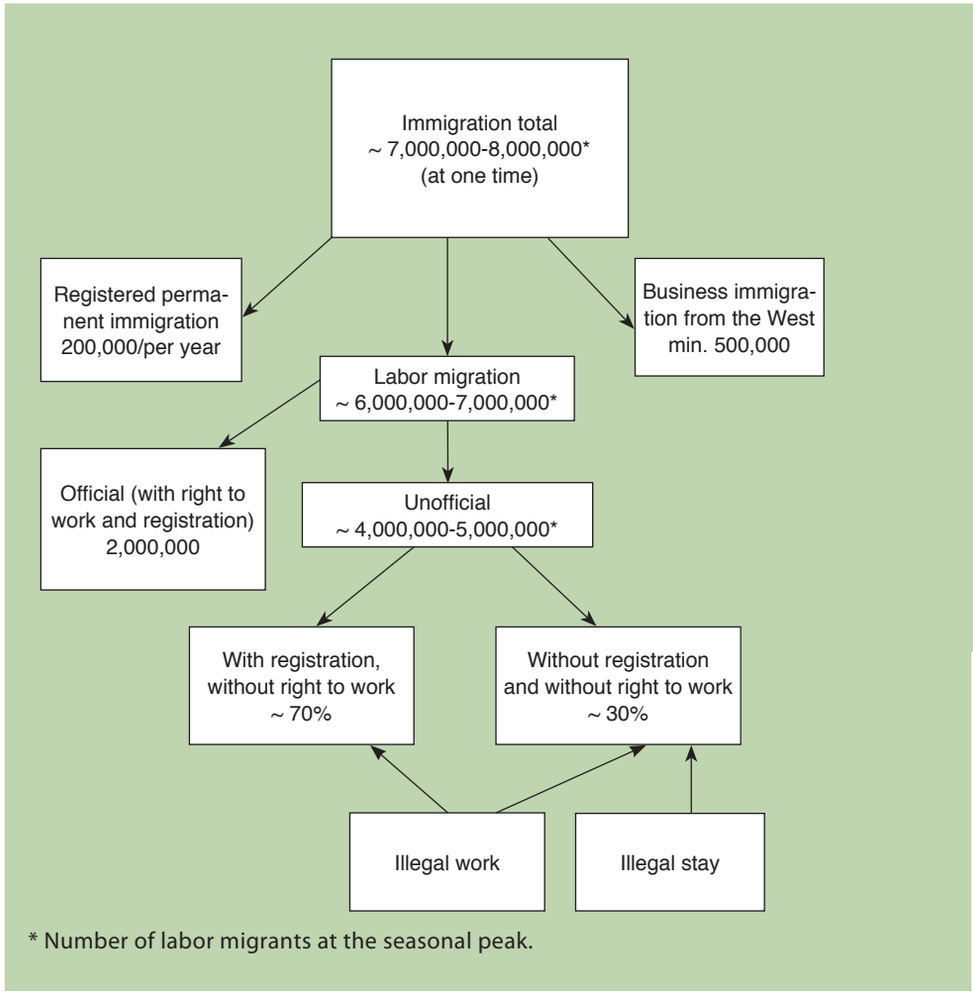
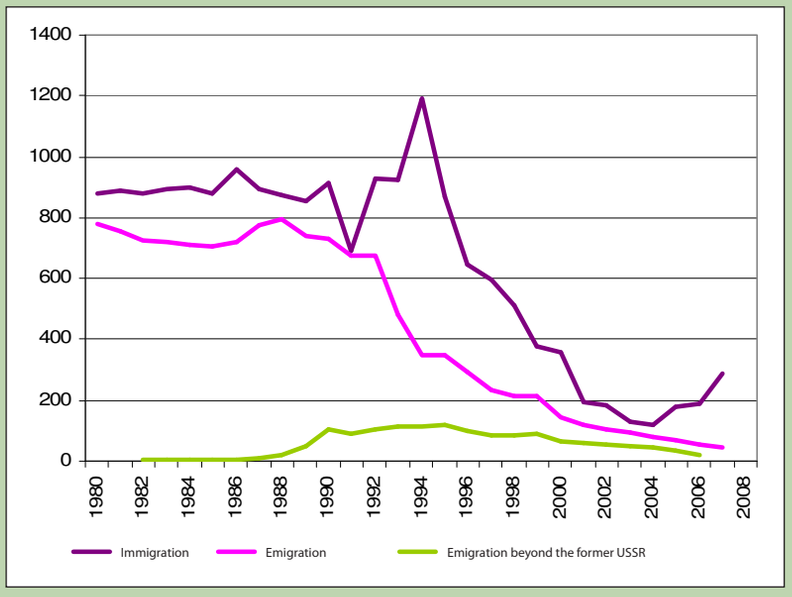


Figure 5.2. *Migration inflows to Russia (start of 2008)*

Full scale inclusion of Russia in the system of international migration has created the grounds both for immigration into the country and for emigration from it. In the early 1990s the collapse of the USSR led to a sharp decline in the number of people moving to former USSR republics, and this was the main reason for the upsurge of migration gains, mentioned above. However, departures beyond the former USSR increased.

Not all such departures are recorded. Estimated loss of Russian population due to departure beyond the territory of CIS countries had totaled about 3 million persons since the late 1980s, which is double the official statistic (1.4 million in 1989-2007, or a quarter of all those recorded as having left Russia). Emigration flows beyond the former USSR gradually caught up with flows to CIS countries and the two were almost level in 2003. However, both statistics have been on a downward trend in recent years.



Picture 5.3. *Registered international migration in Russia, thou. persons*

According to statistics, a sharp increase in emigration outside the former USSR in the early 1990s was followed by a decline, and by 2006 these flows had returned to their level in the late 1980s. But this tends to understate the case: a significant share of emigrants is not registered as having quit their address in Russia and are therefore not recorded as emigrants. Overall, emigration from Russia is not viewed as a problem at present, but that is not to say that it will not become one in the future.

Risks associated with emigration are usually presented in the context of the "brain drain" issue. However, in a period of depopulation the mere fact of emigration losses becomes undesirable. And there are good reasons to suppose further increase in rates of departure from Russia.

At present, emigration beyond the former USSR still has an ethnic, selective nature. Particular ethnic groups (Jews, Germans, Greeks) are more disposed to leave because they have historical homelands to go to. But significance of this factor is gradually declining. Ethnic Russians, leaving independently or as part of mixed families, are an increasing share of total emigrant numbers. Half of emigrants who left in 2007 to Israel and Germany, two thirds of those who left to the USA and 55% of emigrants to other countries were Russians. Emigration by Russians has obtained independent importance although it is constrained by limited opportunities and tougher entrance rules to all developed countries in recent years.

Those who emigrate from Russia's big cities are most likely to move outside the former USSR. According to a survey, carried out in 2005 by the Center for Migration Studies, one of every three residents of Kazan, who were considering or planning to move elsewhere, wanted to move to the "far abroad" (outside the former USSR). The figures were one in four for Nizhny Novgorod and Novosibirsk, and one in three for St. Petersburg. These cities are rated high in the resettlement hierarchy and their residents see no point in trying to solve their problems by moving to another city in their native country.

Emigration may receive a further impetus from the rapidly changing situation in East European and Baltic countries, which have lost a significant part of their labor forces since joining the European Union,. In order to replenish the loss, some of these countries (including the Czech Republic, Poland and Lithuania) intended to open their doors to workers from Russia, Ukraine and Belarus. Competition for labor resources with Ukraine is also possible in the more distant future. At present emigration loss from Ukraine is equal to that from Russian in absolute terms, and is much

higher in relative terms, while the demographic situation in Ukraine is worse. But Russians have always been willing to move to Ukraine and, if the political situation there stabilizes and the economy grows, migration from Russia to Ukraine may resume.

5.2. Two types of immigration to Russia: Repatriation and economic migration

5.2.1. Russians coming home

Russia's large-scale migration gains during the last 15-20 years, particularly in the mid-90s, were different in kind from immigration to many developed countries, which host large numbers of foreigners.

Migration flows to Russia in this period have consisted mainly of returning Russians and other ethnic groups with homelands in Russia – people who themselves left Russia at some earlier time or whose parents or forebears left the country. Another, relatively small part of the inflow consists of russianized Ukrainians, Belorussians, Armenians, Georgians, Germans, Jews and so on. This "repatriation migration" of the 1990s was not an absolutely new phenomenon, but followed the pattern of the 1960s, when Russians and Russian-speakers moved out of Transcaucasia, and of the mid-1970s, when they left Central Asia and Kazakhstan. In the 1990s the repatriation sharply increased and affected all post-Soviet non-Slavic countries, including Moldova and the Baltic states. This immigration consists essentially of returning Russians.

Statistics prove this. Two thirds of Russia's migration gain in 1989-2007 consists of Russians, and about 12% consists of other ethnic groups originating from Russia (dominated by Tatars). So almost 80% of the gain was provided by repatriation migration.

Table 5.1. *Net migration of Russians from CIS and Baltic countries, 1989-2007* *

Countries	Number of Russians in 1989, thou. persons	Net migration of Russians in 1989-2007, thou. persons	Loss of Russian population in 1989-2007 in % to 1989	Number of Russians as reported by national censuses
Belarus	1342	8.3	0.6	1142 (1999)
Moldova	562	75.3	13.4	412* (2004)
Ukraine	11356	378.0	3.3	8334 (2001)
Azerbaijan	392	198.4	50.6	142 (1999)
Armenia	52	35.9	69.0	15 (2001)
Georgia	341	166.2	48.7	68 (2002)
Kirgizia	917	272.1	29.7	603 (1999)
Tajikistan	388	239.2	61.6	68 (2000)
Turkmenistan	334	108.9	32.6	299 (1995)
Uzbekistan	1653	551.0	33.3	•
Kazakhstan	6228	1340.3	21.5	4480 (1999)
Baltic States	1725	203.6	11.8	1274 (2000, 2001)
Total	25290	3577.2	14.1	16837**

* Including Trans-Dniestr
** Excluding Uzbekistan

Source: Federal Agency for Statistics of the Russian Federation; Population of Russia 2005. Thirteenth Annual Demographic Report. Moscow, 2007, p. 199.

Most of the registered immigrants already had Russian citizenship (75% of those who arrived from CIS and Baltic countries and 71.1% of those who arrived from other countries in 2007).

The return of several million people originating from Russia has had very favorable overall impact on Russia's demographic situation. Potential of such immigration is not yet exhausted, but it should not be overestimated. Millions of Russians still live outside Russia, but, for various reasons (migration to Russia, natural loss, change of ethnic identification, etc.) their numbers are shrinking. According to data of population censuses, carried out at the turn of the century in post-Soviet countries, of 25.3 million ethnic Russians, living in these countries in 1989, only 17 million were left by 2000 (Table 5.1), and their numbers have declined even further since then.

A large part of Russians in ex-Soviet republics are in Ukraine, Belarus and Kazakhstan, where they have put down deep roots and cannot be viewed as a highly mobile resource for future immigration. Mass departure of Russians from the Baltic States is also improbable. Sociological research reports significant potential for Russian repatriation from Kazakhstan, Uzbekistan and Kirgizia (estimated at 4 million persons) and some of this potential will certainly be realized. But, in general, the period of mass homecoming to Russia is over.

This is borne out by low efficacy of ongoing state programme to promote voluntary return by Russians in the period from 2006 to 2012. By the end of 2007 there were 26,400 people taking part in the programme, 4355 application forms had been accepted and 526 decisions had been taken to issue certificates allowing 1271 people to move to Russia. In fact, 363 certificates were issued for 915 persons, and the actual number of people who moved to Russia was 682 compared with a target for 2007 of 23,000 persons. This result, though preliminary, is a clear sign of decline in motivation to move back to Russia..

5.2.2. Economic migration

Return immigration is mainly driven by social, political and cultural motives, but another type of immigration of an absolutely different nature is currently gaining in importance. This type of immigration, typical for the majority of developed countries, is of a standard nature: people from poor and overpopulated countries, which are experiencing demographic booms, leave for more prosperous countries, which are experiencing depopulation. This is economic migration, driven by desire for better living standards.

This type of migration is not new for Russia. It developed when the USSR was still in existence, and was treated as domestic rather than international, and as a desirable cross-flow of population from "labor-excessive" to "labor-deficient" regions of one and the same country. Some measures were even taken to encourage movement of labor from Central Asia to European Russia and some other Russian regions, but uncontrolled migration from overpopulated republics occurred irrespective of these measures. For example, the number of Moldovans in Russia increased by 69% between the population censuses of 1979 and 1989, while population in Moldova itself rose by only 10.5%. The same statistic for Georgians and Armenians was 46% (10.3% and 13.2% respectively in their own republics), 2.2 times for Azerbaijanis (24% in Azerbaijan), 1.8 times for Uzbeks and Turkmen (34%), 2.9 times for Kirgiz (33%) and 2.1 for Tajiks (46%).

Collapse of the USSR was followed by widening economic inequalities between former Soviet republics, which had been kept level in the framework of a single state. Naturally, this inequity led to increase of labor migration to Russia from these republics.

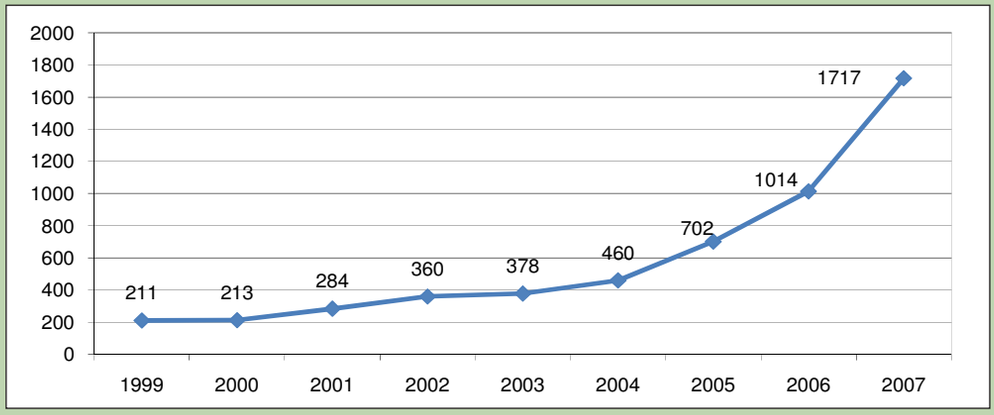
Official statistics show that 17.5% of migration gain since the 1989 census has consisted of titular nationalities from ex-Soviet republics, but the 2002 population census suggests that a much greater number of CIS natives have in fact entered Russia. The census suggests that the number of Tajiks in Russia had increased by 82,000 in 2002 compared with 1989, and annual statistics for the next three years (until 2005) shows further inflow of 36,700; respective data for Azerbaijanis and Armenians are: 286,000 vs. 92,000 and 598,000 vs. 373,000.

A shift from repatriation to economic migration is evident from decline in the share of Russians in total migration gain received by Russia from as a result of migration exchange with CIS and Baltic countries: from 81% in 1989-1992, to 64% in 1993-2000, 59% in 2001-2004, 54% in 2005, 44% in 2006, and 32% in 2007.

It is important to bear in mind that all the figures cited above refer to registered migration, and that economic migrants represent the greater part of illegal immigrants. This suggests that economic migration, which is typical for all developed countries, now also dominates overall migration volumes in Russia. Russia, as a host country, becomes more similar to developed countries in this respect. Russia is now a destination for migrants from CIS countries, but also from states in South-East Asia and the Middle East, as well as acting as a transit route for international migration. The future of Russian international migration is clearly to be defined in terms of economic (labor) migration.

5.3. The number of labor migrants in Russia is rising rapidly

The number of labor migrants, officially working in Russia, has seen steady growth since the late 1990s. In 2006 their number exceeded 1 million persons. Registered labor migration flows intensified in 2007, after adoption of a new, more liberal law. A total of 2.26 million migrants obtained the right to work in Russia in 2007, which is double the number in 2006, and there were 1.717 million foreigners working legally under contract in 2007 (Figure 5.4).

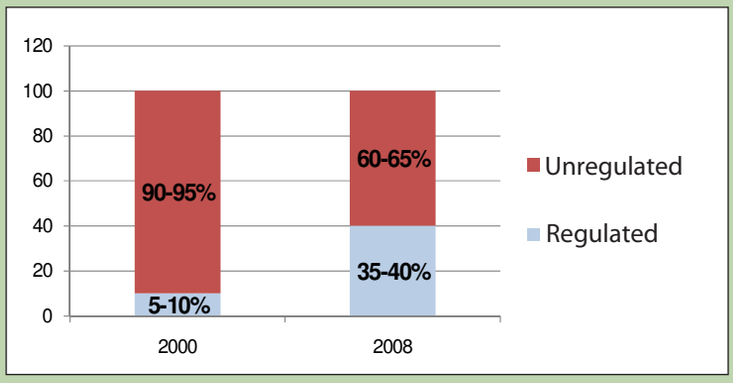


Source: Federal Migration Service of the Russian Federation

Figure 5.4. *Number of labor migrants, working legally in Russia, thou.*

However, increase of labor migration, registered by statistics, is not primarily an indicator of general growth of migration. What it indicates, first and foremost, is a shift in the balance between regulated and unregulated immigration components in favor of the former (Figure 5.5).

Estimates of the number of illegal (or illegally working) immigrants in Russia fluctuate between 5 and 15 million persons. Assessments of illegal migration based on studies report 3-4 million persons in the early 2000s, rising to 5-7 million by 2005-2007. Seasonal variations can reduce numbers by 1.5-2 times in the off-season[2].



Source: Expert assessment

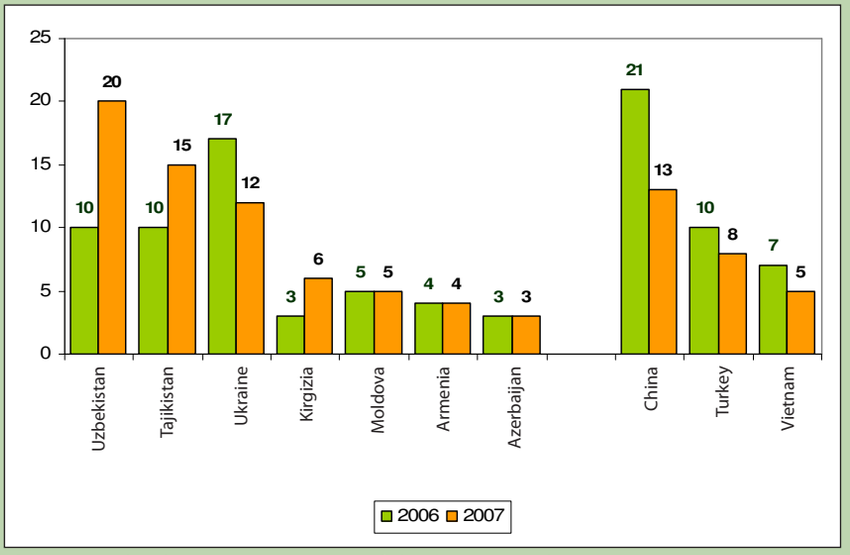
Figure 5.5. *Share of regulated and unregulated components of labor migration*

It is hard to assess labor migration flows at present, since the unregistered component is very large and its development trend is unclear. Most probably, fast growth of such immigration, which marked the first half of the 2000s (almost unnoticed by statistics but clear to any observer), has now given way to smoother increases.

Growth of labor migration, albeit at lower rates, reflects increasing Russian demand for foreign workers, due to shrinkage of the country's own labor resources, and growing supply from main donor-countries, which have rapidly growing and highly mobile populations. However, total growth of labor migration is definitely not as rapid as increase of its regulated component, shown in Figure 5.4.

Immigrants come to Russia from more than 100 countries worldwide. However, the flow from CIS countries is dominant and growing, while the share of main "far-abroad" donors (China, Turkey and Vietnam) is declining. This can be explained by liberalization of labor migration rules, which now allow visa-free entry to Russia for migrants from CIS countries.[2] According to official data, the share of CIS countries in legal migration flows increased from 53% in 2006 to 67% in 2007. Their share of real flows may be even higher, as they are believed to account for the majority of so-called "illegals".

Contribution of different CIS countries to total flows has altered, with a major shift in favor of the Central Asian states. In 2006 Ukraine ranked first among CIS countries by numbers of migrants to Russia, and the total number of migrants from Uzbekistan



Source: Federal Migration Agency of the Russian Federation.

Figure 5.6. *Share of main donor-countries in structure of labor migration to Russia, 2006 and 2007, %*

and Tajikistan was only just higher than the number from Ukraine, but in 2007 each of these Central Asian countries separately overtook Ukraine (Figure 5.6)[4].

Estimates including unregulated migration suggest that Ukraine gives Russia at least 1 million labor migrants, and Moldova up to 500,000, but flows from these countries are gradually shifting from Russia to Europe. Trans-Caucasian countries give maximum 1.5 million immigrants to Russia, and rapidly growing migration from Central Asia gives 1.5-2 million (of which 500,000 from Tajikistan, the same number from Kirgizia, and over 700,000 from Uzbekistan)[5].

According to available data, labor migration to Russia continues to be male dominated. A sample survey shows that 70% of migrants are men, and official statistics suggest that the share of men is as high as 84%. But there are grounds to believe that female migration is much underestimated both by official statistics and by sociological surveys. Typical occupations of women-migrants (informal household and entertainment personal services, sex-services, etc.), often make them "invisible" both for official statistics and for researchers. But Russia is developing in line with global economic trends and service industries provide 2/3 of work places in modern economies, so increase in the number of women migrants can be expected in the future.

Observations report decline of educational levels among labor migrants. At the beginning of the current decade, almost half of labor migrants had higher education, but that had declined to 13% by 2006[6]. Half of migrants arriving in Russia have no professional training and are only suited for unskilled labor. Migrants with low educational level and no professional training are the least adaptive and the most problematic group on the labor market. As economic migration increasingly outweighs repatriation migration, the former is drawing in more population cohorts from donor countries and its structure is changing. Main structural changes are:

- from residents of large cities to residents of small towns and rural areas – over 70% of migrants come to Russia from small towns and villages in their home countries;
- from more educated to less educated migrants – the level of education and professional training of ‚migrants is decreasing and 50% of migrants have no professional education;
- from more prosperous to less prosperous social strata – the majority of migrants consider themselves as belonging to the poor (38%) and very poor (46%) in their home countries;
- from migrants culturally close to Russians to migrants with larger cultural distance – the share of Muslim countries of Central Asia in the structure of migration flow is increasing (to 41% in 2007); migrants have limited knowledge of the Russian language (10-15% of migrants have poor knowledge of Russian, and 20-40% (depending on region of origin) have inadequate knowledge).

Russia therefore now has to deal with a qualitatively different type of immigration as compared with the beginning of the current decade. Culturally remote and less adaptive immigrants present serious challenges for migration policy, which has to take account of these changes.

5.4. Russia needs economic immigration

Supply from CIS countries to the Russian labor market is one aspect of migration. The other aspect is the level of demand in the Russian economy for foreign labor Economic migration to Russia is increasingly important because Russia needs it: such migration has an ever greater role in the country's demographic, economic and cultural development.

Russia has been increasingly affected since the millennium by a demographic deficit, which is becoming ever more acute due to shrinkage of the population (since1992) and shrinkage in the share of the population of working age (since 2007). Immigration is essential to compensate the country's own dwindling demographic and labor potential, without which economic growth and maintenance of current geopolitical status will be impossible. Migration is one of the most important factors for successful future development of the country and immigration policy is a key state priority.

The significance of migration will increase in coming decades. As mentioned in Chapter 1, natural decrease of the Russian population, as predicted by the medium forecast of Rosstat, will exceed 11 million persons in 2008-2025. Loss of working age population will be even greater. If Rosstat's medium forecast is realized, population of working age will shrink by 8 million persons up to 2015, and by 14 million up to 2025. The biggest decline of working-age population will be between 2011 and 2017, when the average annual loss will exceed 1 million. So labor will be one of the most deficient resources in Russia in the near future[7]. The government's economic growth targets will not be achievable without mass involvement of labor migrants, even assuming labor productivity increases. According to calculations, Russia must attract about 15 million workers in order to cover its labor shortage.

Indeed, labor migration has already become a necessity for successful operation of the Russian economy. Migrants have occupied specific niches in many Russian regions, particularly in large cities with rapidly growing economies, and these niches will continue to deepen and expand. In these regions foreign labor has become a structural feature, without which the economy cannot operate.

At present most labor migrants have temporary employment in the private sector of the Russian economy. The role of immigrants in different sectors of the economy varies. According to official data, 40% of construction workers are migrants, 20% of retail workers, 10% of those employed in the service industry, and 7% apiece in agriculture and production (Table 5.2).

Retail trade was the only sector, which saw major changes in 2007: the number of foreign workers in retail declined due to limitations on their hiring, which were brought in at the start of the year.

The biggest immigrant contribution is in construction, where the officially reported share of foreign workers exceeds the average by 4 times. Share of the legal foreign work force in construction was 13% in 2007 compared with average 3.2% in the whole economy (the figures in Moscow were 19% and 7.6%, respectively). Migrant labor is increasingly noticeable in retail, transport, road building, housing and utilities infrastructure, as well as private and social services in the country's biggest cities. Large shares of foreign labor should also be expected to appear in other employment sectors, which are traditionally popular among immigrants in the host countries of Europe, America and Asia (textile industry, raw materials extraction, home helps, etc.).

The market for domestic workers (baby-sitters, nurses, housemaids) is increasingly apparent in Russia today due to expansion of the middle class, mostly in Moscow and other large cities. The largest and lowest-priced section of this market is taken mainly by immigrants (mostly from Ukraine and Belarus), and is already well-structured in Moscow, with accepted rates of payment and specialized agencies, which find personnel and offer other services.

Table 5.2. *Distribution of foreign labor in Russia by employment profile, %*

	2006	2007
Total	100	100
including:		
construction	41	40
trade	27	19
processing industry	7	7
agriculture	7	7
service industry	…	5
transport	4	4
mineral extraction	…	2
other types of economic activity	13	16

Source: Federal Migration Service of the Russian Federation

Actual structure of immigrant employment may differ from official estimates due to uneven distribution of informal and shadow employment in different spheres of the economy. The service industry, including nursing, entertainment and other fields of activity with high shares of informal labor, is least represented in official statistics. And services are the most labor-intensive sector of the economy. Russia, in line with global trends, is experiencing rapid growth of the service industry, so increase of demand for foreign labor can be expected in the near future. The opinion (frequently aired) that "Russia needs only qualified migrants" is, in fact, inaccurate.

Migrant labor has an important role on world markets, and this is true of both non-qualified and qualified labor (managers, scientists, hi-tech workers, IT-specialists, etc.). Russia also has highly qualified immigration, but mechanisms for attracting skilled workers still leave much to be desired. Such immigration will, no doubt, develop as demand for employees increases. The Russian government is working on this problem and specific managerial solutions and programmes for attracting highly qualified personnel are being put in place (including a point-rating system for migrant assessment and selection, extension of the list of priority professions, in which quotas are not necessary, and involvement of migrants in the professional education system).

Including the shadow component of labor migration, which is as high as 5 million at the seasonal peak, the average share of foreigners in the Russian workforce at present is about 10%. This matches the share of foreign workers in Germany and Austria.

So the Russian economy will become more and more dependent on foreign labor in the future. The unfolding economic crisis may slow down demand on the labor market for some time and create an illusion that foreign labor is not needed. But any such decline of demand will have a temporary nature and be followed by even more intensive use of foreign labor in the post-crisis period.

5.5. Migration is governed by economic laws

Labor migration is not just essential for Russia – it is also inevitable. Cross-flow of work force between labor markets in different countries is always an objective reflection of varied potential of national economies (Table 5.3). Difference between levels of demographic and economic development, and between living standards in Russia and the main donor-countries (CIS and South-East Asian countries) will continue to generate labor migration to Russia for a long time to come.

Most modern theories are agreed that migration is beneficial for both host and donor countries. Studies in the West suggest that migration has practically no negative impact levels on unemployment and labor remuneration in host countries[8]. American scientists, using a neo-classical approach based on gain and loss assessment, say that total gains, which countries can obtain from liberalization of migration will be 25 times greater than the gain from international trade and finance liberalization[9].

Table 5.3. *Wages and GDP per capita in CIS countries*

	Monthly nominal wage in CIS countries (US dollars; 2006)*	GDP per capita (US dollars, 2005)**
Azerbaijan	166.8	5.0
Armenia	149.8	4.9
Belarus	271.2	7.9
Georgia	…	3.4
Kazakhstan	323.5	7.9
Kirgizia	81.4	1.9
Moldova	129.2	2.1
Russia	391.1	10.8
Tajikistan	35.2	1.46
Uzbekistan	…	2.1
Ukraine	206.2	6.8

Source: Commonwealth of Independent States in 2006. Statistics Annual. Interstate Statistical Committee of CIS countries. Moscow, 2007, p. 134.

Doubts are sometimes cast on positive effects of migration. In his speech at the Session of the UN General Assembly, "High-level Dialogue on International Migration and Development", held in New York on September 14-15, 2006, the Director of the Russian Federal Migration Service, K.O. Romodanovsky, said that economic losses in the form of unpaid taxes due to illegal migration are more than USD 8 billion per year and that migrants from CIS countries export over USD 10 billion from Russia annually, by-passing the system of state control. The volume of registered money transfers by CIS workers in 2005 was above USD 3 billion. Advantages obtained by Russia from migration are mentioned more rarely (in reports by experts, stating that migrants produce at least 8-10% of Russian GDP)[10].

Significant gains for the economies of host countries are due, primarily, to relative cheapness of foreign labor. Indeed, demand for "cheap labor" is a more complex economic phenomenon than it is usually thought to be. It may be explained by unfair competition and desire of businessmen to maximize their profits, but it is also a reaction to unfavorable economic conditions for small and medium business, in which migrants are mostly employed.

Willingness of the migrant to work on an informal basis for low wages is what gives him a competitive advantage over local workers. This willingness also reflects the unfavorable economic situation in donor countries where, even if they could find a job, the migrants would receive much lower wages than in Russia.

Labor migration to Russia from CIS countries has strong incentives associated with the state of affairs in those countries. According to surveys by the International Organization for Migration in 2006, about half of all polled migrants did not have steady jobs in their native country (they were either unemployed or had temporary jobs).

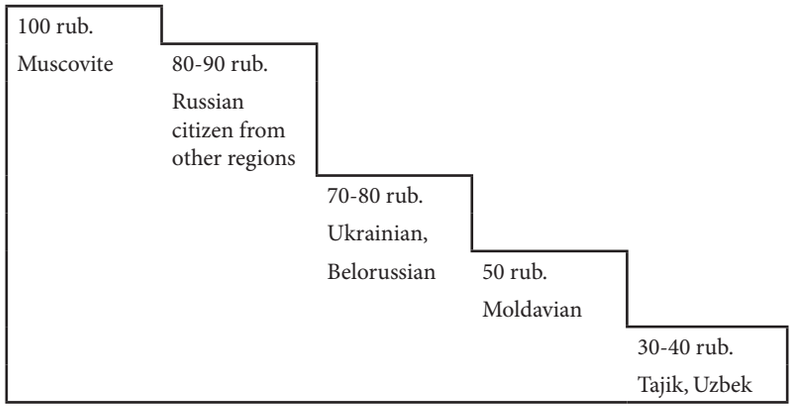
Despite their young age, more than a half of migrants have own family and children; about a half are the only breadwinners in their family. On average, every migrant has 3 dependent persons. Before they came to Russia half of migrants from CIS countries belonged to the group of the very poor, lacking sufficient income for daily needs (food, clothing, etc.). Despair and lack of any way of supporting their family in the home country made them willing to accept exploitative and (often) slavish labor conditions in Russia.

According to surveys by the International Organization for Migration in June-September 2006, the average wage of a migrant in Russia was 11,000 rubles per month (about USD 420). That is equal to the average monthly wage in Russia (10,900 rubles according to Rosstat data as of September 2006), so it appears to be generous. But it should be remembered that migrants work, on average, 60 hours per week (20 hours more than Russians), and that 1/3 of migrants work 70 hours and more, i.e. 10 hours per day without days-off.

Most migrants are in jobs with no prestige, which are unattractive to natives: low-paid employment involving heavy work, with a seasonal or temporary character in shadow spheres of the economy. But it is wrong to pretend that migrants do not compete with native workers at all. Such competition exists in some spheres. Readiness to work for low wages and forego social guarantees are the competitive strength of migrants. So there is no simple answer to the problem of competition between migrants and native workers. None of the polar points of view:

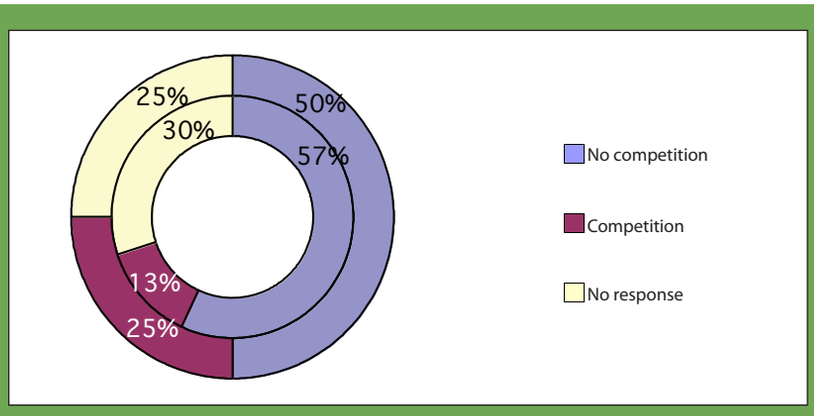
- "migrants are squeezing native workers out of the labor market"; and
- "migrants and native workers do not cross paths on the labor market"

stands up to strict examination. The picture is more complex. Half of polled migrants say that local workers make no claims to the jobs, which they do. In regions and employment spheres where migrants labor has been long and intensively used (for example, Moscow), the market has been divided and competition between migrants and local workers is less acute (Figure 5.7).



Competition between migrants and local workers, and between the migrants themselves, depends, in particular, on existing segregation of labor remuneration by ethnic origin. Employers, who use foreign migrant labor in Moscow, describe the following relative wage ladder[11]:

As well as making a direct contribution to Russia's economy, labor migration to Russia serves as a stabilizing factor throughout the CIS, supporting social stability and contributing to economic growth and formation of a middle class in donor countries.



Source: Survey by the International Organization for Migration, 2006.

Picture 5.7. *Answers of labor migrants from CIS countries to the question whether they experience competition with local workers for employment (inner circle shows Moscow, outer circle shows the average for pilot regions of the Russian Federation), %*

5.6. In the shadow of a migrant economy

High share of the informal and shadow economy is a specific feature in Russia. The unregistered economy is estimated to account for 20-25% of GDP. The share in sectors employing migrants (construction, trade, services) is much higher – up to 60% of sectoral GDP[12].

The informal and shadow economy always has high demands for cheap and legally unprotected labor. To the extent that migrants meet this demand, the unregistered component of migration tends to increase. As a rule, such demand reflects the desire of employers to save on wages, taxes and social expenses, but it also reflects their need for flexibility, variation of work volumes (for example, in seasonal businesses), and desire to avoid multiple inspections by government authorities. These motivations lead to typical features of migrant employment: confiscation by the employer of the migrant's passport in order to increase power over him; payment "on completion of the work", meaning uncertain work terms with no guarantee of remuneration; limitation of freedom of movement; absence of social guarantees, etc. Shadow employment arrangements and numerous violations of migrant rights are typical both for "illegal" migrants and for migrants, working in the Russian Federation on a lawful basis (see Box 5.1).

According to data of sociological surveys, about 80% of migrants work without any written labor agreement and therefore receive labor remuneration in cash without proper documentation or payment of social and income taxes. Only 17% of migrants have rights to paid holiday and only 15% are paid when they are sick.

The huge scale of shadow employment of migrants is a peculiar feature of Russia, and represents a serious challenge for development of the economy and growth of migration. Migration policy has taken the first steps to overcome obstacles, which prevent legalization of migrants, but the task of eliminating shadow employment among migrants has not been tackled. Because they want to keep at least a part of their business off the official radar, employers do not sign employment agreements with workers and pay wages "in an envelope". As reported by the Federal Migration Agency in 2007, notification of new hires from employers were received for only of 47% work permits, issued to residents of CIS countries. So, even among legal labor migrants with rights to work, more than a half are employed in the shadow sector (under conditions where the employer is unwilling to "declare" his worker, and therefore does not send a notification of the new hire to the Federal Migration Agency and Rostrud). According to the 2006 survey by the International Organization for Migration,

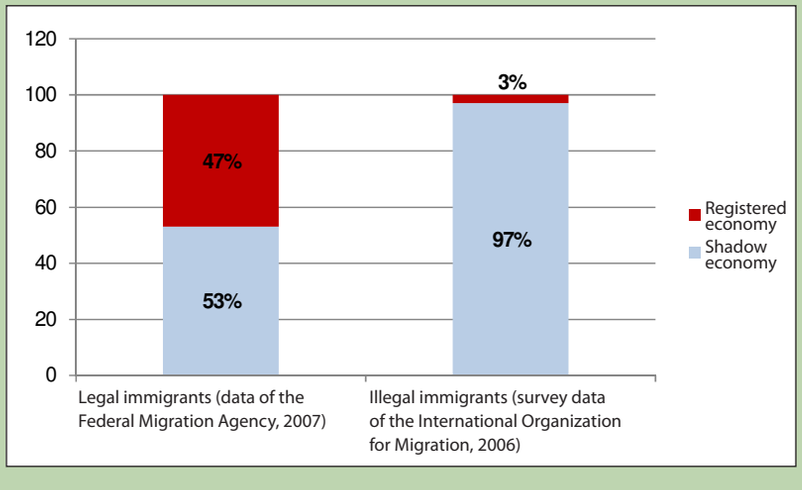


Figure 5.8. *Share of migrants, working officially (under contract) and shady (unofficial / no contract) employment, %*

Box 5.1. Spread of shadow practices and violation of rights of legal and illegal migrants in Russia

According to data of a survey by the International Organization for Migration, carried out in 2006, about half of all legal migrants (having all required permits) and nearly all illegal migrants are employed in the shadow sector of the economy. Rights violation, such as confiscation of passports, limitation of freedom of movement, incomplete wage payment, forced labor, etc., are most common among illegal migrants, but also occur among legal migrants.

So legal status does not guarantee that a migrant will be employed in the registered economy. This reduces motivation for migrants to legalize their status, stimulating illegal immigration.

Flagrant violation of labor and other rights of migrants, including practices of slavery and human trafficking, are most common among illegal migrants, working in the least transparent spheres of the economy: construction, the service industry, etc..

Situation of migrants	Fully legal *	Fully illegal *
Have a written contract, % of employed	51	3
Wages in undocumented cash, %	52	90
Number of working hours per week (hours)	61	64
Wage per month (USD)	499	336
Have medical insurance, %	50	6
May be dismissed at any time, %	40	76
Passport confiscated / and used to keep the worker, %	8 / 8	27 / 19
Forced to work extra hours without payment, %	24	43
Forced to do a part of overall work for no payment, %	13	17
Forced to work entirely without payment, %	6	4
Forced to work "flat out", %	24	29
Forced to work in harmful conditions, %	22	14
Limited freedom of movement, %	7	19
Complete isolation, no freedom of movement, %	9	9
Experienced physical abuse at work, %	6	11
Experienced psychological abuse (threats, blackmail, deception) ,%	10	23
Sought assistance , %	9	6
Will seek police help if employment terms amount to slavery, %	38	9

* "Fully legal migrants", are those with registration in the Russian Federation and a work permit; "Fully illegal migrants", are those without registration and without work permits.

Source: Polling of labor migrants by the International Organization for Migration in 2006 (published in: Prevention of slavery and human trafficking in the Russian Federation. Final scientific report on the EU project, realized by the IOM in the Russian Federation. Moscow, 2008, p. 54-55).

77% of all migrant workers are in this situation and the figure is 97% for illegal migrant workers (those without work permits).

Very few migrants, either legal or illegal, have recourse to law and the system of rights protection. Widespread nature of shadow employment means that judicial and extra-judicial mechanisms for protection of migrant rights and recourse in case of their violation, work inefficiently.

Migrants carry out most of their social transactions through informal links, relatives and friends, and through widely-developed shadow mediation in the sphere of migration and employment of migrants. The shadow economy has its own infrastructure, including mechanisms for labor force provision to shadow business. Such intermediaries offer various services: legalization, search for employers/workers, rent of dwellings, etc.

In the years since labor migration began, migrants have created flexible and widespread networks that can be used by coming generations of migrants to help them enter, earn money and arrange permanent residence in Russia. These networks are not necessarily well organized. Unlike traditional diasporas, they have an informal character, but they fill the vacuum created by lack of official agencies and often operate more efficiently than official structures. Today, over 70% of migrants find work through relatives and friends, i.e. through informal migrant networks. The institution of private intermediaries continues to develop and currently serves about 15% of migrant flows. Most such intermediaries act on an informal basis, with all the associated consequences.

Government channels for labor migration and official public services "serve" at most 10% of migration flows in total. The limited nature of official infrastructure for labor migration forces migrants to turn to informal resources and shadow intermediaries, increasing migration risks. A widespread and efficient network of agencies, able to offer migrants the services they need, has to be created in order to overcome concentration of such services in the informal (and therefore non-law-governed) shadow sector.

5.7. Is Russian society ready to accept immigrants?

Existence of millions of illegal migrants, legal vulnerability of (both legal and illegal) migrants, and related shadow practices are all evidence of a serious mismatch between a new large scale economic and social phenomenon, on one hand, and institutional answers to it from the state and society, on the other hand. This mismatch is not unique to Russia. Many countries are now at a stage where they must adapt to a historically new and inevitable level of international migration.

Russia is clearly far from finding adequate answers to migration-related challenges. This is obvious from the migrant-phobia, which has infected public opinion. Several aspects of the impact of public opinion on migration processes deserve to be emphasized.

First, migrants experience the attitude of native inhabitants towards them every day at first hand, in everyday situations from specific people, at their work place and where they live. Spread of so-called "household xenophobia" makes existence more difficult for migrants and slows down the integration process.

Secondly, the "false mirror" of public opinion serves as a political tool and is used by politicians and people in authority to justify their political positions and managerial actions. Anti-migrant attitudes in society are used by politicians in formulation of their political programmes and thus filter into national politics and legislation, which, in turn, has impact on the condition of migrants. Officials, who take managerial decisions at local level, are also afraid of "unpopular" measures. State officials are themselves a specific class in Russian society and may have liberal or conservative positions with regard to migration; many of them genuinely subscribe to the previously dominant view that immigration is a potential threat to Russia and must be strictly limited. This is why new liberal Russian legislation in the immigration sphere is not always supported by local officials, and tends to get bogged down and stifled by unnecessary administrative obstacles, complicating the processes of employment and legalization for migrants.

Thirdly, negative attitudes among the local population, though not always overt, fuel the ideology of double standards and social indifference towards "outsiders". Society remains indifferent to rights violation, exploitation, and slavery, believing that migrants have themselves to blame for such afflictions. As well as being very hard for migrants, this approach is also harmful for development of Russian society. Social inertia and double standards is propagated to the detriment of civil action to protect human rights.

Finally, the negative social attitude towards migrants encourages corruption and arbitrary practice among law-enforcers and other official organizations. Society gives its silent consent to excesses by officials against migrants.

5.7.1. Russian public opinion is infected with migrant phobia

No government policy can be based solely on good intentions of enlightened political leaders. Is has to be based on (at least minimum) public consent, on agreement between the main political forces on main lines of action. Achievement of such consensus in modern Russia is very difficult due to large-scale and increasing levels of prejudice against migrants. According to the data of an all-Russian survey of public opinion, carried out by the Levada Center in 2007, only 12% of respondents said that they have a positive or sympathetic attitude towards immigrants, while 22% said that their attitude to migrants is negative (15%) or very negative (7%), i.e. essentially hostile. In surveys by t he All-Russian Center for Public Opinion Study, 69% of respondents in 2006 and 68% in 2008 said that they view large influx of foreigners to Russia as a rather negative phenomenon. The share of such respondents in Moscow and St. Petersburg in 2008 was 75%[13] .

Long-term monitoring by the Levada Center shows similar results (Table. 5.4).

Table 5.4. *What is your attitude to increasing presence of workers from CIS countries at Russian building sites?*

	2000	2001	2002	2003	2004	2005	2006
Definitely positive	10	8	6	7	6	6	6
Rather positive	17	20	16	15	15	16	14
Neutral	32	39	44	42	39	42	45
Rather negative	23	22	22	20	25	24	21
Definitely negative	15	8	9	12	13	11	12
Cannot say	3	3	3	5	2	1	2

Source: Monitoring by the Levada Center, N=1600

Table 5.5. *What negative aspects do you associate with immigration?*

		%
1.	Immigrants are unhygienic and spread disease	47
2.	Increase of crime levels, threat to security	46
3.	Sale of inferior-quality goods and food	47
4.	Dumping effect on labor remuneration due to consent of immigrants to work for the lowest wage	40
5.	Immigrants charge high prices for goods at markets	39
6.	Immigrants compete for jobs with local population and increase unemployment	36
7.	Immigrants don't respect our culture and norms of behavior	34
8.	Immigrants encourage corruption among the authorities	28
9.	Immigrants are disrespectful towards Russian women	24
10.	Immigrants import a different culture and way of life	18
11.	Immigrants spread prostitution and undermine people's morals	11

Source: ODIHR/OSCE-IOM survey, 2005, N=500

Table 5.6. *Is there something that makes you personally antagonistic towards migrants from CIS countries? If so, what is it?*

	%
The markets are full of them	37
They behave in an uninhibited manner, as if they are the masters, and don't observe our traditions	36
They are involved in crime	28
They take jobs and accept low wages	21
They are hostile toward Russians	21
Nothing makes me antagonistic	27
Cannot say	3

Source: Levada-Center, 2006, April; N=1600

Data of surveys by the International Organization for Migration and the Office for Democratic Institutions and Human Rights (ODIHR) of the OSCE show that 45% of local people in 3 Russian pilot cities are concerned about the number of migrants in their city, see nothing positive in their presence and consider migrants to be superfluous in their city[15]. People tend to focus, first and foremost, on negative aspects of migration, such as inferior quality of products sold and services offered by immigrant employees, issues of hygiene and health care, aggravation of crime levels. Surveys found that 30-40% of local people emphasize negative economic consequences of migration: monopoly prices for goods, competition on the labor market, dumping prices for labor, etc. Up to 1/3 of locals emphasize cultural difference of migrants: disrespect for Russian cultural traditions, propagation of alien culture, etc. (Table 5.5).

According to the OSCE-IOM survey, 60% (!) of respondents in pilot Russian cities are sure that migrants increase the terrorism threat. The survey data, reflecting the opinion of residents of large cities with a tense situation in the sphere of immigration, concur with data of the All-Russian representative survey, carried by the Levada Center (Table 5.6).

Despite such negative attitudes towards migrants, a high share of Russians uses their services (particularly shopping at food markets where CIS citizens often work). Migrants frequently work in housing services, cleaning staircases of apartment-buildings and maintaining the surrounding area; they are also hired to carry out construction and repair works, and services to households

Table 5.7. *Have you personally had experience of dealing with labor migrants, and of using their services? If yes, what services?*

	%
I buy food from them at markets/shops	39.8
I buy goods from them at markets/shops	26.2
Migrants clean our apartment building or the nearby territory	5.3
I hired workers for repair or construction work	4.4
I hired migrants to help in the household: cleaning, baby-sitting, nursing, gardening, etc.	1.1
I rent a flat to migrants	0.8
I used other services offered by migrants	1.3
I never used their services	50.5

Source: Levada Center, All-Russian survey La Strada Ukraine, 2007, N=2011

(Table 5.7). In large cities, as shown by the International Organization for Migration survey, the share of population, using the services of migrants exceeds that in the table above and is as high as 70% or more. However, people often fail to realize that these services are provided by migrants. In large cities attitude to migrants is sometimes worse than in other places. According to the already mentioned survey of the All-Russian Center of Public Opinion Study 2008, as many as 68% of respondents in the all-Russian sampling expressed negative attitudes towards large number of migrants coming to Russia. But in Moscow and St. Petersburg this figure was 75%.

5.7.2. Migrantophobic mythology

Negative attitude of local populations towards migrants is not something new, and is observed to a lesser or greater degree in all countries, which experience immigration. This attitude reflects real problems, which are bound to arise when foreign components have to be integrated into an existing society. But, for various reasons and deliberately or unconsciously, severity of the problems is often grossly exaggerated by society and policy makers, embellished with groundless and constantly replicated myths, which do nothing to further solution of the problems.

Policies on the labor market are an example of this. Although Western research has shown that impact of migrants on levels of unemployment and labor remuneration of local workers is very small and inconsistent, public opinion continues to support the idea – often propagated by trade unions – of serious competition between local workers and migrants for jobs.

Nearly all host countries implement policies to protect local workers from competition with migrants. Russian legislation also contains such norms, giving local workers priority on the labor market. Instruments include quotas, granting of work permits (for legal immigrants) only in case a vacancy cannot be filled by a local worker, maximum permissible shares of foreign workers in certain spheres of economy, and higher levels of income tax for non-residents. These measures are probably a necessary element of migration policy, but they should be balanced and should not force migrant labor into the shadow economy. In particular, very high rates of income tax (30%), charged on wages of foreign workers employed in Russia for more than 183 days, is a heavy burden for employers who use migrant labor, and encourages them to employ migrants on an informal basis. Maximum permissible shares of foreign workers in retail trade, which effectively prohibit employment of migrants on markets (outside shops), has not led to greater employment of local people in this subsector, but has encouraged shadow activity, hiring of "dummies", and "emergency" receipt of temporary stay and residence permits. And instead of reversing this inefficient measure, when its negative results become obvious, the government extended its period of operation through 2008.

Having adopted a liberal regime for labor migration, Russia needs to refine the instruments, designed to ensure priority for local workers on the labor market. A golden mean would stimulate employers to hire local workers without forcing huge numbers of immigrants outside the limits of the legal framework.

Supposed contribution of migrants to the spread of diseases and aggravation of crime are exaggerated problems. According to surveys, almost half of the inhabitants of large cities believe that migrants spread diseases and contribute to crime. These two points are repeatedly cited by various political forces to justify the notion that immigrants represent a threat to society.

Newspaper headlines such as, "Every tenth migrant in Russia suffers from tuberculosis" or "What diseases do migrants carry in Moscow?" are typical of the way in which the issue is presented. According to official data, 1 in every 125 of those migrants who have been examined was found to have tuberculosis, and not 1 in 10 as reported in newspapers. And 165 out of 88,150 migrants who were examined in Moscow in 7 months of 2007 were found to be suffering from AIDS (every 534th migrant).

Statistics suggest that health problems among migrants are serious, but not as threatening as presented by mass media and some politicians. This problem can and must be solved by professional methods without encouraging an upsurge of social anxiety.

The second scare-story, which has been used to create an unattractive image of migrants in collective consciousness, concerns level of crime among foreigners.

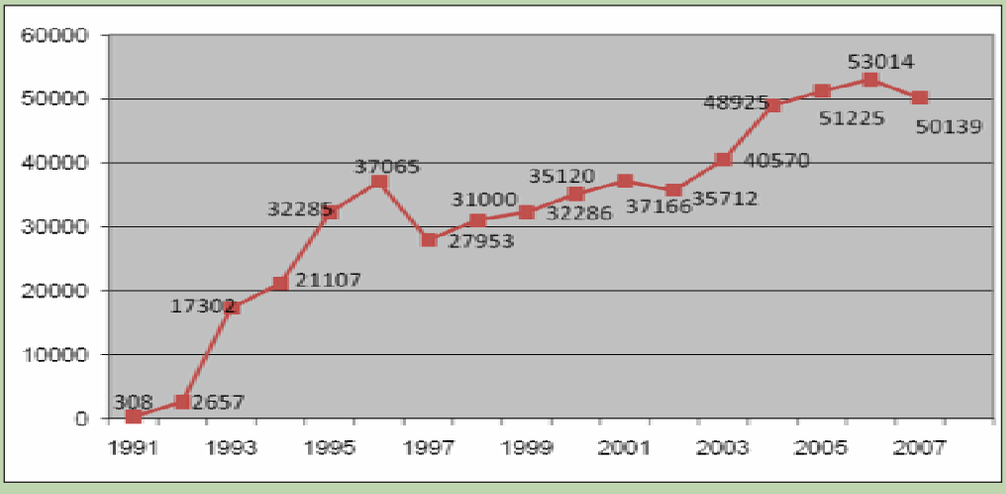
In fact, as reported by the Ministry of Internal Affairs of the Russian Federation, in 2007, crimes committed by foreigners were only 1.4% of total registered crimes in Russia and 2.8% of investigated crimes.

Also, the number of crimes, committed in 2007 by foreign citizens, decreased by 5.4% compared with the previous year.

Absolute decline in the number of crimes committed by foreign citizens in 2007, despite continuing growth in the number of migrants in the Russian Federation, is a strong argument against suggestions

Box 5.2. Are migrants a source of diseases? Official data of the Russian Federation Migration Agency Administration in Moscow for 7 months of 2007:

* 3 During 7 months of 2007 in Moscow 73,660 migrants underwent comprehensive medical checks, and 2722 of them were found to carry dangerous infections.
* Of 88,150 migrants tested for AIDS, 165 were positive (including 7 children).
* Of 78,319 foreigners, tested for tuberculosis, 387 (including 21 children) were positive.
* No cases of leprosy were detected among migrants.
* 2158 of 88,150 migrants who were examined were found to suffer from syphilis.
* 88,111 foreigners were examined for drug abuse, and 12 were judged to be drug addicts.



Source: Russian Ministry of Internal Affairs

Figure 5.9. *Number of crimes committed by foreigners in the Russian Federation in 1991-2007.*

Box 5.3. Crimes against migrants

According to a report by the Director of the Moscow Bureau of Human Rights, Alexander Broda, there were at least 126 attacks in January-May 2008 on grounds of xenophobia, as a results of which 72 people were killed and at least 137 injured. The number of deaths exceeds the total for 2007.

Moscow and Moscow Region rank highest for racist crimes (35 killed, at least 80 injured); followed by St. Petersburg (16 killed, 19 injured), Sverdlovsk Region (3 killed, 4 injured), Ulyanovsk Region (2 killed) and Voronezh (1 killed, 11 injured).

Migrants from the following countries are targeted in racist attacks: Uzbeks (12 killed, 10 injured), Kirgiz (9 killed, 5 injured), Tajiks (6 killed, 23 injured), Azerbaijanis (6 killed, 7 injured) and Russians (5 killed, 28 injured).

According to Human Rights activists, there are up to 70,000 skinheads and members of other radical nationalistic organizations in Russia, who are mostly responsible for attacks on natives of the North Caucasus and Central Asia as well as representatives of other youth sub-cultures and sexual minorities.

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that migrants are disposed towards crime. It is also indirect evidence for the efficiency of a new, more liberal migration policy, which simplifies legalization of migrants and thus reduces probability that immigrants will become involved in crime.

The number of crimes against migrants, as reported by the Ministry of Internal Affairs, increased by 2.4% in 2007 to 15,985 crimes, which is indirect evidence of increasing xenophobia in Russian society. While crimes by migrants are mostly theft, crimes against migrants are usually grievous. The number of murders of foreigners in Moscow and other large cities is constantly increasing.

In is important to note that migrants, even legal migrants, have very limited access to justice and protection of their rights, and try to avoid contact with law-enforcement bodies. So crimes, committed against foreign citizens, are very latent and tend to be recorded less often than crimes against Russian citizens.

The problem of cultural difference between migrants and the native population is also much exaggerated. Of course, language barriers, and different cultural and religious traditions create certain difficulties in communication, work and everyday life. But these difficulties can be overcome and there are many examples in world history and Russian history, when socio-cultural and ethno-religious differences have been no obstacle to development of a multicultural society.

In a certain sense, Russia is better placed than many other host countries in Europe. Today, most labor migrants (67% in 2007) arrive from republics of the former USSR, which have a common past with Russia. So Russia's migratory influx is culturally closer to the native population than is the case in other host countries, even though non-Slavic republics (such as those in Central Asia) are increasing their cultural distance from Russia, as the "Soviet" generation gives way to a new generation, which does not associate itself with the cultural-historic unity of the "Soviet people" .

It remains true in any case that problems arising from cultural distance must be assessed in a timely and accurate fashion, and that policies must be designed, which can attenuate these problems so far as possible.

It is also interesting that migrants themselves usually take a more positive view of their relations with the local population and do not feel the level of xenophobia, which is registered by sociological surveys. These points to exaggerated mythologisation of the xenophobia problem, but it may also indicate a large degree of exclusion, by virtue of which migrants do not perceive how much they are resented.

There is also a direct link between migrants' living standards and attitude of local people towards them. The better the conditions in which the migrants live and work, the less negative the attitude of the local population is likely to be.

Increasingly unfavorable attitudes towards migrants show that real weight of the migration issue and its importance for Russia's future are underestimated at all levels of Russian society. A negative social climate, manifestations of everyday xenophobia, and an ideology of double standards significantly aggravate the situation of migrants and force them into certain behavior patterns. Social exclusion and resulting desire of migrants to separate themselves from the society around them lead to new problems, both for migrants and for the host society. Migrants try to minimize their contacts with official bodies, which generally employ ordinary Russian citizens who are affected by the anti-migrant mood. So a sense of fear, distrust and dislike takes root among migrant communities, with negative psychological impact on individuals and groups, leading to deviant behavior (alcoholism, drug-addiction, criminality, etc.). These tendencies are not characteristic of labor migration as such: migrants come to Russia to work, and that is their priority aim.

Everything, which interferes with this aim, including deviant behavior by the migrants themselves, is provoked by negative factors, such as hostile public opinion and administrative barriers to legalization.

5.8. Migration policy: Protectionism or restrictions?

Change in migration processes has been accompanied by changes to migration policy. In the 1990s, attention was focused on influx of displaced persons, while other types of migration received little attention from government. Free migration across borders acted as an important shock-absorber during the comprehensive crisis which affected former countries of the USSR after the Soviet collapse, but it also entailed rapid growth in numbers of migrants with undefined status. This in turn led to widespread informal employment of migrants and, as a consequence, tax shortfalls, forced labor, fraudulent recruiting and human trafficking, drug trafficking, corrup-

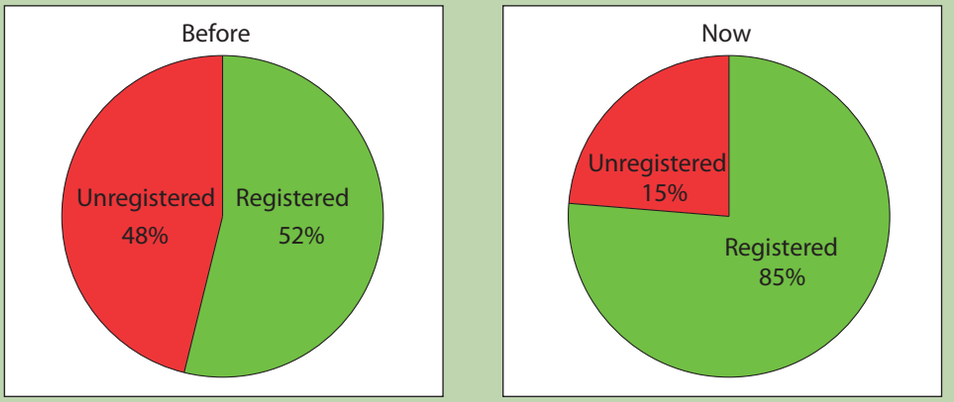
Box 5.4. Main changes to migration legislation

Old procedure	*New procedure*
Registration at place of stay /Migration accounting (all immigrants)	
Requiring permission	**Requiring notification**
On issue of a permit by the police	On notification by hosts No permit is required
At a residential address	At a residential address, enterprise or intermediary agency
Registration at a police station	Notification to the Federal Migration Agency, in person or by post
Complex procedure, requiring: — Written consent of all persons, permanently living at the residential address, who must accompany the migrant to the police station; — Observance of norms for living space per person (determined by local legislation in some regions)	Простая процедура, предполагающая лишь поиск мигрантом принимающей стороны и отправку уведомления
Work permit (visa-free migrants)	
Employment permit is granted to *an employer*	Employment permit (work card) is granted to the migrant personally Employer notifies the migration agency of a foreign worker employment
Long multi-stage procedure	Simple procedure
Quotas	
Only for visa migrants	Separately for visa-free and visa migrants

tion, etc. The result was a swing in the other direction, with strict limitations on migration. Such reaction was encouraged by concerns of the Russian population, which had become used to living in a closed society.

A complex procedure for legal registration of migrants, brought in as part of the new approach, created serious obstacles for legal residence and employment of foreign citizens. These effect of these complications was the opposite of what was intended. They led to greater increase of illegal migration, formation of mafia networks, and corruption among officials dealing with migration. Legal migration sharply declined, contrary to Russia's own interests in the context of demographic crisis. Inadequacy of this migration policy and need to simplify legalization of migrants became increasingly evident.

A decisive step towards liberalization of migration policy was made in 2007. This step is as important for Russia as the law on freedom of arrival and departure, passed in the early 1990s, which finally destroyed the "iron curtain". The new policy, based on liberal principals, is unpar-



Source: Programme of the International Organization for Migration and OSCE for monitoring of new migration legislation in Russia.

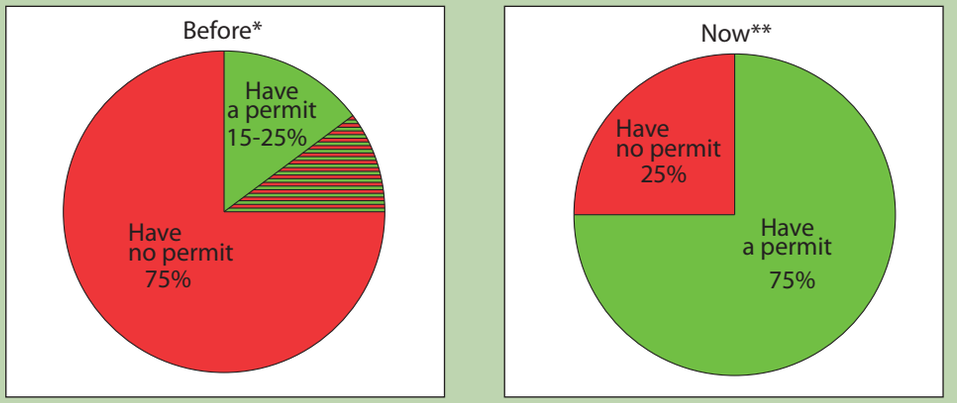
Figure 5.10. *Registered migrants*

alleled in the history of Russia from Tsarist timers to the present.

The changes greatly simplify of rules for registration of foreign citizens at their residence address in Russia and rules governing their employment. So they affect issues which were the key stumbling block for legalization of migrants. The new approach to migration regulation is set out in a new law, "On migration accounting of foreign citizens and persons without citizenship in the Russian Federation", and in a new version of the law, "On legal status of foreign citizens in the Russian Federation", both enacted on January 15, 2007.

For foreigners on a temporary stay in Russia – the case of most migrants – the need to apply for permission to reside at a specific address has been replaced by simple notification of the address, where they are staying. The list of required documents for registration at an address has been shortened (only a passport and migration card stamped at the border crossing are now required) and registration by post is allowed.

The procedure of employment for migrants has also undergone major changes. Previously, a permit for employment of foreign labor had to be granted to an employer. This made migrants dependent on the employer and encouraged illegal employment practices. Now, a work card is granted to the worker himself, so that migrants can seek freely for a job and employers are free to hire foreign citizens with work cards. So dependence of the worker on the employer is eliminated and conditions for free movement of foreign labor on the market are in place, although the freedom is limited by the employment profile of the worker



Source: * Data of the Center for Migration Research;
** IOM and OSCE programmes for monitoring new migration legislation in Russia

Figure 5.11. *Migrants with work permits*

and is only valid in the subject of the Federation (administrative region), which issued the card.

For the moment these new employment provisions only concern CIS labor migrants, who are in Russia on a visa-free basis, as they are viewed as Russia's priority immigration flow (Box 5.4).

The first year's experience of the new legislation was highly positive.

First, fairly reliable data on total numbers of migrants, including labor migrants, were obtained for the first time. A total of 8 million arrivals for temporary stay were registered in 2007 and 2.3 million work cards were issued.

The second and most important result of the new policy was a rise in levels of legitimacy of temporary labor migrants and improved protection of their rights. The situation has changed fundamentally. Previously, unregistered migrants were almost a half (46%) of the total, but this share has now decreased by three times (to 15%). Most migrants (85%) registered their presence and thus became legal (Figure 5.10).

There has also been a radical change as regards rights of migrants to work. In 2007, according to IOM and OSCE monitoring data, three quarters of labor migrants obtained work permits. That compares with only 15-25% of migrants (the figures vary between researchers) who were employed by employers on a legal basis before 2007 (Figure 5.11). The tax base in the immigrant employment sphere has doubled in size.

However, extension of migrant rights on the labor market does not guarantee that migrants will be able to find work in the registered (official) economy. The new procedure for work permit issuance underlines the dual nature of Russian labor markets and the huge potential, which they offer for illegal business. About 40% of migrants with work permits have been employed illegally in order to avoid payment of taxes. So an absolutely legal migrant nevertheless becomes an illegal worker. He may not be aware of this himself if he has signed a contract, which is in fact false.

These facts have been used to justify scathing criticism of the new migration policy and calls for a return to the old procedure, as if patent inadequacy of the old system had never been proved[15].

While experts have been calling for elimination of residual limitations of migrant mobility, actual migration practices have take a step backwards towards tight control over migrant employment. Quotas for foreign labor are being used as a tool for such control, despite the fact that calculation of quotas in conditions of the modern Russian labor market – under-researched, rapidly changing, and with a large shadow component – is very difficult and offers no obvious method. The existing mechanism of quota assignment is very complex and multi-stage. Small enterprises cannot meet its requirements and there is no applicable quota procedure for employment of foreign assistants by the self-employed. In these conditions, efforts to control labor migration slow down economic development and indirectly stimulate illegal employment. A quota of 1.8 million foreign workers in 2008 was exhausted within 6 months (as early as April in several regions). The Ministry of Public Health and Social Development believes that the quota should be doubled. But, until such a decision is taken, employers have to slow down their business development or resort to illegal employment.

The overall danger is that focus of efforts on control and elimination of illegal migration deflects attention from strategic tasks of migration policy. This mistake represents a serious threat for Russia's future

Although the country has now moved in the direction of a proper immigration policy, progress to date has been largely declarative. Russia has reformed the system for introduction of migrants into the legal framework, but it still lacks an overall migration policy: unlike all developed countries, Russia has not calculated how many immigrants it will need (albeit only in the coming decade), and has no programme of action to ensure the necessary immigration flows and proper hosting of these flows.

Russia has declared that it will use a selective policy based on professional qualification of migrants, but nothing has been done to create a system for selection and for assessment of the potential of various donor countries. Indeed, there are many grounds to believe that the required number of qualified migrants will not be available, since Russia must compete for highly qualified migrants with developed European countries, which have much more attractive economic conditions. So the popular question: "Which migrants does Russia need?" should be supplemented by another, no less pertinent question: "Which migrants need Russia?" Lack of migrant supply on the international labor market will surely force Russia to make additional investments in selection and professional (re-) education of migrants.

There is another, equally important question: does Russia want temporary migrants or migrants

who move to the country permanently, and what should be the proportion between the two groups? Russia has urgent need both for replenishment of labor resources and for permanent population, so a naturalization corridor for migrants, who stay in Russian for a long period of time, and for foreign students, seems rational. Present legislation emphasizes labor migration for periods up to one year. Longer programmes, envisaging receipt of long-term work permits and residence permits are difficult to organize.

Alternative ways of reducing the need for foreign workers (for example, by moving production to countries with a cheap labor force) are not being considered at all.

Although many key issues of migration policy are still unresolved, it is important to pursue the path of a protectionist immigration policy and to prevent the retrograde movement, which advocates of previous approaches are calling for.

There is an important political consequence of a liberal migration policy, namely that it creates the prerequisites for strengthening of Russia's position in CIS countries, creating the basis for qualitatively different and more constructive relationships.

* * * * *

Migration is undoubtedly one of the most important factors for Russia's future development. Population numbers and structure, rates of economic development, living standards, regional development proportions, size of the country and its integrity all depend on success in attracting of required quantity of immigrants. All these factors make immigration an objective necessity. But immigration – like a Trojan horse – is also fraught with serious risks, which include possible negative economic effects and a threat of social and cultural destabilization. Migration policy must therefore include protectionist and risk-prevention aspects.

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* This and further chapters use the results of the research carried out by The Center for Migration Studies (Moscow) under the financial support of John D. and Catherine T. MacArthur Foundation .

[1] Demographic policy of Russia: From reflection to action. Moscow, 2008, p. 51.

[2] E.Krasinets, E. Kubishin, E. Tyuryukanova, Illegal migration in Russia, Moscow, Academia, 2000, p. 82; V. Mukomel, Russian migration policy. Post-Soviet context. Moscow, Institute of Sociology of the Russian Academy of Science, 2005, p. 194-198.

[3] Except Georgia and Turkmenistan.

[4] Migrants from Belarus are not included in statistics, since the Russia-Belarus Union gives them the same rights as Russian citizens and they are not required to obtain work permits.

[5] For evaluations as of 2003-2005 see. S. Olimova, I. Bosk, Labor migration from Tajikistan. International Organization for Migration, Dushanbe, 2003, p. 21; Labor migration from CIS countries. Edited by Z.A. Zajonchkovskaya. Moscow, 2003, p. 147-148; Migration and labor market in the Central Asia countries. Materials of regional seminar. Tashkent, October 11-12, 2001. Edited by L.P. Maksakova. Independent research council for migration of CIS countries and Baltic States, Moscow, Tashkent, 2002, p. 61; Population of Russia 2002. Tenth annual demographic report. Editor A.G.Vishnevskiy. Institute of National Economy Prognosis of the Russian Academy of Science. The Center of Demography and Human Ecology. Moscow, 2004, p. 169

[6] Here and later in this section we present results of surveys, carried out by the International Organization for Migration in 2006, including a sampling survey of 115 migrants from CIS countries in three pilot regions of the Russian Federation (City of Moscow and Moscow Region, Republic of Karelia, Astrakhan Region). See: Prevention of slavery and human trafficking in the Russian Federation. Scientific report of the European Union project, carried out by the International Organization for Migration in the Russian Federation, "Prevention of human trafficking in the Russian Federation", Moscow, 2008 (hereafter references to IOM surveys, 2006).

[7] The Russian economic miracle: Lets do it ourselves. Forecast of economic development of Russia until 2020. The Center of macro-economic analysis and short-term forecasting. Business literature. Moscow, 2007. page 155

[8] Haisken-DeNew and Zimmenman, "Wage and mobility effects of trade and migration", CEPR Discussion Paper 1318, London 1995; Herbert Bruker, The Employment Impact of Immigration: a Survey of European Studies, 2002.

[9] Rodrik, D. Feasible Globalizations, Kennedy School of Government, Working Paper Series RWPO 2029, July. 2002 цитата по: World Migration: Costs and Benefits of International Migration. IOM. 2005, page 164.

[10] See, for example, an interview with the Chairman of the Commission for Issues of Tolerance and Freedom of Conscience of the Public Chamber, and Director of the Institute of Ethnology and Anthropology, Valery Tishkov (http://www.oprf.ru/rus/members/appearances/article-512.html).

[11] Source: Focus groups with employers, organized by the Levada-Center in Moscow in 2007 for La Strada Ukraine Project.

[12] The unobserved economy: Attempts at qualitative measurement. Edited by A.E. Surinova. Moscow: Finstatinform, 2003, p. 23, 44. Authors estimate Russia's shadow sector at 22.4% GDP. More radical estimates (for example, V.K. Senchagov, Economic safety, geopolitics, globalization, self-protection and development. Moscow. Finstatinform, 2002, p. 119, suggest figures as high as 40-50%.

[13] The unobserved economy: Attempts at qualitative measurement. Edited by A.E. Surinova. Moscow: Finstatinform, 2003, p. 23, 44. Authors estimate Russia's shadow sector at 22.4% GDP. More radical estimates (for example, V.K. Senchagov, Economic safety, geopolitics, globalization, self-protection and development. Moscow. Finstatinform, 2002, p. 119, suggest figures as high as 40-50%.

[14] The survey was carried out in 2005 in 3 pilot cities of the Russian Federation: Rostov, Chelyabinsk, and Saratov. The sample volume was 500 persons.

[15] For example, Moscow Mayor Yuri Luzhkov is calling for restoration of the old system when permits for employment were granted to employers only and migrants could only be registered at a residential address. Yu. Luzhkov. "Moscow is not an open house"/Rossiyskaya Gazeta. Federal issue, September 16 2007.

Chapter 6

DEMOGRAPHIC CHALLENGES AND ECONOMIC GROWTH

6.1. Economic growth and human capital

The rapid economic growth of the last 10 years has provided the first opportunity to articulate a long-term development trajectory for Russia – an objective which looked unrealistic in previous conditions. The Concept for Socio-Economic Development of the Russian Federation up to 2020 envisages Russia attaining levels of prosperity similar to those of developed countries (per capita GDP equal to USD 30,000). We estimate that attainment of this goal is possible, assuming average annual economic growth of about 7% throughout the period.

It is perfectly feasible for a country with PPP GDP of USD 10-15,000 per capita to maintain sustainable annual growth at a rate of 7%. Since 1950 as many as 13 countries have succeeded in maintaining such rates of growth for no less than 25 years, including Brazil, Hong Kong, Malaysia, Taiwan, Thailand, Singapore, South Korea and Japan[1]. However, never in history has a country been able to achieve growth rates of 7% annually for 15 successive years while suffering annual shrinkage of the working-age population by 1%, which is expected to be the case for Russia, according to available forecast estimates (see Chapter 1, Section 1.2.2).

The World Bank Report for 2006 contains estimates of contribution by various assets to growth of public wealth in a large number of the world's countries[2]. One of the principal conclusions from the Report is that higher levels of economic development are correlated with lower shares of natural resources in total public wealth. In poor countries, the share of natural resources is, on average, as high as 26%; in countries with medium levels of development it is about 13%, and it is about 2% in developed countries (Figure 6.1). Lower share of natural resources is always accompanied by growing share of intangible assets, consisting mainly of various human capital components.

Viewed in this context, Russia's situation looks very unfavorable. The share of natural resources & raw materials in its wealth is far in excess not only of developed countries, but of most of the poorest countries of the world. The share of intangible assets in Russia's

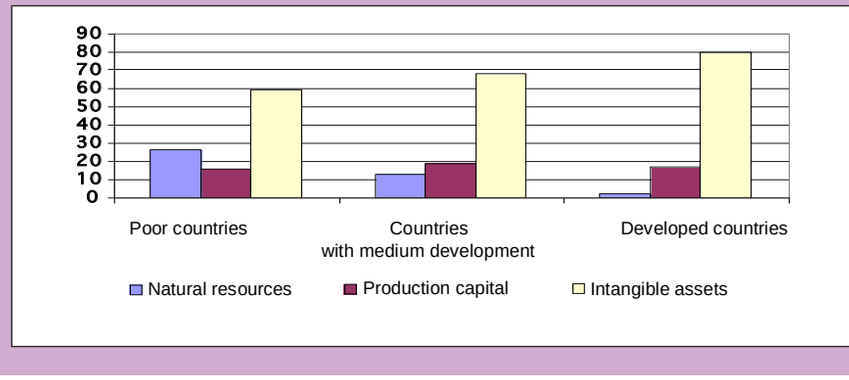
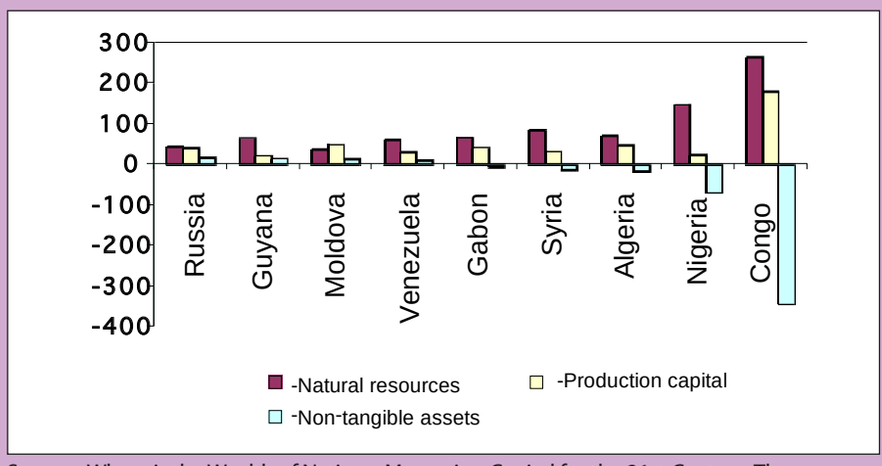


Figure 6.1. *Sources of public wealth depending on economic development levels*

public wealth is about four times lower than the average for the world's poor countries, not to mention developed countries. Russia's closest peers, measured by contribution of intangible assets to public wealth are Guyana, Moldavia, Venezuela, Gabon, Syria, Algeria, Nigeria and Congo (see Figure 6.2).

Russia is in the top 15% most developed countries of the world measured by the educational component of the UNDP Human Development Index[3], but it is among the 15% least successful countries in contribution of human capital to national wealth.



Source: Where is the Wealth of Nations: Measuring Capital for the 21st Century. The World Bank. Washington DC, 2006

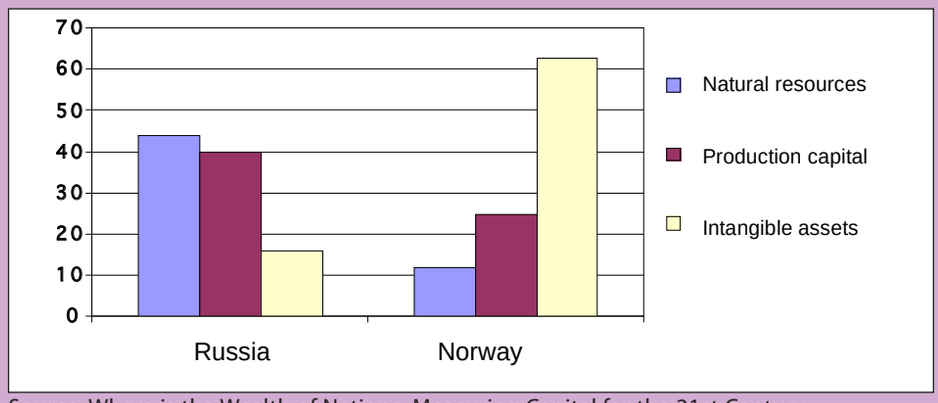
Figure 6.2. *Balance between sources of public wealth in countries where contribution of intangible assets to economic development is similar to Russia*

It would be natural to suppose that low share of intangible assets is due to the large share of resource rent in the Russian economy. However, there are developed countries, whose economies are also reliant on large-scale production of raw materials. In Norway, the contribution of natural resources to national wealth is 12%, which is 6 times more than the average for developed countries. Nevertheless, the contribution of intangible assets to Norway's national wealth is 4 times higher than in the Russian Federation (see Figure 6.3).

All else being equal, increase by 2020 of the contribution from human capital to creation of wealth in Russia, even to the level of countries with medium levels of development, will add about 3 percentage points of economic growth annually. This is equal to the difference between growth rates in innovative (best) and inertial (worst) scenarios.

However, improvement of the contribution from human capital to public wealth in Russia is largely complicated by adverse demographic changes and resulting difficulties on the labor market. The vector and rate of macro-economic trends are always largely dependent on the situation on the labor market, and the labor market, in turn, mediates impact of macro-economic development on public wealth and development of most social processes.

Shrinkage of the population of working age causes reduction of supply and structural distortions on the labor market, and this eventually becomes a major negative factor, hindering increase in the contribution from human capital to public wealth and making optimistic scenario for economic growth harder to attain.



Source: Where is the Wealth of Nations: Measuring Capital for the 21st Century. The World Bank. Washington DC, 2006.

Figure 6.3. *Sources of wealth in Russia and Norway*

6.2. Demographic challenges and the labor market

According to demographic forecasts, Russia will face a large decline in its able-bodied population aged 15-72 years in the near future. The decline will be particularly noticeable in the next 5-7 years. That will be followed by further reduction at slower rates, but there will be no return to previous able-bodied population levels.

Decline in numbers of people of able-bodied age is complicated by mounting structural disproportions on the labor market. The nature of these disproportions can be shown using the Southern Federal District as an example (see Box 6.1).

Structural disproportions are also associated with ageing of the able-bodied part of the population (aged 15-72 years). This will be manifest, initially, in dwindling of population under 30 years old and concurrent growth in those of 30-39 y.o. and 60-72 y.o.

Box 6.1. Structural disproportions on the labor market of the Southern Federal District, by professions and skills

A study carried for purposes of economic strategy design in the Southern Federal District (SFD) revealed that disproportionate vocational training distribution will create another impediment to development of the District, alongside general supply shortages on the labor market. Such disproportions have already begun to have an effect, and the situation will become more acute in future if the present skill distribution remains the same. Current obstacles to an efficient allocation of labor in most SFD regions are shortage of skilled workforce, as well as loss of highly-skilled workers, engineers and technicians at many industrial facilities, particularly those in the processing sector, during the years of stagnation in the economy. Restoration of lost human resources requires considerable efforts and time.

Regions of the SFD, like the rest of Russia, are suffering the consequences of serious contradictions between actual needs of the labor market and the current system of professional training of skilled workers and specialists. The current distribution of various specialist groups who are completing their vocational education does not match future needs of the economy. If the current supply structure of the education system remains the same in future, there will be a mounting deficit of human resources with vocational education (skilled workers) and an excess of unskilled personnel and specialists with higher education (Figure 6.A).

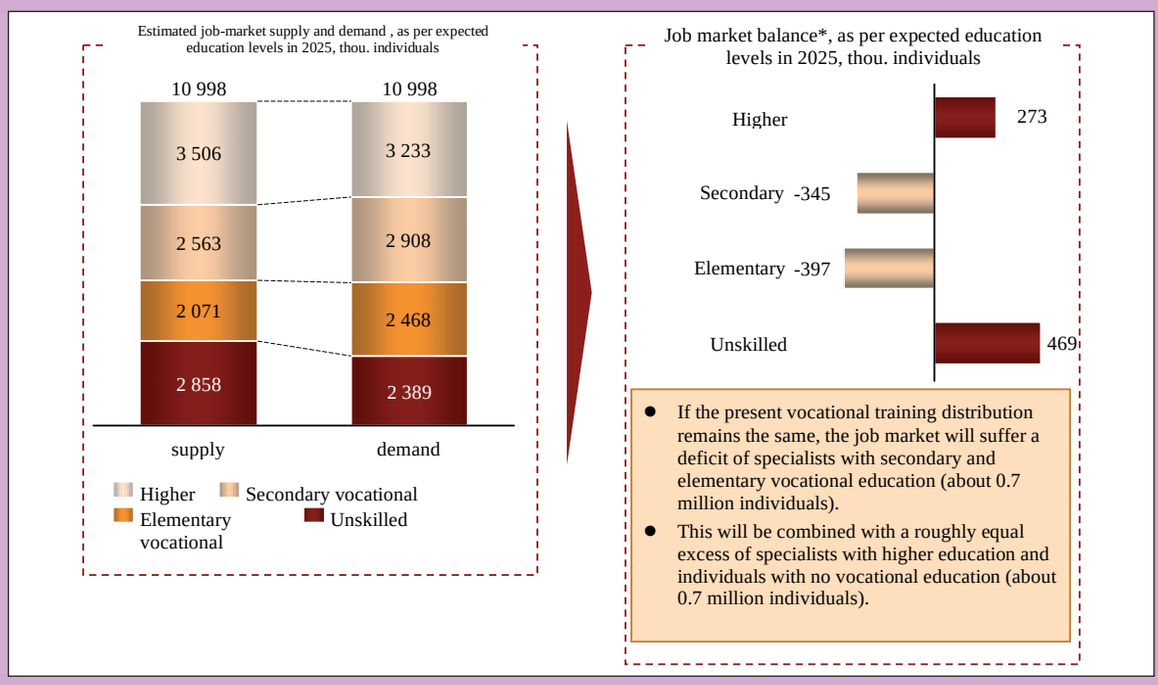
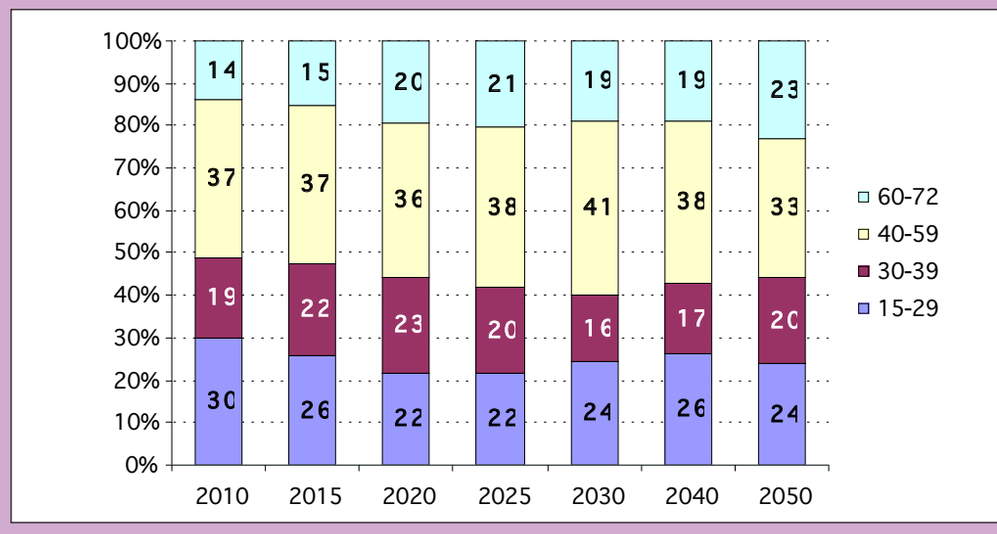


Figure 6.A. *Structural disproportions on the labor market in the SFD, as per education levels*

Source: Росстат; Минобразования; US Census; http://www.euklems.net/; аналитика ООО «Strategy Partners»;
*разница между спросом и предложением

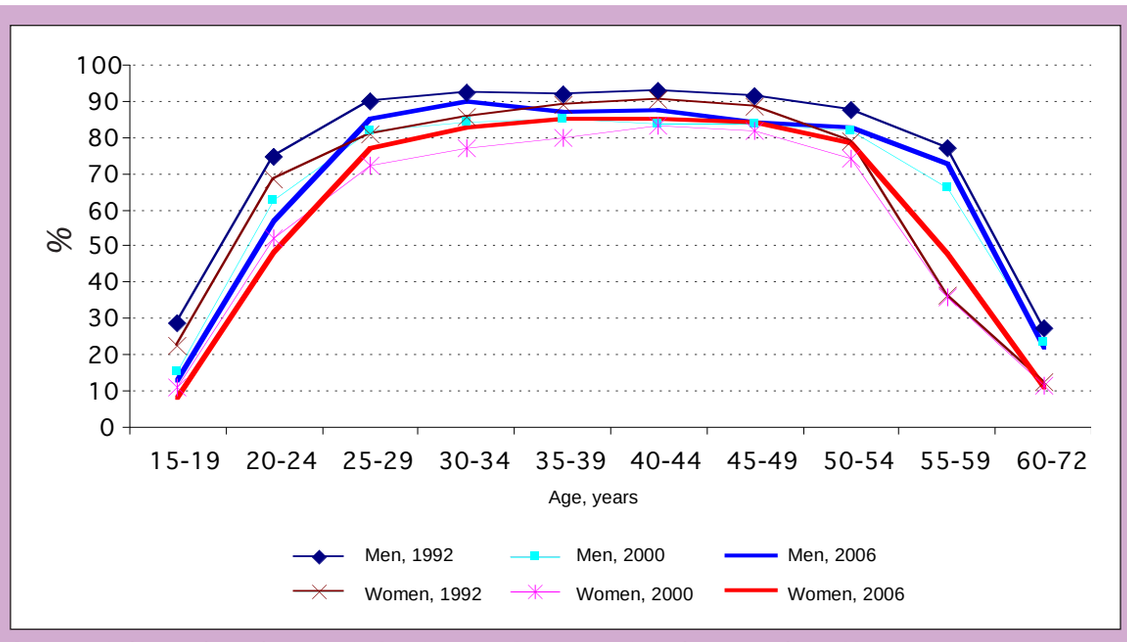
(Figure 6.4). After 2020, there will be growth in the number of people aged 40-72. Since highest employment levels are typical for 25-54 y.o. (especially 30-49 y.o.) (Figure 6.5), it is clear that, initially, and even without any efforts to improve employment rates, the number of people in employment will decrease more slowly than total population in able-bodied age groups. But what has greatest importance for the current state of the labor market and its future prospects is reduction in numbers of people aged 30-49, since they represent the largest and most productive part of the labor force, armed with experience, working skills and superior levels of qualification.

Ageing of the able-bodied population will also entail a growing share of senior-age group employees with outdated professional competences and skills, creating the necessity for an efficient system of mass continuous education, which is regrettably rudimentary in Russia at present (for more details, see Chapter 8).



Source: Данные среднего варианта долгосрочного демографического прогноза ИДЕМ ГУ-ВШЭ

Figure 6.4. *Forecasted structure of able-bodied population for 2010-2050, start of year, %*



Sources: Labor and employment in Russia. 2007. Rosstat statistical compendium. Moscow, 2007, p. 64;
Economic activity of Russian population. 2006. Rosstat statistical compendium. Moscow, 2006, p. 47.

Figure 6.5. *Employment rates for men and women by age groups, % of total population of respective age & gender groups*

There are several reasons why shrinkage and ageing of the able-bodied population is likely to cause a slow-down of per capita GDP growth:

1. Assuming no change in labor productivity growth and levels of economic activity, shrinkage of the able-bodied population will entail lower total GDP growth rates and, since the able-bodied share of the overall population will decline, it will also entail lower rates of GDP growth per capita. The latter could dwindle by about 0.8 percentage points per year due to this factor, even disregarding probable increase of birth rates in the next few years, which will further reduce the able-bodied share of total population until 2025-2030. All other things being equal, this is equivalent to reduction of per capita GDP by 10% by 2020 (representing USD 3000 in 2007 prices) compared with what would be achieved if the able-bodied share remained stable. If, on the other hand, the optimistic demographic forecast by the Institute of Demography at the State University – Higher School of Economics is fulfilled, improved birth rates and accelerated longevity growth will cause average annual per-capita GDP rates to decline by 1 percentage point. If so, absolute per capita GDP by 2020 will be 13% or nearly USD 4000 lower than it would be if the able-bodied share of population remained stable.

2. Decline in the able-bodied share of the population also entails large growth of social spending as a percentage of GDP due to the growing demographic burden per working individual. This problem will be particularly acute if the optimistic demographic forecast comes true (see Chapter 7 for more details). Growing demographic pressure will intensify tax pressure and become a destabilizing factor for public finances, thus tending to slow down rates of economic growth.

3. Insufficient input of new labor is an obstacle to investment flows for creation of new production capacity and for technological innovation. There are at least three reasons for this:

3.1. Lack of new workers makes creation of new jobs dependent on liquidation of existing jobs; if such liquidation does not happen for any reason, creation of the new jobs is impeded;

3.2. New skills have to be imparted through re-training of seasoned human resources with outdated skills instead of being taught to younger generation of employees, who have obtained up-to-date education; such re-training does not always produce the desired outcomes;

3.3. As the economy approaches the global productivity frontier, innovations are increasingly important as drivers of per capita GDP growth rates. Theoretical findings obtained using a number of endogenous economic growth models show that intensity of innovations is closely related to growth of economically active population and improvement of its education levels[4]. In that context, reduction of the Russian able-bodied population, with a fairly high starting level of education, could slow down growth of innovative activity and overall economic growth rates.

4. The growing share of senior-aged population will tend to reduce savings, since net contribution of older people to total growth of household savings is usually negative. Typically, pensioners are spenders of previously accrued savings rather than creators of new savings[5]. This will narrow domestic financial base for investments.

6.3. How to reduce tension on the labor market

There is little doubt that during the next 10-15 demographic trends will make a predominantly negative impact on the Russian labor market. Therefore it will be important to mobilize all the existing reserves, which can at least partially alleviate shortages and tensions due to reduction and ageing of the able-bodied population.

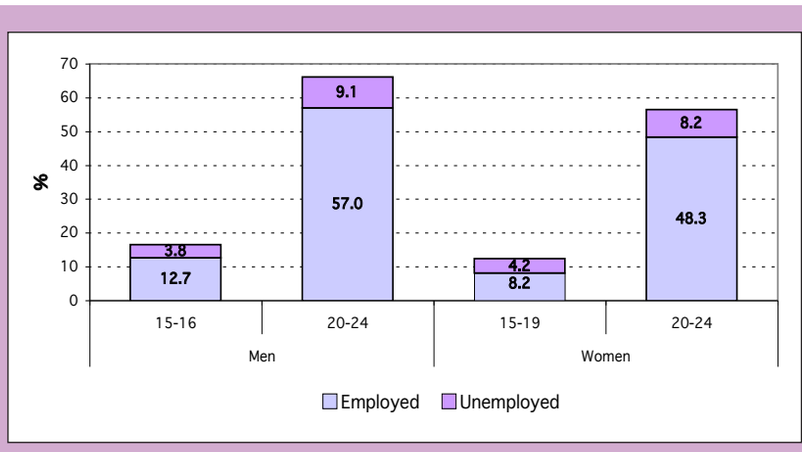
The main reserves available for this purpose are:

- Health improvement and mortality reduction
- Raising levels of economic activity among young and middle age groups
- Raising employment rates among pensioners
- Raising employment rates among the disabled
- Extension of normal working time
- Inter-sectoral relocation of labor and growth of labor productivity
- Interregional labor mobility
- International labor migration

6.3.1. Health improvement and mortality reduction

Improvement of health and reduction of mortality can boost supply on the labor market in three ways.

First, by extending life expectancy of working age groups. If working age limits are taken to be from 20 y.o. to 60 y.o., then, ideally, an individual has potential working life of 40 man-years when he crosses the first threshold. However, not all 20 y.o. individuals are lucky enough to survive to the upper age limit, so that a part of labor resources is lost. Based on mortality levels in 2000, Sweden



Source: Labor and employment in Russia. 2007. Rosstat statistical compendium. M., 2007, p. 37, 64.

Figure 6.6. *Employment and unemployment among young people, November 2006, % of total population of respective age & gender groups*

uses 97.4% of the labor potential of its people aged 20, France uses 96.3% and the USA 95.3%, but the Russian rate is only 86.8%. If Russia could reduce mortality to French levels, potential working life of every 1000 Russians at the start of their career would grow from 34,730 to 38,520 man-years, or by 11%. In other words, 11% decline of able-bodied population would be counter-balanced by reduced mortality.

The second way is by extension of the share of their lives, during which people are in good health. Far from everybody, who lives to the upper able-bodied age limit, actually retains his/her ability to work. As estimated by WHO, usual span of life in good-health was 9.4% lower for Russian men and 10.7% lower for women than total expected life span. This is a further limiting factor on supply to the labor market.

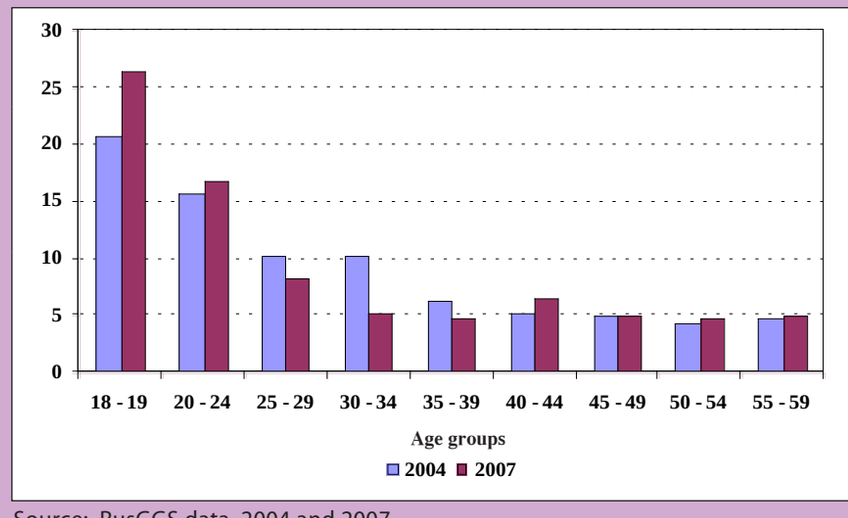
Finally, better health and mortality rates raise the upper able-bodied age limit. Present-day Russian mortality levels make such extension impossible, since too many people would have to work until their dying day. In most developed countries, the upper able-bodied age limit is 65 years and a 65 y.o. man usually lives longer after retirement than a Russian man of 60 years. For instance, the expected life span for a 60 y.o. man in Russia was 13.2 years, compared with 15.7 years for a 65 y.o. man in the USA, 16.7 years in France and 17.4 years in Japan. If reduction of mortality in Russia extends expected life span to levels typical for the majority of developed countries, then raising of retirement age will become feasible.

6.3.2. Increasing levels of economic activity in young and middle age groups

One of the principal reserves for boosting supply on the labor market is expansion of economic activity in various age groups of the working-age population.

In November 2006, as reported by the Rosstat Population Employment Study (PES), the economically inactive population included 83.5% of men and 87.6% of women aged 15-19 years, as well as 33.9% of men and 43.5% of women aged 20-24 years. So only 12.7% of men and 8.2% of women aged 15-19 years and 57.0% and 48.3% of men and women, respectively, aged 20-24 years, were in employment (Figure 6.6).

As reported in the study, "Parents and children, men and women in family and society" (it's a Russian title of Generations and Gender Survey – RusGGS further)[6], the absolute majority of inactive men aged



Source: RusGGS data, 2004 and 2007

Figure 6.7. *Share of informal employment among non-pensioners, by age groups, in 2004 and 2007, % of total employment in each age group*

18-24 years are students (94% of inactive males aged 18-19 and 84% of those aged 20-24). Among economically inactive women, students only predominate at ages 18-19, when 87% of inactive females are students of higher- and other education facilities. At ages of 20-24 years, the share of students among economically inactive women dwindles to 46%, while 27% and 24%, respectively, are housewives and women on leave from work due to pregnancy and childcare. Among economically inactive women aged 25-29, 47% are on various leave connected with childbirth or childcare, while 45% say that they are housewives.

Absence from the labor market among young age groups is often a sign of barriers to market entry. Firstly, analysis of statistics shows that, although average unemployment rates for economically active age groups have been on the decline in recent years, rates among young people have only fluctuated at roughly the same level. Secondly, it is known that informal employment rates are much higher among young age groups. The RusGGS findings show that, in 2004-2007, the share of people employed under verbal agreements grew in the 18-19 y.o. age group and failed to decline among 20-24 y.o. employees (Figure 6.7). If shadow employment is taken to include both employment based on verbal agreements and jobs with actual salary rates different from those payable under the relevant contract[7], more than one in three employees aged 18-24 (34%) and more than one in four (28%) aged 25-29 are in shadow employment.

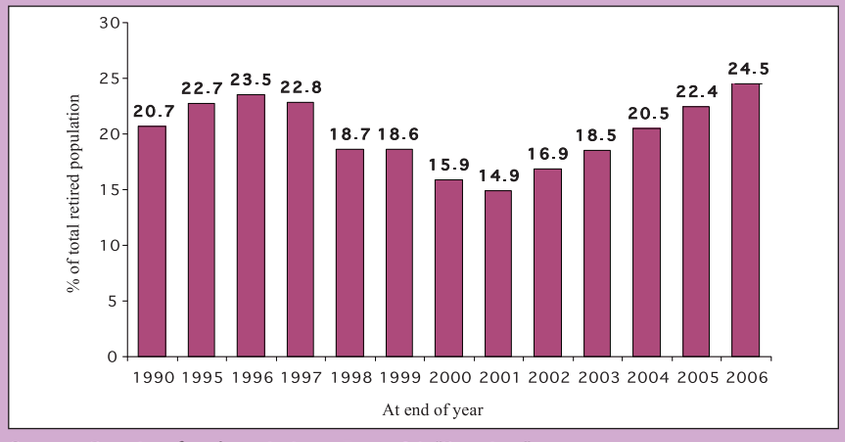
As estimated by the World Bank, in the long term the best way of minimizing decline of the labor force in Russia is through higher employment rates for individuals aged 40-59 years[8]. Findings suggest that improved employment rates for senior age groups (60 years and older) also offer much potential.

But while more intensive employment of people aged 40 and over can lead to the greatest quantitative growth of employment in the next few years, it is obviously not the way to solve the problem of labor force ageing. Indeed, employment rates in these age groups (particularly those aged 40-59) have been improving over recent years without any special efforts, while share of young people aged 15-24 years in the overall labor force (particularly the formal employment) has continued to decline (Figure 6.2). In 2000-2006, the share of individuals aged 20-24 in the overall population of able-bodied age (15-72 years) grew, but share of these individuals in total employment decreased. Meanwhile, as the overall population ages, it becomes increasingly important to widen the distance between the beginning and the end of working life. Extension of the period, during which an average individual stays in the labor market, can be achieved by encouraging later retirement and removing obstacles to entry or return to the labor market in young age groups.

6.3.3. Increasing employment among pensioners

Greater employment rates for pensioners are one way of increasing supply on the labor market. But how great is the potential?

At the start of 2007, Russia had more than 38 million pensioners, including 29.6 million old-age pensioners. Some of them have stayed in employment, and official data show that pensioners' employment rates have been growing since 2002. At present up to 9.4 million of them, or about every fourth pensioner, are working (Figure 6.8). This is primarily due to legislative abolition since 2002 of pensioners' employment restrictions, but also to economic growth of the 2000s, which has caused an increasing shortage of manpower resources, boosting demand for senior-age employees. As a result, pensioners' employment rates grew by nearly 10 p.p. or 1.6 times over 6 years. At the beginning of 2007 the number of formally employed pensioners was the highest since 1990. Added to non-registered, random employment, which can be accounted using sample surveys data, the estimated share of employed pensioners is



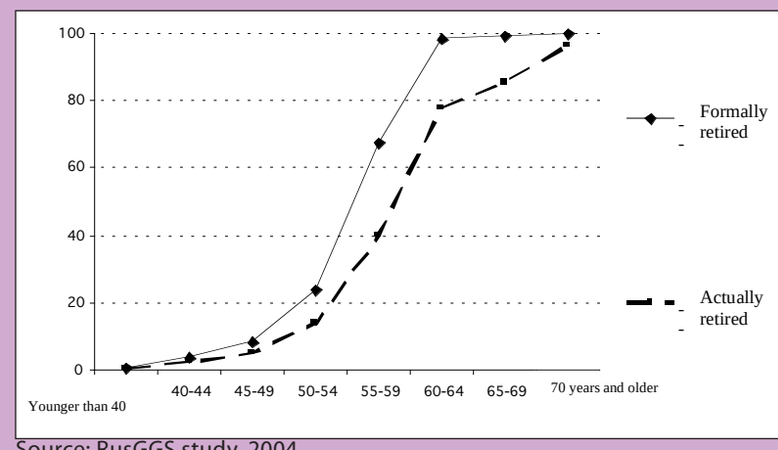
Source: Pension fund statistics – Form 94, "Pension"

Figure 6.8. *Share of working pensioners in all pensioners, end of year, %*

even higher at 22% in 2004 and 26% in 2007.[9]

The share of working pensioners in the total employed population aged 18 years and above grew from 13% in 2004 to 17% in 2007.[10] So roughly every sixth employee was a pensioner.

Not all pensioners are above the working-age limit officially applicable in Russia (55 y.o. for women and 60 y.o. for men). This refers particularly to people who are entitled to pensions at ages below normal retirement age. The share of these people who continue to work is very high (69.5%) and has grown further, particularly in recent years. But many people who receive work-related old-age pensions also work on into their "retirement" (28.2% in late 2006). So a considerable number of pensioners, including the majority of those who are in working-age groups, do not equate receipt of a pension with loss of ability to work or of labor-earned income.



Source: RusGGS study, 2004

Figure 6.9. *Share of respondents and their partners, who receive pensions and who have ceased to work, % of respective age groups*

Clearly, one of the reasons for continuing to work after retirement is that pensions are too small. Formally, the present-day pension system is, on the whole, successful in preventing poverty (especially in its extreme forms) in most traditional pensioners' groups, i.e. those, who receive old-age labor pensions. Analysis of pensioners' poverty, based on the NOBUS data, showed that scale and depth of poverty among pensioners of retirement age, including those living alone[11], is less than in households without pensioners, or where pensioners are of working age or below working age, i.e. orphaned children, disabled children or young disabled people. Nevertheless, differences in pension benefits remain slight[12] and the average pension is close to the minimum subsistence level for a pensioner, so most pensioners' households, though not poor by official standards, have incomes not much above the poverty threshold.

Furthermore, average salaries are growing more rapidly than average pensions, so decline in income, which people face when they retire, is increasingly large.

Increasing numbers of pensioners therefore prefer to postpone the time, when their income will be limited to social security (pension) payments, and employment is a major factor, by which they can supplement their income levels.

Increased access of pensioners to earnings compensates inadequacy of the pension system for preventing poverty risks among the elderly, but also partly compensates failures of other segments of the social security system. Study of inter-generation financial transfers shows that elderly parents are the most common source of money transfers to children and grandchildren.[13]

However, studies of the connection between pensioners' employment rates and their income levels, using RusGGS and RLMS, found that, on the whole, pensioners' employment rates are not dependent on levels of pensions and on levels of income in the pensioners' households.[14] In particular, it was found that, contrary to expectations, pensioners who are far from poor are the most disposed to work.

The economic motivation for staying in employment is clear, but employment among pensioners declines with age, for obvious reasons.

Statistical data and findings of various studies show that employment among pensioners is highest in working-age groups (40-54 years – some jobs give entitlement to retirement and receipt of a pension at these early ages). After normal retirement age is reached, economic activity usually declines significantly; however, the most dramatic cut in pensioners' employment rates is usually at the age of 60 for women and 65 for men. This cut-off is particularly noticeable among women because a large share of women postpones their actual exit from labor market until later than the age when they start to receive a pension (55): their actual retirement age is around the generally normal pension age for men, which is 60 years.

As result, the gap between total number of pensioners and total number of those who have actually left the labor market is greatest in the last five years after retirement (Figure 6.9). This shows that the majority of those entitled to pensions at a relatively early age and a large share of individuals who collect pen-

sion on standard terms are still capable of working at the time when they become official pensioners.

According to findings of the second wave of RusGGS survey (2007), more than 60% of pensioners (about half of men and three quarters of women), remain employed for the first year after drawing pensions. Male employment levels remain almost unchanged in the second year, when every fifth female employee quits the labor market. The share of those who have actually retired increases over time, with women quitting employment more rapidly than men. Nevertheless, women retain higher levels of employment than men throughout the first 5 years after drawing pensions (Figure 6.10). The main cut-off point is 10 years after becoming a pensioner, following which there is a dramatic decline in the share of working pensioners. Most of them do not resume employment after this time.

The employment behavior model applicable to Russian pensioners can be described as follows: they work for so as long as their physical capabilities and health allow, often in the same job, which they did before reaching pensionable age, and when they do quit the labor market, it is without return. Statistics suggest that average time needed to find a job increases with age, so tendency of pensioners to stay in their original job may be partially due to barriers they encounter when seeking new jobs. Such barriers may reflect both subjective mental attitudes – employers expect relatively lower productivity from senior-aged employees, – and objectively lower quality of their human capital.

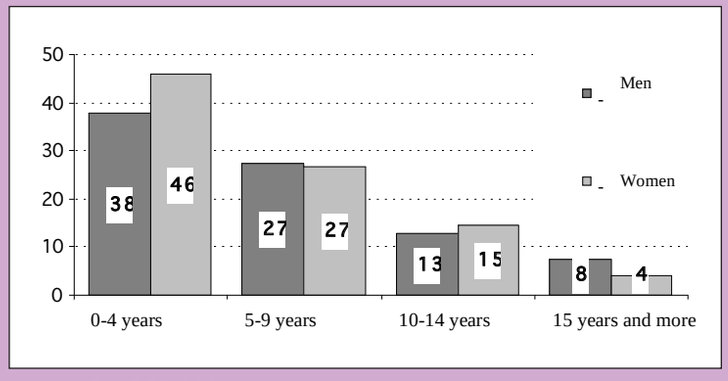
One of the principal barriers is health of pensioners. This is a key factor limiting employment rates among senior-age groups: any sharp deterioration of health not only provokes earlier collecting a pension, but also exit from the labor market. This factor largely restricts possibilities of increasing of pensioners' employment.

However, impact of health problems (except their severest manifestations) on ability to work and on productivity differs between groups of pensioners. More educated pensioners tend to have better health, and they are more likely to be employed even when their health is poor or very poor. So improvement of education levels among pensioners, which has been a development of recent years, makes a contribution to improvement of their employment rates.

Per-sector pensioner employment distribution is clearly biased in favor of intellectual occupations. Education, science and culture rank highest. According to the RusGGS, the share of pensioners employed in education was 18-19% of all working pensioners in 2004-2007. About 4-5% of employed pensioners are in the science and culture sectors. Pensioners are also prominent in health care and social services (about 14-16% of all working pensioners). Schemes allowing early pension entitlement in education (among school teachers) and health care professionals largely explain the high concentration of working pensioners in these sectors. Addition of pensioners working in government administration and social services leads to the result that about 40% of all employed pensioners are in jobs, which require high levels of education. About 18-19% of employed pensioners are in mechanical engineering and heavy industry. Pensioner employment rates in all other sectors are much lower.

There are good reasons why pensioners stay on in their jobs in the education, science and health sectors. The risk of diminishing professional capacity is less in these sectors than in transport, construction, or industry, and health requirements are lower. On the contrary, levels of knowledge, experience and professional competence usually grow with age. Nevertheless, the present situation looks contradictory in the context of labor market policy. Keeping pensioners in these public sectors is a good way of tackling shortage of manpower, but recruiting of young people to the low-paid public sector jobs remains a problem, and reforms are still pending in education, science and health.

Overall, average education levels in new cohorts approaching retirement age are rising, and increasing employment among senior-age groups is possible, provided there is a restructuring of the labor market in favor of services, information technology and other intellectual occupations.



Source: RusGGS, 2004

Figure 6.10. *Changes in the share of employed pensioners, by duration of formal retirement*

Table 6.2. *Dependence between the share of employed pensioners and their pension entitlement while continuing to work, by income groups*

Potential wage	The share of pension payable to an employed pensioner, assuming various pensioner employment rates, %				
	90	80	70	60	50
The lower 50% (the lower 5 deciles)	71	47	29	17	9
51-89% (6th – 9th deciles)	51	21	8	3	1
The upper 10%	17	5	0	0	0

Source: Kovrova I. "Shaping a Pension System: Distributive and Incentive Effects of the Russian Pension Reforms", Ph.D. dissertation, University of Turin, 2007

It seems that shortage of jobs with flexible working-hours and part-time jobs is a major barrier to extension of employment among senior age groups in Russia. Firstly, health problems among senior-age groups create obstacles to employment outside the home and to full-time employment. Secondly, full-time jobs make it hard to combine work with family responsibilities, such as care of grandchildren, on which pensioners may place higher value.

Pensioners' employment has much potential for increasing supply on the labor market. If we assume that the share of employed pensioners in total population of respective age groups stays the same as in 2007, then expected changes in the total population of various age groups in the coming 10-15 years should give an increase of employed pensioners by 1.5-3 million individuals, to a total of 11-12 million. Most of them will be aged 50-64.

All other things being equal, the labor force participation of pensioners will be enhanced by improvement of education levels in new pensioner cohorts. As mentioned above, higher or secondary vocational education is a significant precondition for continuation of employment of pensioners. Nevertheless, unless life-long learning programmes are put in place, levels of qualification of senior-age employees will fail to match market needs, while use of pensioners to fill jobs, which do not require high standards of

Box 6.2. Half of European men retire before they are 61, and half of women before they are 60 years old

Although average life spans in developed countries started to grow rapidly in the 1960s, many countries have reduced the standard retirement age. In OECD, life expectancy rose from 68.5 years in 1958 to 75.6 years in 1993. In the same period, the average retirement age in men declined from 64.5 to 62.2 years and from 61.8 to 60.7 years for women.

However, since the early 1990s, in order to keep the pension system sustainable in conditions of rapid population ageing, about 30 OECD countries have taken steps to modify the system, including lengthening of working life. 7 countries enacted gradual increase of retirement age for both men and women, and another 5 raised the retirement age for women (previously lower than for men). As a result of these reforms, most OECD countries will have 65 years as their standard retirement age, although, in the United Kingdom, Germany, Denmark, Iceland and USA, the age has already been raised to 67 years and will remain unchanged in coming years. France, Hungary, the Czech Republic and Slovakia are the only countries, which intend to leave their retirement age unchanged (below 65 years). In another 4 countries, women are entitled to retire and receive full pensions earlier than the age of 65, which is applicable for men.

Today, the official retirement age for men, when they are entitled to full pensions, is 65-66 years (depending on employment sectors) in 14 European Union countries, 65-67 years in Denmark and 61-67 years in Sweden. 6 other EU countries have retirement ages of 62-63 years, and in France, Czech Republic and Malta, the age is even lower at 60, 61.5 and 61 years, respectively.

In almost half of Europe-25 countries, the officially applicable retirement age for women is the same as for men. In the remaining 12, it is lower: one year less in Belgium and Malta, 1.5-2.5 years less in Latvia,

Lithuania and Slovenia and 3.5 years less in Estonia. In the Czech Republic, it is 1.5-6.5 years lower: women there can retire from the age of 55-60 years. In 5 EU countries (Greece, Italy, Austria, Poland and United Kingdom), where the officially applicable retirement age for men is 65 years, the age is 5 years lower for women.

However, the age, at which most men and women actually quit the labor market and retire, is very dissimilar between countries and usually lower than the official retirement age.

Median factual retirement age for women in Europe-25, as of 2005, according to findings of a selective labor force study, was 59.4 years, which is 16 months below median retirement age for men (60.7 years). Median retirement age for women in different countries varied between 55.2 years in Poland and Slovenia and 63.3 years in Sweden, while median retirement age for men was between 57 years in Poland and 65 years in Estonia and Cyprus. Median age at which people factually retired in most EU countries was below the official age.

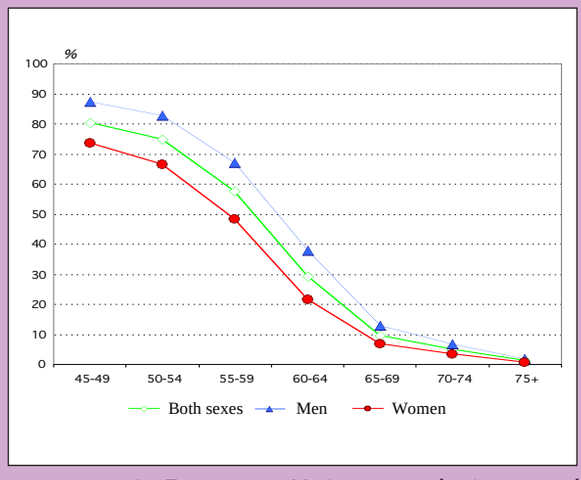


Figure 6.B. *Employment rates in European Union population aged 45 years and older (EC-27), according to findings of labor force study for 2007, %*

Men and women gradually quit the labor market over a period of about 8 years. A relatively small number of men and women opt for reduced working hours on the threshold of retirement.

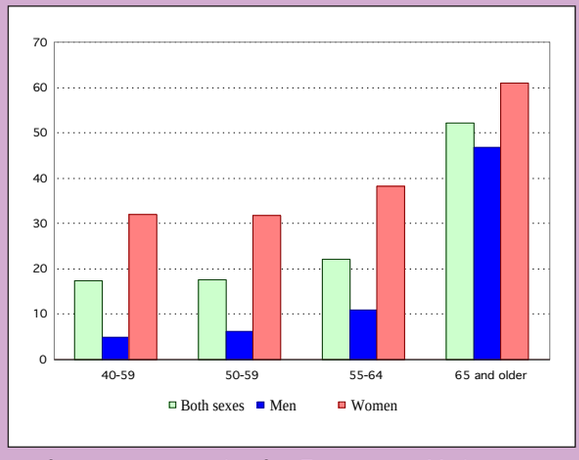


Figure 6.C. *Partial employment rates in the European Union, aged 40 years and older (EU-27), according to labor force study findings for 2007, % of total employment rates*

European Union Labour Force Survey-Annual results 2007 // Data in focus. Population and Social Conditions. 27/2008 – http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1073,46587259&_dad=portal&_schema=PORTAL&p_product_code=KS-QA-08-027;
The transition of women and men from work to retirement // Statistics in focus. Population and Social Conditions. 97/2007 - http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1073,46587259&_dad=portal&_schema=PORTAL&p_product_code=KS-SF-07-097.
Eurostat Database lfsa_ergan, lfsa_eppga extracted 26 September, 2008/

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qualification, is inconsistent with objectives for improving labor productivity.

On the other hand, changes in the pension system might have the opposite effect, encouraging pensioners to quit the labor market. As long as pension benefits grow more slowly than wage and are not much higher than the minimal subsistence level, pensioners will be largely motivated to stay in employment. But if efforts to raise pensions prove successful, some pensioners who now work in order to make ends meet will quit the labor market.

So there are risks that a larger population of employed pensioners will fail to alleviate labor market problems, and spread of early retirement when the overall population is ageing will, of course, create serious problems for the pension system. The problem, also, is that, so long as it is permissible to receive a pension while also receiving wage, various incentive schemes to encourage voluntary postponement of the age of pension entitlement will either fail to work or will require very high-rate indemnification to employees, who have chosen to postpone applying for a pension. The question then arises of what is preferable: imposition of pensioner employment restrictions, which will encourage people to postpone their retirement, or raising of the normal retirement age?

What are the potential effects of a restriction on rights of pensioners to work? Will it help to resolve social and employment problems engendered by ageing of the population?

Potential wage is of major importance for a pensioner's decision whether or not to remain in his or her employment. Pensioners who can obtain the highest wages are most likely to stay on the labor market.[15] Restriction of pensions to pensioners who continue to work will have least impact on highly paid workers and most impact on those in low-paid jobs. So, to prevent limitations on pensions leading to decline (below a specific threshold) of the share of working pensioners, there will have to be wage-differentiated pension benefits restrictions (Table 6.2). In other words, it is better to restrict the total income levels of a working pensioner rather than the level of his pension.

So adjustment of the income limitation threshold for working pensioners can limit the number of pensioners who quit the labor market and provide incentives for more qualified people to stay in the labor market. Combined with tools serving to encourage large growth of pension capital (real and nominal) thanks to voluntary postponement of retirement, such a policy help to deal with problems of the labor market and of the pension system.

However, calculations show that restrictions on income of working pensioners will augment risks of poverty, particularly in households which include people who have taken early retirement, people who have retired at the standard age and disability pension recipients.[16] So pensioner employment restrictions are hazardous in two ways: they can reduce employment rates in senior-age groups and increase poverty rates among pensioners, potentially increasing the need for social assistance programs.

As result, under the conditions of population ageing the most efficient approach is likely to be obtained from a policy which keeps pensioners working, while gradually raising the age at which people qualify for a pension. Despite the obviously challenging nature of such an approach, there is no way of avoiding changes in the pension age in Russia in the near future.

There are good reasons for such an increase even if there is no improvement in mortality rates. First, there is the existing gap in life expectancy between men and women. Second, the age at which young people enter the labor market is rising due to longer duration of education and to obstacles, which make it harder for young people to enter the formal labor market (levels of unemployment and informal employment among young people are growing). Third, jobs requiring hard manual work represent a declining share of the labor market, so physical limitations are less of a problem for older people on the labor market.

There are many ways of raising retirement age while mitigating adverse effects, such as higher rates of unemployment or disability in senior-age groups. Approaches include: reform of early retirement practices; change in the expected pension payment period, used to calculate the insurance part of employment pensions, to make the period reflect changes in expected life span; and, finally, leveling of standard retirement age for men and women to 60-62 years for both sexes (at a rate of 4 months annually).

6.3.4. Increase of employment rates among the disabled

Official estimates suggest that total disability rates in Russia are approximately the same as in developed countries. But employment rates among disabled people are much lower in Russia than the OECD average, where about 50-70% of disabled people of working age have jobs; in Russia, according to various estimates for 2002-2007, employment rates are about 11-15% for all disabled and 24-32% for disabled individuals of working age.

The disabled in Russia face serious obstacles to improvement of their participation in paid employment. This is shown, among other things, by Labor force surveys (LFS) data on the duration of unem-

Table 6.3. *Shares of employed disabled people in total disabled (by groups), %*

	2002	2003	2004	2005	2006
All disabled people with restricted ability to work, of which	10.5	11.4	12.0	12.9	13.8
people with 3rd level disability	2.8	3.1	4.4	4.8	5.7
people with 2nd level disability	5.0	6.0	7.0	8.5	9.5
people with 1st level disability	35.4	36.0	34.8	32.9	31.8
disabled children	5.1	4.2	2.9	2.4	2.1
Total disabled in receipt of pensions, of which	17.9	19.1	20.2	21.6	22.5
people receiving employment pensions by reason of disability	17.9	19.1	20.3	21.7	22.5
people receiving disability pensions as part of government provision	19.8	19.6	19.2	18.7	18.6

Sources: Estimates using data of Form 94 "Pension", information from the government project, "Social Protection for Disabled People in 2006-2010", and findings of surveys as follows: NOBUS (2003) and "Parents and children, men and women in family and society" (RusGGS 2004 and 2007).

ployment. Disabled people consistently take longer to find a job than all other unemployed groups, and this indicator has been growing since 2004. In 2006, 64% of disabled people who were unemployed needed more than 12 months to find a job.[17] Duration of completed unemployment of disabled people registered at the state employment service is almost twice less; however, the numbers of disabled who seek help from the employment service, although growing, remains very small (slightly more than 200,000 individuals in 2006).[18] Moreover, as shown by the NOBUS study, chances of obtaining paid work are lower not only for disabled people, but also for members of their household, who are not disabled.

As shown by Table 6.3, there has been some growth in disabled employment during recent years, although the trend among several sub-categories of the disabled has been towards decline. Factors determining employment among the disabled have different impacts. First, there are macro-economic factors, such as increase of vacancies and labor force deficit (already apparent, through still only structural). Second, there are tax, social policy and employment policy tools, including: higher social security payments for the disabled; changeover from in-kind benefits and discounts to cash benefits; cuts in funds available to support employment programmes; enactment of the Russian Tax Code, which abolished (in 2002) preferences for all-Russian organizations of disabled people, and (in 2004) preferences for employers, who use low-paid disabled workers in excess of specified quotas.

On the whole, employment rates of disabled people in Russia remain low.

Integration on the labor market is particularly difficult for young disabled people, although Russia has about 1 million disabled people of 15-35 y.o. Early disability proves an almost insuperable obstacle to employment income. Other factors keeping disabled people of working age off the labor market are: relatively low education levels; low salaries (even disabled people with relatively high levels of education do not get the same wage as people who are not disabled); physical inaccessibility and lack of provision for disabled people at places of work (limiting them to employment at home or at specialized facilities)[19], insufficient flexibility of the labor market and lack of part-time jobs.[20]

Unlike in OECD countries, average salaries of disabled people in Russia for the same work and same hours are lower than those of people without disability, and differentiation is also less. Certainly, not all differences in salaries reflect discriminative practices against the disabled: salary differences are partly due to lower labor productivity among the disabled, which, in turn, reflect significantly lower education levels. However, whatever the reason for lower salaries paid to the disabled, it contributes to their poverty and vulnerability and, all other things being equal, reduces their employment motivation. As shown by polls of disabled people, many of them prefer to rely on social payments and benefits rather than employment.[21]

It is in the interests of Russian society to improve employment rates among the disabled. If Russia could raise disabled employment rates to the current average OECD rate, it would boost its employed population by about 3.6 million individuals, without needing to change demographic or migration parameters.

Such an initiative is also in the interests of the disabled. International practice shows that, although income support to the disabled from disability benefits and other social security payments is at very high levels in some countries, unemployed disabled people are almost twice poorer than those who are employed.[22] In OECD, almost half of incomes of the disabled are salaries, and differences in salary to disabled and non-disabled people are minimal in most OECD countries.[23] The principal difference is between those who have jobs and those who do not.

Russian public policy in respect of the disabled people is based on their division into categories, making some disabled people more vulnerable and at risk of poverty. Social benefits, programmes and services, which are available to the disabled, depend on the circumstances, which caused their disability. War invalids from World War II and other military invalids are in the best position, while disabled children and people, who have been disabled since childhood, are in the worst position.

For disabled people of working age groups, it is very valuable to have access to sources of income other than social security transfers, mainly wages.

So the interests of society and of the disabled would be served by more active public policy to improve the human capital of disabled people and to create conditions for their supportive employment at ordinary enterprises.

6.3.5. Structural adjustments compensating loss of human resources

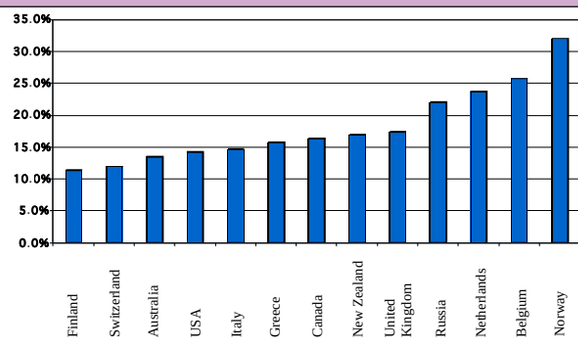
Extension of working hours. According to Rosstat data, work time per employee at mid-size and large enterprises was at a peak (1852 hours annually) at the beginning of the transition period. Afterwards, the rate went into decline until 1997, when it was 1690 hours. Growth resumed after 1997 to a level of 1763 hours by 2004, at which the indicator has remained stable in subsequent years.[24]

This work time indicator is approximately equal to that in the OECD, and there is no reason to expect further growth (at least, in the formal sector of the economy) during the next decade. Any growth is held back by increase in the years spent in education and rigid legal restrictions (in the formal sector) on permissible annual over-time (not more than 120 hours). However, this does not preclude increase of hours worked (sectorally and regionally and at specific industries and locations, where there is a labor shortage) as a way of offsetting shortage of labor supply.

Inter-sector re-location of labor and growth of labor productivity. Higher labor productivity is the key precondition for maintaining high rates of Russian economic growth in a context of labor shortages. One way of achieving this is through well planned inter-sector re-distribution of available human resources – for instance, their relocation from the budget-funded sectors (mainly from public social services), which is presently characterized by low productivity, to the highly productive and rapidly growing sectors of business services and processing.

At present public sector has large excessive employment rates, which could be eliminated through relocation in favor of more productive sectors. According to a World Bank study, this situation is typical not only for Russia, but also for the majority of other transition countries.[25]

Only three developed countries – Norway, Belgium and the Netherlands (three of the smallest and best-developed countries in Western Europe) – are ahead of Russia by the share of total employees working in the civilian public sector (Figure 6.11). But, even in an optimistic scenario, Russia will not be able to attain income levels now enjoyed by those countries before 2020, and



Source: Calculations by experts of the Center for Strategic Developments (CSD) using database of the International Labor Organization.

Figure 6.11. *Share of employees in civilian public sector in total employment (%)*

such high employment rates in the public sector are unaffordable for Russia today. High rates of employment in the public sector are only maintained by retention of a large number of low-quality jobs: jobs, which are low paid, low skilled and non productive. This inevitably entails wasteful and non-efficient use of human resources in the public sector.

Reforms, which improve efficiency of public sector, and increase funding for such sectors in conditions of rapid economic growth should ensure better quality of jobs (higher salaries, better skills and higher productivity). Overall number of public jobs will be cut, freeing human resources for other sectors of the economy without any loss in volume and quality of social services, which the public sector provides.

If Russia can reduce the share of public sectors in total employment from 22% to 17%, which is the level in the United Kingdom (that country follows Russia in the order of public employment shares seen in Figure 6.11), it will free about 3 million individuals for employment in other parts of the economy.

Inter-sector – and even intra-sector – re-distribution of human resources has much potential for reducing the gap between supply and demand in the labor market. In conditions of dwindling supply and growing mobility of human resources, the majority of released employees can take better-quality jobs that are created at other firms as economic growth proceeds. This is already happening: according to a World Bank study, as early as the beginning of this decade, re-distribution of employees between companies was providing more than 50% of growth in labor productivity reported in Russia.[26] Re-distribution of human resources in favor of more productive firms enabled the Russian economy to support high rates of labor productivity growth without overall increase of job numbers.

Further such re-distribution is inevitable in the future. As shown by a study of Russian economic competitiveness in 2006 by the World Bank and Higher School of Economics, 35-40% of Russian manufacturing companies are making uncompetitive products and tending towards further decline in competitiveness – they are "outsiders".[27] Their eventual re-structuring is inevitable, and it will release a large share of employees to help offset the labor market deficit.

However, processes of job creation and job liquidation do not always coincide in time and space. There are numerous administrative barriers to re-structuring of inefficient businesses. As shown in the "Doing Business" study by the World Bank, average time required in Russia to close down a business (3.8 years) is over 2.5 more than the average in high-income OECD countries, and preservation of value in the course of re-structuring in Russia is almost 3 times lower than in those countries.[28]

It may also happen that large-scale re-structuring of businesses is not accompanied by creation of a sufficient number of new jobs in the same region, and it may not be possible for employees to move to other regions, where there is particularly high demand for labor. Large-scale re-training of the severed employees is then needed, but actual capacity for such re-training remains inadequate. Obstacles to labor force release are particularly great, when they concern re-structuring of large industrial facilities that provide a large share of jobs in local employment markets.

Transition from resource-based to innovation-based growth model should provide another powerful driver for productivity growth. The government's Concept for Long-Term Socio-Economic Development of Russia up to 2020 states that innovation should be the main economic growth factor in all sectors, and that labor productivity in sectors of key importance for national competitiveness should rise by 3-5 times. The share of industrial companies where innovation is practised should rise to 40 50% (from 8.5% in 2007), and the share of innovative products in total manufactured outputs should increase from 5.5% to 25 35%.

Interregional labor mobility. Another way of reducing tensions on the national labor market is relocation of labor supply between local markets with varying conditions.

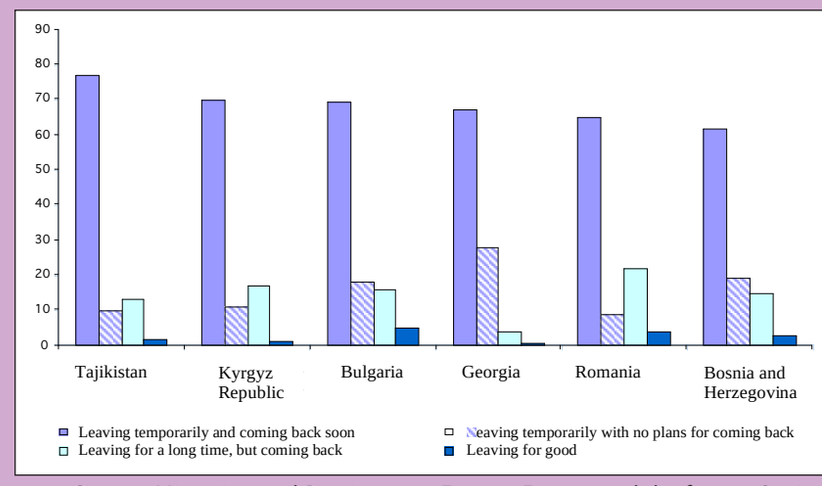
According to Rosstat, in 2008 19 (out of 80) Russia's members of the Federation had more than 50% of the country's total unemployed population (as estimated by the International Labor Organization), and differentials in unemployment rates between the wealthiest and poorest regions is more than 100-fold. The unemployed fail to seek jobs in other regions due to interregional barriers to labor migration, particularly under-development of housing markets.

The Center for Economic and Financial Research (CEFIR) estimated the potential for development of Russian interregional mobility using a gravity model, which was developed for this purpose in collaboration with the Center for Strategic Research as part of the project "Strategic Audit of the Russian Federation".[29] The simulations suggest that the domestic migration ratio (domestic migrants as a share of total population) will continue to decline until 2010. In 2011-2020, however, rapid growth of the ratio (from 0.7 to 3.1%) is probable. This development will be due to growing demand for housing, supported by rapid growth of household incomes, which will help to remove barriers on the housing market and make housing in most regions more accessible for newcomers.

Greater labor mobility will help to reduce unemployment rates in regions with excess labor supply and raise employment rates in regions with labor

shortages. The potential outcome will be employment growth by about 2 millions employees, without any additional growth in the working-age population.

However, realization of this potential could be limited by intractable structural obstacles, such as mismatch between actual skill mix of labor migrants and the structure of demand in recipient regions. For example, donor regions may release workers from industrial facilities, while new jobs in recipient regions are likely to be created in services.



Source: Migration and Remittances: Eastern Europe and the former Soviet Union / Ed. by Ali Mansoor and Bryce Quillin. – The World Bank, Washington DC, 2006, p. 86-90.

Figure 6.12. *Preferences between short-term and long-term migration*

6.3.6. International labor migration

International labor migration offers considerable opportunities for offsetting human resource losses in Russia but full-scale use of this potential is unlikely to be feasible. As mentioned in Chapter 5, about 15 million working-age individuals are needed to cover Russia's human resource deficit. But the same Chapter shows the obstacles to any large-scale immigration to Russia: arrival of a large immigrant population would create a risk of social conflict. The official Concept for Demographic Policy up to 2025 says that annual immigration should be at least 200,000 individuals by 2106 and more than 300,000 annually by 2025. For purposes of our analysis, we used conservative estimates of 250,000 average net annual immigrants. That would provide no more than 3 million extra people of working age by 2020.

However, for better compatibility this number should be controlled for the longer than average working hours. Majority of immigrants (80% at present) are employed in the informal economy, where there is no compliance with legal restrictions on working hours. As a result, immigrants are working, on average, 60 hours per month more than Russian citizens.[30] Assuming that, in future, a large part of migrants will continue to be employed in the informal sector, with longer-than-average working hours, one job taken by the immigrant will be equivalent on in terms of working hours to 1.3 additional employees in the formal sector. So, taking account of the working-hours factor, external migration by 2020 could augment existing human resources by over 4 million employees.

People with low professional skills are predominant among job-seeking migrants from the CIS. But, as shown by studies in the Southern Federal District, the main deficit is of highly-skilled workers and mid-level technicians. So it will be necessary to develop specialized training formats for foreign immigrants, and it will be more rational to develop some of them outside Russia, in the countries of origin of migrants, using Russian assistance. Such training will be more successful if underpinned by the widespread practice of organized migrant recruitment by large Russian companies, based on multi-year contracts and professional training with assistance from employers.

However, such practices could be complicated due to preference by the migrants from CIS for short-term employment. As reported by the World Bank (Figure 6.12), preference for short-term migration is particularly marked in Tajikistan and Kirgizia. More than 70% of labor migrants from those countries "leave home temporarily and come back before long". According to opinion polls, the majority of them have no intention of staying in Russia permanently. Investments in professional training of such migrants may prove unefficient for employers and for the recipient country.

6.4. The labor market, female employment and maternity

Female employment is at high levels in Russia for a number of historical reasons, and the growing labor deficit suggests that demand for female labor will stay high in the foreseeable future. As mentioned earlier, a large part of young women who are out of employment are either on maternity or parental leave or have decided

not to work because they are raising small children.

Implementation of a demographic programme to boost the birth rate emphasizes difficulty of reconciling the conflicting claims of maternal and labor responsibilities on women's time and energy.

Childbearing reduces women's participation on the labor market. The more children are born, the lower the share of women who continue to work and the higher the share of housewives (Figure 6.13). Birth of a first child makes little change to the share of women in employment, but greatly increases the share who are housewives. Birth of a second child reduces labor activity more dramatically (by 4-5%). And birth of a third or any successive children reduces the share of women in employment by 16%.

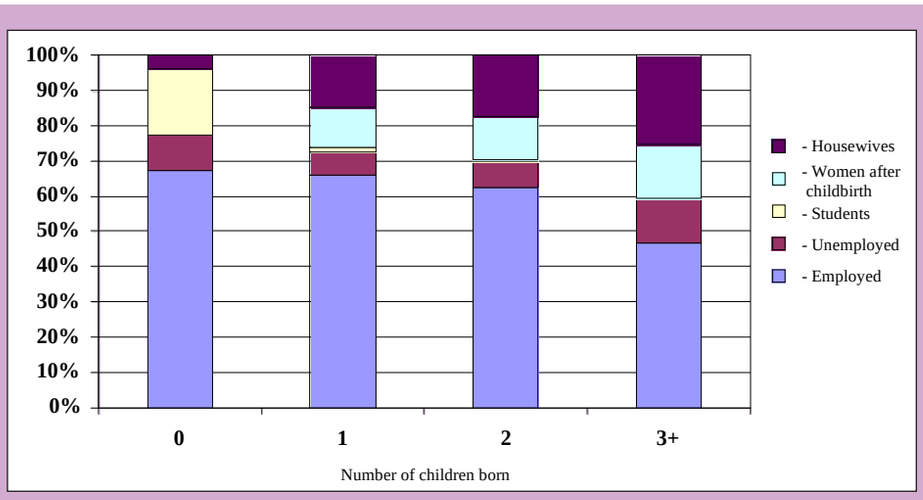
Russian women who leave the labor market to have a child usually do so only temporarily. Employment interruption for child care is directly dependent on age of the child and entitlement to paid or unpaid leave, to various child allowances, and accessibility/affordability of pre-school facilities. As result, the employment rates are growing first time after the end of paid parental leave (up to the child's age of one and a half years), and the second time after the end of unpaid parental leave, which lasts for up to three years after birth of the child (Figure 6.14).

The interval between successive births (intergenetic interval) in Russia today is almost 5 years, so the number of children in the family does not affect the woman's decision whether or not to stay on the labor market (controlling for age of the youngest child and all other factors). High employment rates of women with children most probably reflects very low levels of benefits payable to support children aged over 3 years – such relief is insufficient to compensate loss of a labor income to families with children.[31] The fact that women often stay at home when their partners or other household members earn high incomes tends to support this hypothesis.[32] From the perspective of female employment, this means that, in case of large growth in household incomes or rapid increase (by several times) in child benefits and allowances[33], some women will choose to quit the labor market to fulfil their maternal responsibilities. Every fifth respondent of working age agrees that a child loses out if his or her mother works.

If all women of reproductive age (20-44 years) who are capable of having children chose to have them in the next three years, then, all other things being equal, there would be an inevitable decline in the share of the employed female population. For most of them, of course, the interruption in employment would not last for more than three years. However, some of them would never return to the labor market. What would female employment rates looks like then?

The calculations show that child birth, regardless of the scenario, would lead to even larger reduction of employment rates among women aged 20-24 years (the age of maximal reproductive activity). But birth of a second (or, in other cases, a subsequent) child would significantly lower employment among women in the next five-year age groups (25-29 and 30-34 years). Of course, if the situation was as it is presently, most of the women would return to the labor market 1.5-3 years after the childbirth, so the decline in female employment rates would be short-term. On the whole, if declared measures to encourage birth of second children prove efficacious, and if (at least) all women who wanted to have another child actually did so, then about 16% of all employed women would quit the labor market, of whom 3.5% never to return.[34]

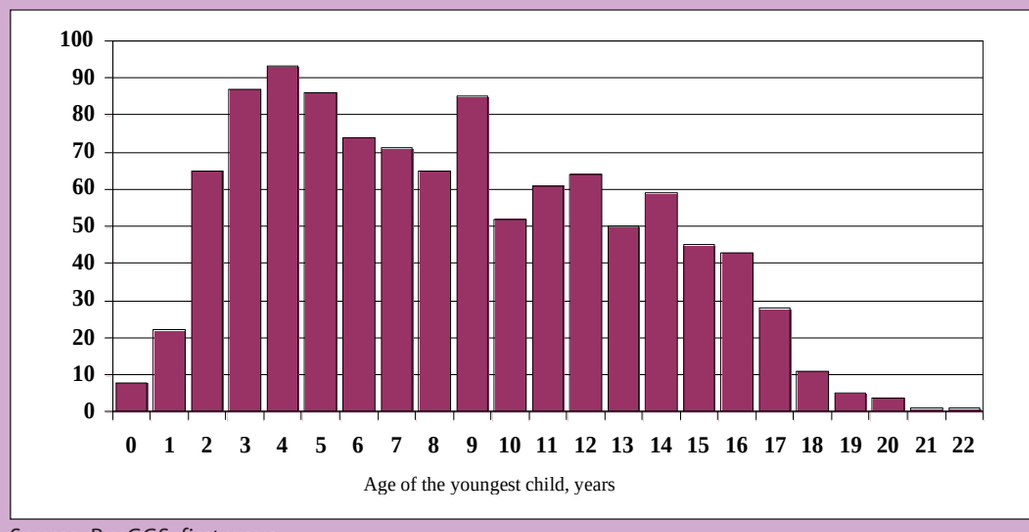
Presently, decisions by women on whether to work and whether to have another child are significantly positively inter-dependent.[35] In other words, it is not the case that employed women renounce having any children at all, while women who plan to have a child quit the labor market. At the same time, employed and non-employed women make decisions on whether to have a child in different ways, and women who intend to have a child make decisions about employment differently from those who do not intend to have a child.



Source: RusGGS, first wave

Figure 6.13. *Women employment, relative to number of children born, 2004*

The findings of our analysis make us suppose that women who intend to have a child have more moderate career ambitions, and that intention of non-employed women to have a child is primarily dependent on a desire to follow standards of marriage and procreation behavior applicable in society at large and between 7% for women with school education and more than a quarter for women with higher education. The average loss for women with two children is about 28% of potential pension accumulations, and for women with higher education, it is up to 45%. So a woman with higher education, who gives birth to two children and looks after them up to the age of 1.5 years, may have pension accumulations almost twice lower than a woman with similar education but with no children.[38]



Source: RusGGS, first wave

Figure 6.14. *Dependence of the number of women in employment on the age of the youngest child in the family, 2004*

in their own reference group. However, both groups, and particularly the second, are not numerous. Russia remains a country with high female employment rates, and the overwhelming majority of childbirths are to employed women. While first birth is virtually independent of any external considerations, the desire of an employed woman to have another child depends largely on family well-being and on the extent, to which her relatives and friends are ready to support her in the intention.[36] So it is not only the case that poverty risks push women with children into the labor market. It is also the case that expected losses due to childbirth impede realization of reproductive intentions.

Transition to a pension system, in which pension entitlements are acquired in the course of the whole life, increases the significance of loss of earnings for women with children, since these losses will be reflected in lower pension capital. Studies based on NOBUS data showed that such a "penalty" for motherhood does exist, and it is particularly discouraging that women who represent the highest-quality human capital are exposed to the biggest losses.[37] Forecast estimations using RusGGS data and macroforecasts also showed that pension losses are largely dependent on a woman's education and skills level. Birth of the first child reduces mothers' pension accumulations by 15% on average, with an interval

Can demographic policy tools counter these and other analogous losses? Analysis of posible effects of the new demographic policy on living standards of families with children, suggests that best effects will be enjoyed by families with low well-being[39]; but expert opinion is that upper limits on rates of monthly allowances available for care of a child up to 1.5 y.o. means that these allowances are "a barrier for women with high-level education and occupation".[40]

Use of "maternal capital" (the one-off payments, now offered by the Russian government, for birth of second and subsequent children) for pension accumulations can compensate, fully or to a large extent, losses suffered by women having relatively low levels of education and income.[41] Maternal capital compensates losses due to 1.5-year absence from work for women with less-than-higher education and salaries in the lower three quintiles. But in case of 3-year breaks maternal capital only offers full compensation to women with education levels no higher than elementary vocational and with salaries not exceeding the first two quintiles (40%). If the economy and salaries grow rapidly, effects of maternal capital allocations on pension accumulations will be even weaker.

So, like other measures, maternal capital is largely addressed to non-employed or low-paid women, with low education levels.

However, higher or secondary vocational education is a mass phenomenon in Russia today. Women from these education groups constitute a large share of the Russian labor market with its huge labor-force potential. There are evidences that women with higher education are tending increasingly to postpone birth of children to later dates, after they have completed their education and begun their careers. And, at the same time, it is these social groups, which experience the greatest sense of dissatisfaction at not having children.[42] So, without under-estimating the compensatory approach, we believe that working women should be the target group for policy measures aimed at stimulating the fertility. Creating the conditions for successful conciliation of employment and maternity is the way to achieve largest possible growth of the fertility among highly-skilled employed females.

Such conditions include greater accessibility and better quality of childcare arrangements, which can mitigate the serious conflict between female employment and child bearing, which prevents women with small children from being full-time participants of the labor market. Analysis shows that current deficit of pre-school facilities (waiting lists are growing) forces many Russian families to rely on non-professional assistance, most usually from grandmothers.[43] Presence of a senior-aged woman who is ready to assume at least part of childcare responsibilities improves the mother's chances of being employed.[44]

Another way of supporting maternal employment is to increase the number of jobs available with non-standard working hours: part-time jobs, flexitime, working at home, etc. Only a few percent of women are presently employed part-time, so a woman who returns to the labor market has an immediate double burden of full-time work combined with maternal responsibilities. Since a large part of polled individuals believe that a child is disadvantaged if his/her mother is working, many employed women may feel dissatisfied about lacking time to spend with their children. More opportunities for part-time employment among women with small children could, first, prevent women from quitting the labor market (vital in the current context of an ageing and dwindling labor force), second, provide families with an additional source of income, and, third, enable the woman to combine her maternal responsibilities more successfully with her work.

The principal conclusion from analysis of reproductive intentions of Russians is that the country does have potential for fertility improvement, but that best results could be obtained by combining family policy tools that take account of reproductive behavior models of women with widely dissimilar education levels, job status and income status.[45] If, on the contrary, pronatalist policy relies on financial incentives provision alone, it may be that (as happened in the 1980s) changes will be confined to the birth calendar, and increase in the completed fertility rate will not be achieved.[46] Furthermore, in that case the short-term fertility rate surge will add to the labor-force deficit, which (by reason of education and skill differences) cannot be compensated by external migration alone. So demographic development problems will remain unaddressed and economic problems will be made worse.

* * * * *

- In coming decades Russia faces a unique and historically unprecedented challenge – to support high economic growth rates despite ongoing decline of the population, including the economically active population.
- As well as shrinking in absolute terms, the work force will undergo qualitative changes. Most importantly, it will become older: demographic changes will lead to dominance of senior able-bodied age groups (40-72 years), while the share of young people up to 30 y.o. will be less than a quarter.
- Nevertheless, the Russian labor market has considerable resources to compensate the decline in labor supply. Although employment rates in middle groups of working age range are near to capacity, there is potential for bringing more people into employment at the upper and lower ends of the age pyramid.
- There is considerable potential for improving employment rates among young people. Longer time spent in education is inevitably pushing upwards the average age when young people enter the labor market, but higher youth employment could be achieved by removing other barriers. Young people are currently discriminated against on the formal employment market and are at greater risk than mid- and senior working-age groups of finding themselves unemployed or informally employed. These problems need to be addressed
- At the other end of the age pyramid a quarter of all pensioners are already among the employed. About 40% of men and almost half of women continue to work in the first 4 years after becoming pensioners. This is evidence that normal retirement age is no indicator of loss of ability to work, and these groups are another potential source for compensating labor deficits.
- Russia is remarkable for the prominence of women in the labor market. Implementation of the demographic programme for fertility improvement has emphasized tensions between motherhood and

employment, which tend to compete for women's time and energy. Further employment losses due to women quitting the labor market to have children can be offset by development of flexible employment (part-time work, flexible working hours, working from home, etc.), and by investments in childcare arrangements, which is seriously under-developed at present.

• Large-scale ageing and poor health in society forces people of working age to devote a large share of their time to care of the old, the infirm and of children. Russia has low employment rates among the disabled and members of their families. Development of social service provision for people with health problems and restricted ability to work should help to increase employment rates.

• Overall, an efficient employment policy should encourage employment throughout the life cycle, from youth to old age. But this is only possible if the employee retains skills and adds new competences at all stages of his/her working life. It is therefore imperative to develop the life-long learning education system.

• More rational use of dwindling and ageing human resources requires application of coherent and determined policies in many different areas: employment, education, health, pensions, social infrastructure, family support, and others.

• International labor migration can also serve to mitigate the effects of reduced supply of human resources.

• Demographic and migration policies, combined with all other factors conducive to greater labor-force mobility, can add about 5.2-6.3 million employees in Russia. That is equal to almost half of demographic losses. Deployment of all the measures described in this Chapter could increase supply on the Russian labor market in the period up to 2020 by about 13 million individuals, which would fully compensate supply losses, which are likely to occur in the inertial demographic scenario.

• Greater labor productivity is the key condition for maintaining high rates of economic growth in Russia despite the reduction of the able-bodied population.

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[2] Where is the Wealth of Nations: Measuring Capital for the 21st Century. The World Bank. Washington DC, 2006.
[3] The educational component of the UNDP Human Development Index (the Attained Education Index) is calculated using literacy rates in the adult population and total share of individuals, who are pursuing studies.
[4] See, for instance: Charles I. Jones. R&D based models of economic growth. The Journal of Political Economy, Vol. 103, Issue 4, Aug. 1995, pp. 759-784; Charles I. Jones. Population and ideas: a theory of endogenous growth. Department of Economics, U.C. Berkeley and NBER. September 2006.
[5] Chalwa M., Betcherman G., Banerji A. From red to grey: the third transition of aging populations in Eastern Europe and the former Soviet Union/ The World Bank, Washington DC, 2007, pp. 117-149.
[6] See Note 4 to Chapter 2
[7] To probe the extent of latent salary practice, contractual employees, who took part in the RusGGS study of 2007, were asked: "Is your contractual salary different from that paid to you in reality?" The poll showed that 12.4% of employees (not including working retirees) receive hidden salary, including 13.9% who are employed underwritten labor contracts.
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[9] RusGGS study
[10] RusGGS study
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[12] As estimated by O.V. Sinyavskaya using NOBUS data, in 2003 the Gini Index for all types of pensions was 0.211; it was 0.176 for labor pensions and 0.351 for all individual incomes received by pensioners. Salary made the largest contribution to inequality between incomes of pensioners' salary. [A.I. Pishniak, O.V. Sinyavskaya, Pensioners' families: the nature of their poverty and vulnerability // Incomes and social services: inequality, vulnerability, poverty. A monograph by a group of authors / L.N. Ovcharova, ed.; Independent Institute for Social Policy. Moscow: State University – Higher School of Economics, 2005. http://www.socpol.ru/publications/inc&ben/ch7.pdf]
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Chapter 7

DEMOGRAPHIC CHALLENGES AND SOCIAL SPENDING

7.1. Competition between economic and socio-demographic objectives

Demographic changes have large impact on the scale of social spending, which government or public institutions need to carry out in order to meet the main needs of individuals and households when, for whatever reason, they cannot meet such needs out of their own employment earnings or other incomes generated by economic activity or property.

The larger part of such spending is in response to complete or partial inability of recipients to work, so there is a high level of dependence on national demographic development, particularly development of the demographic burden, which was discussed in Chapter 1. All other things being equal, forecasted social spending needs differ greatly depending on the demographic forecast. This Chapter looks at two forecasts, one of them inertial and the other optimistic. According to the inertial forecast, which was the base forecast used until recently by federal ministries and agencies for long-term financial assessments of the pension system, historical trends in fertility and mortality will remain unchanged. The optimistic scenario, which was developed by the Institute of Demography at the State University – Higher School of Economics, predicts a large growth in fertility and a considerable increase of life expectancy.

Both scenarios predict a decline in the share of groups of working age in the overall population and larger dependency ratio. In the inertial scenario, however, dependency ratio are expected to increase mainly due to rise in the share of the elderly in total population, while the number of children declines. The optimistic forecast expects much more rapid growth of dependency ratio, compared with the inertial forecast, because it assumes growth both in the number of pensioners and in the number of children (Figure 7.1). Differences between the two forecasts have major impact on potential structure of social spending.

In the inertial demographic forecast, lower spending on education and medical care for children will partially compensate higher spending on medical care for the elderly. Calculations made in 2007 by experts of the Center for Strategic Developments (CSD), the Independent Institute for Social Policy and the Institute of the Urban Economy, as part of work on a draft version of the Concept for Long-Term Socio-Economic Development of the Russian Federation, show that, by 2020, government spending on health care, assuming inertial demographic development, will increase by 2.5% of GDP, while private health spending will grow by 0.5-0.7% of GDP. As result, total spending on health sector would rise to 9% of GDP. However, the growth of medical spending in this scenario is less due to prevalent demographic factors than to convergence of Russian socio-economic development standards with those of Western Europe. Forecast spending levels correspond to those in countries, where per capita GDP levels are equal to what Russia is expected to achieve in the future. The expected growth in health care expenses will not exceed what the economy is capable of financing. Growth of health spending will be accompanied by large improvement in affordability and quality of health care. By the same logic, scenarios that predict lower rates of economic growth also predict slower growth of health spending, which

Source: Institute of Demography at the State University – Higher School of Economics.

Figure 7.1. *Share of population younger and older than working age, respectively, as share of overall population (optimistic scenario)*

will be an obstacle to greater affordability and quality of health care.

Major growth in the number of pensioners makes increase of pension spending the main challenge in the inertial forecast. This issue is analyzed in more detail below.

The optimistic scenario predicts even greater increase of pension spending, and also foresees more need for extra spending on education and health care. In contrast with the inertial scenario, the optimistic scenario expects considerable growth in the share of children in the total population. In order for spending on education of children and young people after 2020 to be kept at levels comparable with those envisaged in the inertial demographic scenario, such spending would have to be increased by about 1/7 as a share of GDP in the optimistic scenario, all other things being equal. So, in the optimistic scenario, it will not be possible to compensate growing expenditures on health care for the elderly by reduction of spending on education. If per-capita health care spending by 2020 in the optimistic scenario is to match that in the inertial scenario it must grow by almost 1/5 as a share of GDP (to reach 11% of GDP). This is a higher level than in the majority of countries, whose per capita GDP corresponds to that forecast for Russia by 2020.

So, if the optimistic demographic forecast proves correct, total growth of pension, health and education expenditures could be 8-10% of GDP, which significantly exceeds the capacities of the Russian economy. There is a potential threat of imbalance in the budget system, sharp increase of taxation, reduction of competitiveness, and slow-down of economic growth.

Although, in the long term, improved fertility and lower mortality are, of course, beneficial for economic growth, and although they are goals to be pursued per se, their attainment could, in the short and medium terms, be in conflict with the task of speeding up economic growth.

Future growth of the demographic burden on those of working age was already discussed in Chapter 1 (Section 1.2.3). If the optimistic demographic forecast comes true, rise in fertility combined with lower mortality will make the burden even greater. The optimistic demographic forecast shows continuous decline in the share of those of working-age in the total population, to a level about 10 percentage points lower than the inertial forecast by 2050.

But, even by 2020, achievement of higher fertility and lower mortality will, inevitably, increase social pressures on the shrinking working population, which will have to bear three-fold additional social responsibilities, namely:

- to finance the social expenditures required to meet the needs of the growing number of children and their parents;
- to finance pensions and health care for the growing population of pensioners;
- to contribute to a part of their own future pensions as part of the changeover to a transition to a cumulative pension system.

It is still too early to say with any degree of certainty whether the Russian economy will be able to sustain such a triple burden without reduction in rates of economic growth. Financial outcomes of such a development will be discussed in more detail below.

Of course, none of what has been said should be interpreted as an argument against higher fertility or lower mortality. However, it should be clearly borne in mind that positive economic effects of de-

Box 7.1. EU social expenditures were more than 27.2% of GDP in 2005

In 2005 spending on social protection* in the European Union (EU-27) was 27.2% of GDP, although there were major differences between countries (Figure 7.A).

Countries, where the rate was equal to or higher than the average (27.2% of GDP or more), have 39.6% of total EU population; countries, where the rate was between 22.3% and 27.2% of GDP, have 30% of population; countries spending from 17.4% to 22.3% of their GDP on social protection, have 21.9% of EU population, and countries spending less than 17.4% of their GDP on social needs have 8.5% of EU population.

Countries with the highest rates of correlation between social spending and GDP are: Sweden (32.0%), France (31.5), Denmark (30.1), Belgium (29.7), Germany (29.4), Austria (28.8) and the Netherlands (28.2%). Their social expenses are more than twice larger (relative to GDP) than those of the 3 states, where such correlation is at the lowest rates, namely: Latvia (12.4%), Estonia (12.5%) and Lithuania (13.2%).

Differences between EU countries by absolute per capita social spending are even greater. In 2005, spending varied between 1088 purchasing power standards (as converted into euros subject to purchasing power parities) in Romania to 12,948 in Luxembourg, 8529 in Sweden and 8498 in Denmark. Outside the EU, per capita social spending is especially high in Norway (9525) and Switzerland (8891). Unlike Luxembourg and Norway, where social expenses in 2005, converted into euros and without PPP, were more than 1000 euros per capita/month on the average, Latvia, Lithuania, Bulgaria and Romania failed to spend even 70 euros for the purpose (38-67).

* Calculated using methods of the European System of Integrated Social Protection Statistics (ESSPROS Manual 1996). Social expenses include public assistance and payments proper (intended to mitigate risks related to disease, disablement, old age, loss of bread winner, unemployment and social vulnerability, to support families with children and to address housing problems), as well as administrative costs and other expenses required to maintain the social protection system. In the European Union, social security expenses are normally assessed prior to tax payments and other compulsory payments by the recipients; however, so-called "tax relief" (tax support), which means a reduction of applicable tax liabilities or exemption from taxes payable by households as a part of the social protection system, is normally not taken into account.

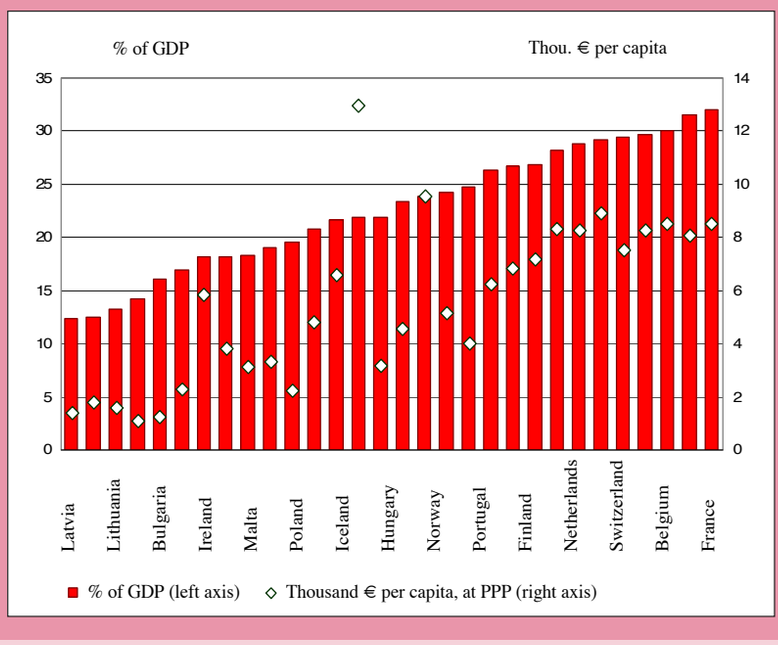

Figure 7.A. *Social expenditures in the European Union, Iceland, Norway and Switzerland in 2005, % of GDP and purchasing power per capita (converted into Euros at purchasing power parity)*

* Portugal: as of 2004.

Sources: Eurostat - Social protection in the European Union // Statistics in focus. Population and Social Conditions. 46/2008 - *http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-08-046/EN/KS-SF-08-046-EN.PDF*

Eurostat Database spr_exp_sum extracted 26 September, 2008. *http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136184,0_45572595&_dad=portal&_schema=PORTAL*

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mographic improvement (if such improvement is achieved) will not become apparent before 2025. In order to combine higher fertility and lower mortality with maximization of economic growth rates in the next fifteen years, adequate compensatory mechanisms must be found, capable of alleviating probable negative economic effects of the increased social spending that will help to improve the demographic situation up to 2025.

Comparison between Russia and developed countries in terms of social spending should take account of a large gap, which is due to dissimilar levels of economic development and prosperity. Not all Russian and foreign ratings are comparable, due to differences in methodology. Nevertheless, international experience is of considerable interest. For instance, social expenditures in the European Union in 2004 amounted to 27.3% of GDP (Box 1).

7.2. Social spending and support for financial sustainability of the pension system

Payment of pensions is one of the major social spending items in all developed countries and one of the principal reasons for the growth of such spending (due to demographic ageing). Funds spent in the European Union in 2005 on old age relief were more than 42% of all social spending, while spending on family support was under 8%. Growth of pension expenses is of increasing concern to economists everywhere. Serious problems with pension payment exist in Russia, too.

The principal long-term problem of the Russian pension system is not how to make it deficit-free. Theoretically, pension formulas presently applicable to assess amounts and methods of indexing the insurance and basic components of labor pensions should ensure indefinite financial sustainability of the pension system, keeping principles of its income formation intact. However, the price for such sustainability is further decrease of the substitution rate, calculated as correlation between the average labor pension and the average salary.

If the existing rules for pension payment, assessment and indexing remain unchanged and the inertial demographic development scenario is realized, the substitution rate will decline from 25% in 2007 to 18% in 2020 (Figure 7.2). If the optimistic demographic forecast comes true, the substitution rate will fall even further, to 16%[1].

These rates are far below long-term forecasts for OECD countries. As seen in Figure 7.3, long-term estimates of average substitution rates in developed countries are never below 40%, and average forecast substitution rate by 2045 in all OECD is 70%.

Lowering of substitution rates up to 2020 in Russia has two major reasons. First, adverse demographic tendencies: rapid dwindling of the eco-

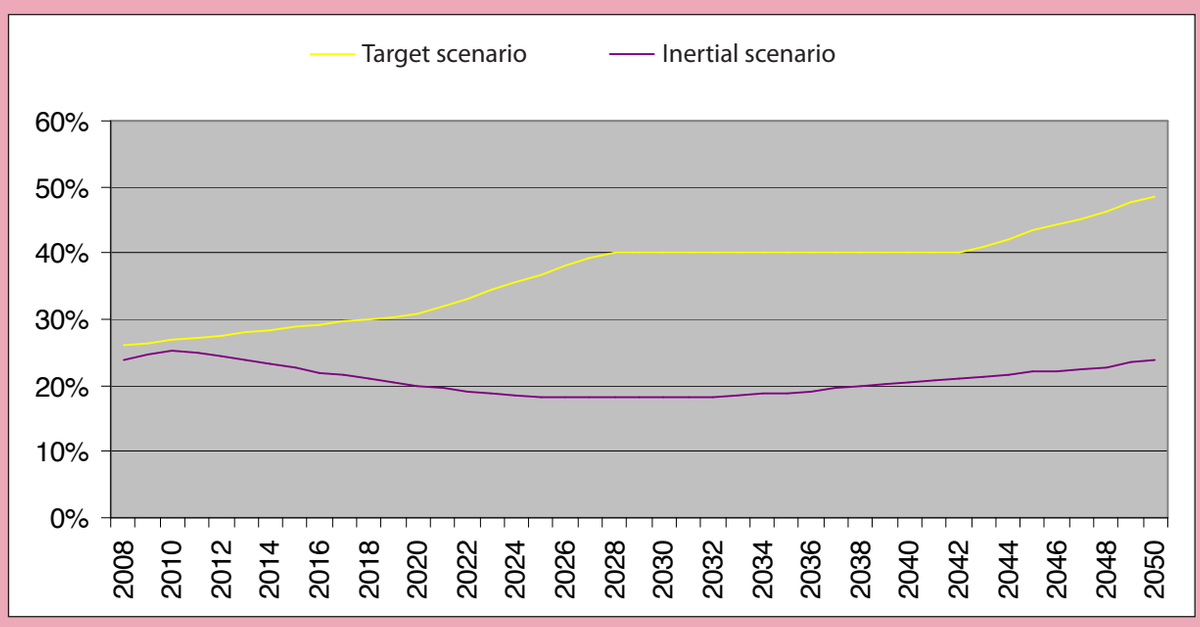

Figure 7.2. *Substitution rates in Russia according to target and inertial scenarios for pension system development (inertial demographic forecast)*

Box 7.2. Major categories of social security expenses in European Union, as of 2005 (without administrative costs and other expenses)

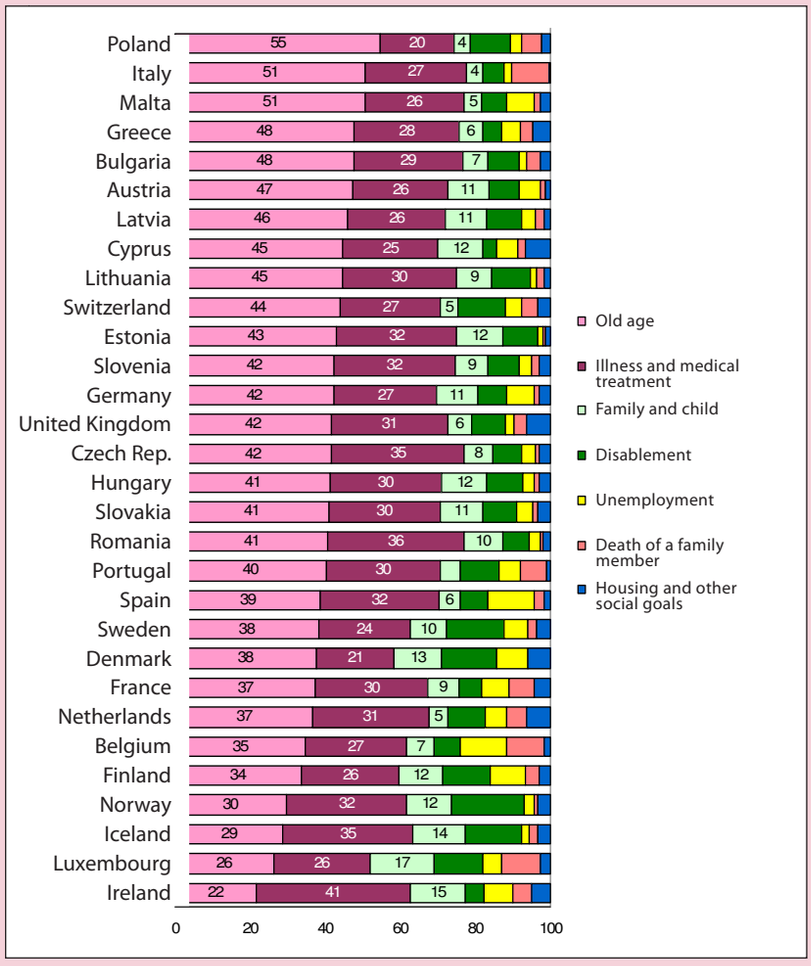

Figure 7.B. *Structure of social spending in EU, Iceland, Norway and Switzerland by categories, 2005, %*

Pensions and relief due to old age or death of a family member: 46% of all public assistance and payments, or 12.0% of GDP.

Relief due to disease or to pay for health care: 28.6% of total social payments in European Union, or 7.5% of GDP.

Disability relief: 7.9% of total public assistance and social payments, or 2.1% of GDP.

Family and child support: 8.0% of total public assistance, or 2.1% of GDP.

Unemployment benefit: 6.1% of total social protection expenses, or 1.6% of GDP.

Housing and social vulnerability: 3.5% of total public assistance and social support payments, or 0.9% of GDP.

Specific per-category distribution of social expenses is dissimilar between countries (Figure 7.B).

Sources: Eurostat - Social protection in the European Union // Statistics in focus. Population and Social Conditions. 46/2008 - *http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-SF-08-046/EN/KS-SF-08-046-EN.PDF*
Eurostat Database spr_exp_sum extracted 26 September, 2008. *http://epp.eurostat.ec.europa.eu/portal/page?_pageid=0,1136184,0_45572595&_dad=portal&_schema=PORTAL*

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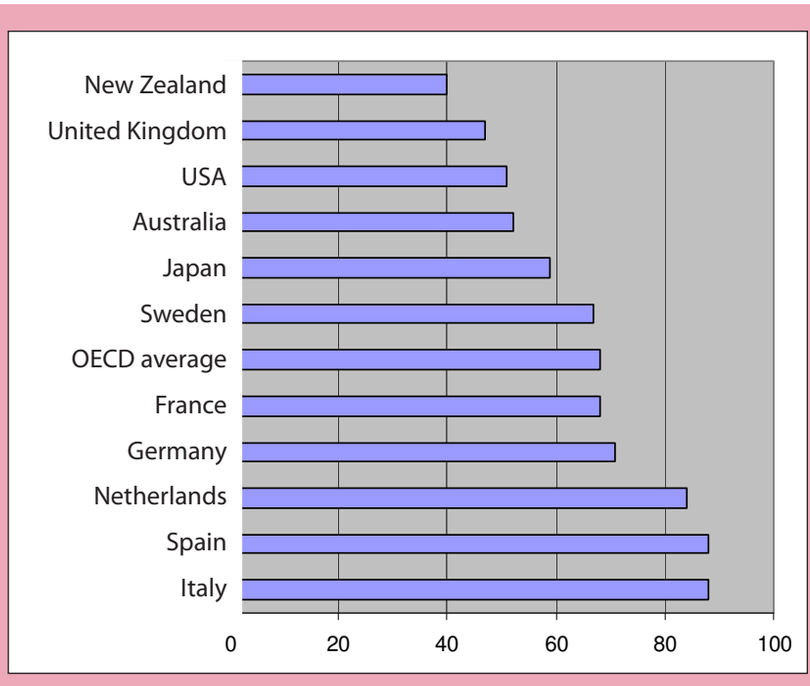
nomically active population (by 1 million a year on average) and a large increase in the number of retirement-age individuals. Second, the pressure peak due to formation of the cumulative part of the public pension insurance system falls in this period. Due to specifics of the transition period, the share of insurance funds allocated for accumulation purposes will be continuously growing, while actual cumulative pension payouts will not commence on a mass scale earlier than 2020.

So the existing pension system fails to harmonize with the goals of post-industrial national development, a cornerstone of which is creation of a large middle class. High-salary employees who are supposed to be the core middle class, will retire with pensions less than 10% of their salaries, and the situation will only worsen in the future. So the pension system, as it exists today, will continue to push pensioners out of the middle class until some time approaching the middle of the 21st century.



Source: OECD

Figure 7.3. *Expected average substitution rates in OECD member countries, %*

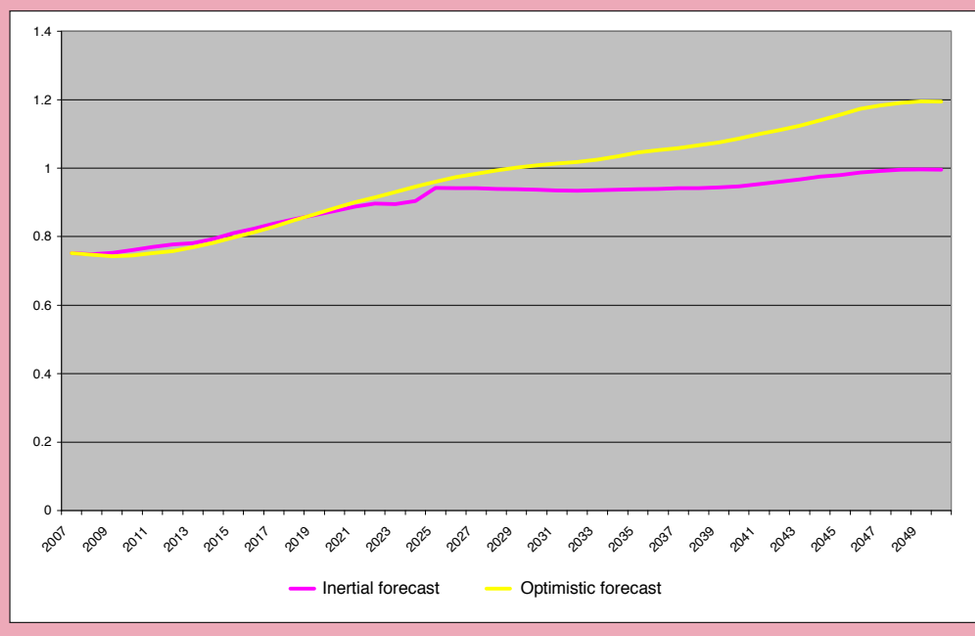
So long as a majority of pensioners believe themselves to be an under-privileged social group, the country remains vulnerable to social instability and populism. This is bound to have impact on stability and efficiency of democratic institutions, probably causing them to lag behind overall economic development. At present political weight of pensioners is not great, and does not enable them to make successful claims for larger pensions; however, their share in the total adult population will grow rapidly (Figure 7.4), so the balance of political power will shift in their favor. Already today, more than 50% of Russian families include pensioners, and by 2020 pensioners could be more half of all those cast votes at elections. So, sooner or later, demands for a greater substitution rate will be a matter of public urgency.

In case the inertial development forecast is realized, the cumulative part of pensions will not have any significant influence on amounts of pensions payable before the 2030s. So pensioners in the 2010s-2020s will not only receive low pensions, but they will also fail to become the new stratum of "capitalist pensioners" with large accumulations to support them in old age. If no economically reasonable steps are taken soon to make the substitution rate larger, growing political pressure from pensioners will push decision makers into hasty and economically irresponsible measures, with disastrous effect on economic growth. For instance, any attempt to increase the substitution rate through a corresponding increase of the unified social tax rate will make Russian industry less competitive than that of China, India and many other competitor countries, where tax pressures applicable to salaries will, most likely, continue to be much lower.

Also, long-term destabilization of public finances as a result of any economically irresponsible decisions will have negative impact on outcomes for the next pensioner generation, whose pensions are dependent on amounts of their pension accumulations. Income yields of their pension accumulations will fall, and average substitution rate applicable at the time of their retirement will be at risk of remaining lower than 40%.

In terms of political economy, this makes the 2010s-2020s into decades of heightened political risk due to concurrence of three adverse tendencies:

- a lower and decreasing substitution rate;
- cumulative pensions close to zero in that period;
- discontented pensioners dominating the electorate.



Sources: The Ministry of Economic Development of the Russian Federation, the Institute of Demography at the State University – Higher School of Economics

Figure 7.4. *Old-age dependency ratio – the number of pensioners per person of working-age*

To mitigate these risks, pension policy in the next two decades must be designed to achieve a greater substitution rate and inclusion of 2010s-2020s retirement cohorts in the middle class through accelerated capitalization of the pension system. Pension capital is the thing, which creates a powerful middle-class core among pensioners in developed countries. Such accumulations change the motivations of old-age people. As investors, pensioners are less inclined to support populist claims for higher pensions to be paid through irresponsible growth of government spending, which the national economy cannot afford, because such spending could destabilize financial markets and reduce income yields from pension savings.

What therefore has to be done in the next decade and a half is to increase the substitution rate and ensure emergence of a large-scale pensioner population with large pension savings.

In order to assess whether these two tasks are compatible, experts at the Center for Strategic Developments and the Institute for the Economy in Transition carried out a series of long-term scenario calculations using the pension model, which is kept up to date by experts of the Center for Strategic Developments and is used by the Russian Ministry for Economic Development to assess long-term consequences of pension policy efforts.

A 40% substitution rate was selected as a long-term target. The other task was to assess potential sources of cumulative pensions for generations of employees and pensioners, who currently make no contributions to the obligatory cumulative part of the pension system.

Various approaches were considered for sourcing the huge amounts required in order to achieve gradual increase of the substitution rate to target levels (Figure 7.5). First of all, we considered the inertial demographic forecast (pessimistic in terms of fertility, mortality and life expectancy).

The needs for additional funding vary greatly depending on the date at which the target substitution rate is to be achieved. For instance, assuming inertial demographic developments, increase of the substitution rate to 40% by 2015 and its maintenance at that level until 2050 will require about 220% of average annual GDP in the forecast period (more than 67 trillion roubles, discounted to 2007). Only for the period until 2020 about 40% of average annual GDP (almost 13 trillion roubles) will be needed, and, by 2020, the annual budget of the Pension Fund will have to double compared with the indicator foreseen by inertial development of the pension system (i.e. a scenario implying no changes to the existing practice of pension financing and payments).

Jumping ahead for a moment, we should say that our analysis has shown the impossibility of fund-

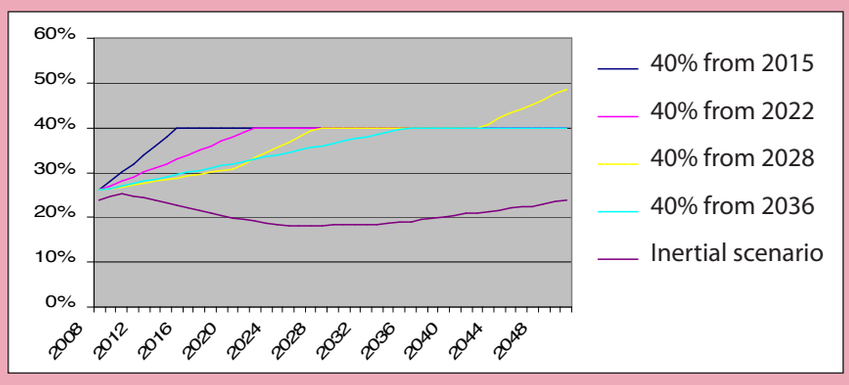


Figure 7.5. *Options for increasing the substitution rate, %*

ing (from economically reasonable sources) any scenarios, which would allow achievement of the target substitution rate before 2025.

In the scenarios, which we have developed, we set the objective of a specific plan for average increase of the pension to 40% of salary without harming economic growth and financial stability. So we placed a number of major limitations on applicability of potentially conflict-generating and destabilizing solutions. Among other things, the following was absolutely precluded:

- compulsory increase of retirement age;
- increase of tax burden (except transition to indexing of threshold rates of the unified social tax in accordance with the rate of salary growth);
- growth of transfers payable to the Pension Fund out of the federal budget beyond the boundaries of current practice.

No account was taken of possible gains from reducing the share of informal salaries (concealed from taxation) in total salaries. Impact of such measures on the pension system remain unclear. For the substitution rate to grow, increase of registered salaries has to be accompanied by increase in the number of people employed in the formal economy. If there is growth of average salary without growth in the number of employed in the formal economy, there will be greater additional expenses to be borne by the pension system to support the target substitution rate. For a specified level of the substitution rate, the average salary is determined by average salary applicable in the formal sector. So, if the number of jobs in the formal sector does not grow as compared with the retired population, the growth of registered salary will have to be spent on higher pensions to support a steady substitution rate. There will be no money left over for raising the substitution rate.

We began our analysis with the following three, potentially most significant, resources for raising the substitution rate:

1. money from the National Prosperity Fund, used to co-finance voluntary cumulative pension contributions by employees (with a proposal to maintain possibilities for adding to it until beginning of the 2010s);
2. voluntary contributions by employees to the cumulative pension system, co-financed at 1:1 from the state budget;
3. incentives for voluntary later retirement through introduction of a recommended (indicative) retirement age, which allows insured parties to obtain substantial increase of their substitution rate if they decide to retire later.

Two options were considered for joint use of the first and the second resources: inclusion of employees in the co-financing system by specific application on their part; or their automatic inclusion, failing specific application not to be included. It was estimated that only 20% of employees would

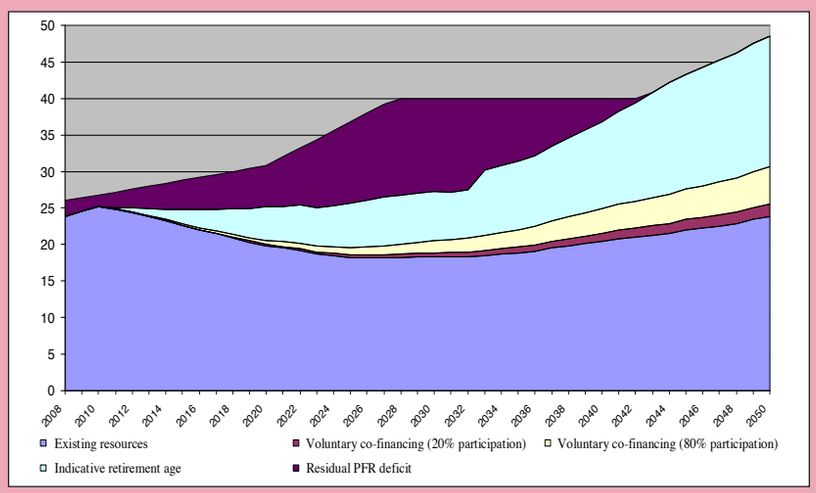


Figure 7.6. *Sources for increasing the substitution rate in the inertial demographic forecast (as percentage points of the substitution rate)*

be enlisted in case the first option was used, while the second option could bring in 80% of employees. Expected effect on substitution rates, as compared with the inertial scenario, is shown in Figure 7.6: the first of the two options has no noticeable effect on the substitution rate, while the second gives a rise of about 7 percentage points by the end of the period under consideration.

A specific mechanism to encourage later retirement on a voluntary basis could give even larger effect. We assumed that government commitments to increase ratio between pensions and wages to 40% would only be applicable to insured individuals, who follow the retirement age recommendations, which (we assumed) are for gradual leveling of male and female retirement to 65 years of age by 2030. It was not assumed that later recommended retirement age would entail a later standard retirement age. Anyone can still retire at the (younger) standard age if they wish, but the pension payable to such individuals will be much less than what he/she would receive by retiring at the recommended age. It is assumed that 70% of insured employees will retire at the recommended age, and calculation of the average substitution rate took account only of pensions payable to these pensioners. This mechanism would enable increase of the substitution rate by 10-17 p.p. after 2030.

Use of all the three resources described above should enable increase of the average substitution rate to 30% by 2025, to 40% by 2042 and to nearly 50% by 2050. But this does not solve the problem of low pensions and absence of any pension savings for pensioners in the 2020s. Until 2040, the pension system will have a residual deficit of about 38 trillion roubles (in 2007 prices) or 115% of 2007 GDP.

One way of solving this problem is to fund the residual pension system deficit until 2042 by recapitalizing it through contribution of government property. This approach has several social and economic merits.

First, it is a preferable alternative to increasing the tax burden. Gradual privatization and bringing to market of governmental assets, which are not directly involved in execution of government functions, is an economically justified step and will lead to general improvement of economic efficiency.

Second, the residual pension system deficit, like government assets, has its own ultimate limits and will disappear completely after 2042. So its funding out of government assets is a classic case of exchanging one reserve for another, and is economically very sound.

Third, large-scale transfer of government assets to the pension system for subsequent sale as a means of pension funding is an essentially new model of (potentially) popular privatization on fair terms in the best interests of the overwhelming majority of the general public. Such a policy could help improve public trust in the institutions of private property.

Fourth, such sources can be available for pension funding in the next few years, and are an excellent way of tackling the problem of the 2010s-2020s pensioner generation. Their use enables large growth of the substitution rate in the next two decades and considerable pension accumulations for senior age groups.

We used available data from the end of 2006 to estimate federal assets, which could be allocated for pension system funding. There has been almost no reduction of federal corporate assets since then. On the contrary, there has been some replenishment through consolidation of government assets in state-owned corporations. Of course, the financial crisis reduces value of such assets in the short and medium term. But the crisis will push the government to greater participation in the in economy, including takeover of insolvent financial institutions and large companies in the real sector. So the estimates below present, on the whole, a realistic picture of the long-term potential for pension funding by use of government property.

All federal assets are conventionally divided into three groups:

1. governmental stakes in companies, whose shares are traded on stock exchanges;
2. other state-owned companies (except Vneshekonombank);
3. land and real estate.

Valuation groups by groups are shown in Table 7.1.

As shown in Table 7.1, sum total of such assets is about 15 trillion roubles, which is about 40% of the residual Pension Fund deficit. The problem is that far from all government assets are usable for pension funding purposes. What is actually available consists of strategically important enterprises and federal property, which is indispensable for execution of government responsibilities. As estimated by the authors, such property represents at least a third of total federal property, and cannot be used for pension system funding.

Calculations show that, if only two thirds of federal assets are put to work to cover the residual pension system deficit, then, without other sources

of funding, a 40% substitution rate can be attained no earlier than 2036. That date could be brought forward by issue of government debt. We studied a scenario where the residual pension deficit is financed using government debt instruments equal to 15-20% of average annual GDP in the period of issue. There are several arguments, which make this scenario appear affordable.

First, total public debt of the Russian Federation, as of today, is less than 20% of GDP. This is a low level by standards of developed countries. Debt has been reduced by payments from oil & gas rent, which have thus been converted into a sort of latent financial "reserve" for economically safe public debt growth in the future. So gradual growth of public debt by 15-20% of GDP from the current very low level is affordable.

Money obtained by this mechanism should be sufficient to fully cover the residual pension system deficit if 40% substitution rate is achieved by 2028. Furthermore, comparison of residual deficit amounts with possibilities of funding during shorter (5-year) intervals shows feasibility of gradual sale of government shares in large companies (subject to the condition that government stakes in companies of strategic importance should be kept). Findings of the analysis are stated in more detail in the above-mentioned article[2].

Use of federal property for pension system recapitalization will require certain changes to the existing system of pension asset management. Most probably, federal assets for needs of the pension system will need to be placed in a new fund,

Table 7.1. Estimated federal asset values, end of 2006

	Asset groups	Estimated value (trillion roubles)
1	Government stakes in companies traded on stock exchanges (except RAO UES of Russia)	6.6
2	Other state-owned companies (except Vneshekonombank)	3.3
3	Land and real estate	5.0
	Total	14.9

Second, this is not strictly an increase of total public debt. What it really does is to transform implicit debt of the government to the future generation of pensioners into explicit debt. Since increase of the substitution rate is inevitable, such debt – even if it remained implicit – would be treated by financial markets as a part of total public debt.

Third, gradual increase of public debt as a GDP percentage could be welcomed on developing financial markets. Many financial market segments (including the market of pension annuities – lifeterm pension payments by insurance organizations out of pension accumulations) need greater volume of government securities compared with what is available for issuance in the current of public debt framework.

Fourth, use of government securities facilitates pension capitalization for pensioners of the 2020s. Inclusion of government securities in pension savings increases those savings, but it also optimizes investment portfolio structure for that generation of pensioners in accordance with applicable prudential standards for reducing financial risks of these investments.

separate from all other pension accumulations. All monies from that fund will be distributed to cumulative accounts of future and present pensioners. Since, in practice, needs for pension payment funding cannot exactly coincide in time with the privatization schedule, liquidity gaps should be covered by issuance of derivative securities based on fund assets. Any federal securities issued to support the residual pension system deficit can be placed in the same fund.

These mechanisms are generally in accord with principles underlying the existing pension insurance system, but their implementation requires major changes to pension laws. Such changes will concern the procedure for payment of insurance contributions, conduct of a personalized record-keeping system, the pension savings management system, as well as conditions and procedure for awarding and paying pensions. These are major changes, and it is fair to say that a political decision on gradual increase of the average employment pension to 40% of the average salary would mark the start of the second stage of pension reform.

It is very important to emphasize that conclusions stated above are only valid in case the in-

ertial demographic forecast proves correct. If the optimistic forecast proves correct, the sources of pension funding, which we have described, will not be sufficient to attain 40% substitution rate in the foreseeable future. According to our estimates, achievement of that target in the context of the optimistic demographic scenario will require use of all the sources described, plus mandatory increase of the standard retirement age to about 68 years for men and women by the beginning of the 2030s. Such a step will be socially justified if the optimistic demographic scenario comes true. It will reflect substantial lowering in adult mortality and longer life expectancy for Russian pensioners, matching expectancies in many developed countries, most of which have also had to raise their retirement age.

7.3. Demographic challenge to social policy: Care for the elderly

Pension provision to elderly people is not the only social problem produced by demographic ageing and other socio-demographic changes (family nuclearization, small number of children born, increased life expectancy and a gap in the life expectancies between men and women, as well as "emancipation" of older generations, who show growing preference for independence). It is characteristic of developed countries nowadays that a large share of elderly people live alone. While in less developed countries, the share of households consisting of one elderly person (aged over 60) living alone is 7%, the share in developed countries is 25%.

This makes the issue of care for the elderly increasingly significant in developed countries. There is increasing need for old people's homes and other specialized facilities for elderly people, who can no longer maintain their household independently or who require medical care. This increases needs for social spending and for a balanced policy, which enhances personal independence of old people, provides social services to those, who need them, and encourages families to look after their senior members.

Russia is not exception to this rule. According to the study, "Parents and Children, Men and Women in Society" (Russian Generations and Gender Survey; RusGGS further), every third pensioner now lives alone. This adds up to a very large social group, whose economic and social situation is a cause of public apprehension and concern.

Pensioners are living along for various reasons. Each fifth of them is widowed, more than half (59%) are divorced, and 14% have never had any permanent partners. One in six of all pensioners living alone have no children. Only 6% of them have permanent partners (who are living separately).

Older pensioners are more likely to live alone: at age 60-64, one in four pensioners lives alone, rising to one in three by age 65-69, and more than half by age 75-80 (Table 7.2). Numbers of lone pensioners will grow in coming decades, since Russia will have a larger share of pensioners, more of whom will be aged 75 years over.

Living alone in old age is a mainly feminine phenomenon: women are 86% of all pensioners living alone. To a large extent, this is due to the disastrous gap in life expectancy between men and women in Russia, which entails high widowhood rates. Also, divorced elderly women – because they are more numerous – usually fail to find a new partner to live with, while widowed or divorced men often enter a new partnership or remarry or move to live with their children. As a result, only one in four men but more than half of women have no partner at the time of retirement. By the age of 70, more than three quarters of the female pensioners are no longer in marriage, while the share of men in that situation is less than one third.

The worst placed are pensioners without partners and children. Their share in the total is not large, since the share of childless people in Russia remains relatively small. In 2004-2007, according to RusGGS data, old-age people, who are absolutely alone in demographic terms, were about 17-19% of all those living alone and 5-6% of the total pensioner population. Growth of this age group is also a reflection of early mortality: mothers aged 70-80 sometimes outlive not only their husbands, but also their own children (particularly sons).

Pensioners living alone are subject to a wide range of social and economic risks. First, their health is much inferior to that of pensioners not living alone: nearly a quarter of them have illnesses that affect their ability to work, and the share rises to a third by age 75-79 (Table 7.2). Nearly a third of the entire pensioner population is formally certified as disabled, but the share of disabled among old-age pensioners living alone without children and partners is up to 42%.

Table 7.2 Share of pensioners living alone in total pensioner population and characteristics of each age group, RusGGS (first wave), 2004, %

Age	Share living alone, %	of pensioners living alone, %			
		not working	ability to work impaired by illness	no children or partners	in need of regular care+
18-19	-	-	-	-	-
20-24	**	**	**	**	**
25-29	**	**	**	**	**
30-34	**	**	**	**	**
35-39	**	**	**	**	**
40-44	**	**	**	**	**
45-49	15.7	81.3	50.0	12.5	0.0
50-54	12.3	58.3	27.8	16.7	5.6
55-59	20.8	56.1	8.9	10.6	1.6
60-64	31.6	79.8	18.8	16.4	1.9
65-69	35.2	86.9	16.5	12.8	3.7
70-74	41.7	95.0	24.0	13.4	5.7
75-79	53.2	98.7	34.9	17.9	14.0
Total: 18-79	33.2	86.2	22.9	14.7	6.0

Notes:
1 - "-" non-studied
2 - "**" limited number of observations
3 - "+" respondent needs regular help eating and maintaining personal hygiene

Poor health means that pensioners living alone are less active economically than pensioners living with family: more than 80% of the former are not employed, and almost none of them remain employed beyond the age of 70. So they are mainly dependent on their pension, paid out of the Russian Pension Fund.

The oldest age groups have difficulty looking after themselves. In 2004-2007, about 5-6% of pensioners living alone needed regular help from others to maintain personal hygiene, and the share at ages above 75 is one in every 8 or 10 (Table 7.2).

When there are no immediate relatives, or they live too far from the pensioner, provision of care to elderly people is a particularly acute problem, since pensioners living alone often have no funds to pay for social services. As reported by RusGGS, less than 3% of pensioners living alone have ever received assistance from personnel of appropriate public institutions (professional nurses, medical nurses, social workers), and only one respondent has applied for help from a private or charitable organization. Among pensioners living alone, who have neither children nor partners, there was not a single individual who had ever received any assistance from professional organizations. So nearly all assistance to pensioners living alone is from relatives, friends, neighbors and other people, who are not professionals in this sphere. But even informal assistance such as this is only available on a regular basis to under a third of respondents, who said that they needed it. Clearly, there need to be social programmes for provision of care to pensioners who are living alone and in poor health.

Deprived of social life connected with work, lacking family contacts and often suffering from chronic diseases, pensioners living alone are the most deprived pensioner group, and are bound to suffer considerable psychological stress (Table 7.3).

One in four respondents living alone said that they feel lonely, which is three times more than the share of those who did not live alone in the 2004 poll and almost four times more in 2007. Pensioners living alone have more acute feelings of loneliness, lack of human company and loving care,

compared with those who live with somebody else (spouse/partner, children, grandchildren, etc.). They are twice as likely to feel that they are "failures", rejected by others, to feel fearful, and to have weeping fits. It was found that 10-20% of all pensioners living alone are in a near-critical state of mind.

So pensioners living alone are a high-risk group, and not only due to poverty. Accelerated growth in recent years of the basic part of labor pensions, which is higher for people aged 80 or more and for the disabled, is gradually improving their financial situation. But their main problems are acute (and unaddressed) need for social services, and psychological deprivation, which cannot be resolved by pension growth. Pensioners living alone are more in need of socio-medical, rehabilitation and socio-psychological help, and it is generally unavailable.

Table 7.3. Subjective opinions of various pensioner groups, RusGGS first wave, 2004, %

Age	Feel lonely+	Miss human company++	Feel rejected++	Feel themselves to be failures+	Fearful+	Weeping+
Pensioners living alone						
18-19	-	-	-	-	-	-
20-24	**	**	**	**	**	**
25-29	**	**	**	**	**	**
30-34	**	**	**	**	**	**
35-39	**	**	**	**	**	**
40-44	**	**	**	**	**	**
45-49	25.0	50.0	18.8	12.5	18.8	6.3
50-54	11.1	33.3	19.4	11.1	8.3	19.4
55-59	18.7	27.6	22.0	10.6	11.4	9.8
60-64	20.2	39.0	26.8	14.1	9.4	11.7
65-69	27.1	39.3	28.4	14.6	11.3	16.5
70-74	25.6	49.2	31.3	12.2	12.2	14.5
75-79	33.9	51.2	30.9	17.3	15.9	22.9
Total: 18-79	25.9	42.9	28.5	14.0	12.2	16.0
Pensioners who do not live alone						
18-19	-	-	-	-	-	-
20-24	**	**	**	**	**	**
25-29	**	**	**	**	**	**
30-34	**	**	**	**	**	**
35-39	12.5	33.3	20.8	12.5	12.5	4.2
40-44	7.8	25.5	23.5	15.7	3.9	9.8
45-49	7.0	27.9	15.1	9.3	7.0	8.1
50-54	8.2	23.4	18.4	8.6	3.9	10.2
55-59	6.6	21.0	15.2	8.1	4.5	5.8
60-64	6.5	24.8	16.5	7.2	5.2	6.3
65-69	8.9	22.3	15.7	7.3	5.1	6.9
70-74	9.0	26.7	15.5	11.4	6.8	9.8
75-79	10.2	25.7	13.2	5.3	6.8	10.6
Total: 18-79	8.1	24.0	15.9	8.2	5.4	7.7

Notes:
1 - "-" not studied
2 - "**" small number of observations
3 - "+" - "often" and "almost always" in the last week
4 - "++" – "yes, correct" or "more or less correct".

As the population ages it is of great importance to develop public and private programmes for social services, home care and various forms of community recreation for pensioners, as well as temporary care centers and up-to-date, well-equipped old people's homes. In the context of an ageing society, the principal demographic challenge for social institutions is radical reconstruction of care provision to the elderly population.

7.4. The demographic challenge for child care and education

The rise of fertility in the early 2000s created a larger population of pre-school age children. The number of children enrolled in pre-school education facilities rose by 11% over 8 years: from 4.255 million in 1999 to 4.713 million in 2006. However, the number of pre-school education institutions continues to decline: by 17% from 53,900 in 1999 to 46,200 in 2006. In 2006, there were 589 pre-school places per 1000 children aged 1-6 years. Combined with uneven distribution of such facilities across regions and municipalities, this has led to more than 6-fold growth in the number of children on the waiting list for enrollment to pre-school facilities (from 192,900 in 1999 to 1,237,900 in 2006). The trends will remain negative unless action is taken.

Inadequate budget funding of pre-school facilities means that their resources are deteriorating, their personnel are less qualified, and average ages of personnel are rising[3]. Increasing dissatisfaction of parents and growth of various costs, which parents are expected to pay in order to keep their children in pre-school institutions, are leading to reduction in the share of children, who attend such facilities (in 2006, the average number of children enrolled at aged 1-6 exceeded 58%, but has since declined).

The number of children of pre-school age is expected to grow much more rapidly in the coming decade than has been the case in recent years (Figure 7.7). If numbers of pre-school institutions and available places continue to dwindle, increasing numbers of children of this age will be left outside any pre-school education system.

However, variations in the young child population make level of demand for pre-school education highly mutable. Another sharp decline is expected from the mid-2020s. Such fluctuations may justify development of other infant care institutions in addition to pre-school facilities, including various community groups, nannies, etc.

As of today, when 13% of children aged 0-6 and 15% of those aged 1-6 are waiting for places in pre-school facilities, so there is an urgent issue of finding people to look after these children. Findings of RusGGS first-wave data were that 44% of all 2824 respondent households with children younger than 14 years have no childcare assistance outside the family, while 35.5% of households are regular users of formal childcare. Services of individuals who are non-professionals in infant care[4] are used more often than pre-school facilities or any appropriately trained personnel: 20.6% of households have used childcare services from non-professional individuals only, while 18.2% of respondents have used formal childcare only; and 17.3% have used both types of childcare.

Enrollment in kindergartens and in combined kindergartens continues to be the most widely used formal infant care service, in terms of both the number of facilities available and the number of children enrolled. This is proved by official statistics and RusGGS data. However, numbers of children enrolled in ordinary kindergartens has been declining in recent years, while enrollment in special-focus kindergartens and in child devel-

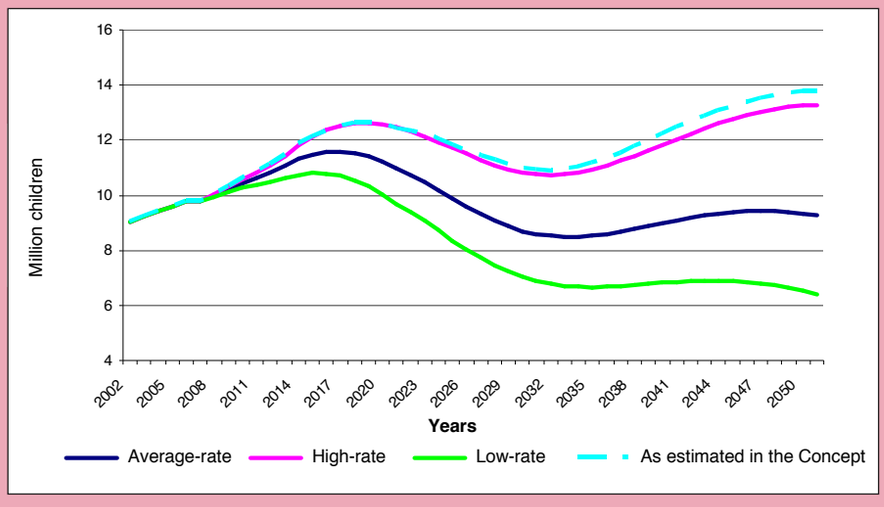
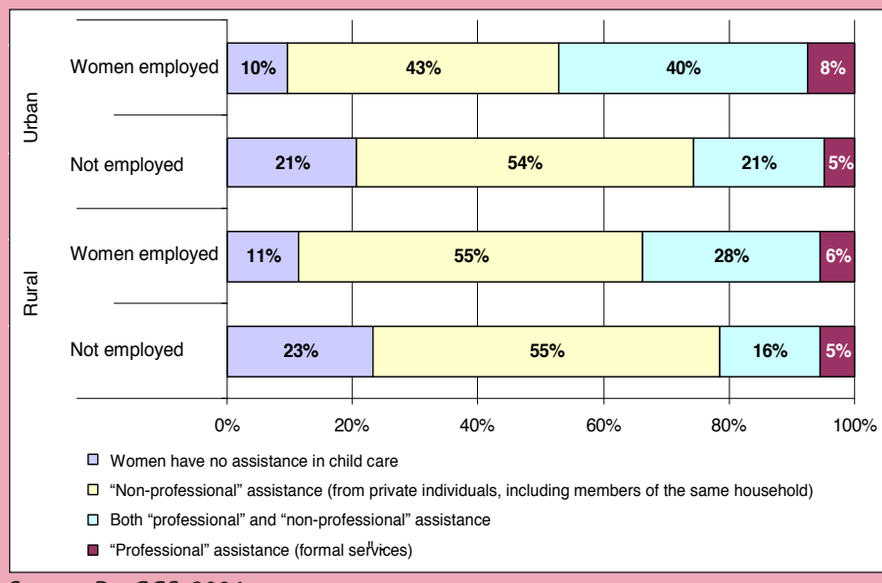


Figure 7.7. *Number of children aged 0-6 according the statistical data and various forecast scenarios, million*



Source: RusGGS, 2004

Figure 7.8. *Distribution of women with children younger than 14 years by types of child care assistance (including from members of their own household), by location and employment status*

opment centers has, on the contrary, been growing rapidly (2.5-fold and 5.6-fold, respectively, in 1999-2006). This is a sign of growing demand for an individual approach to infant care and education, which is better designed (so the parents believe) to prepare the child for school. There is also growing supply of such services, but the number of facilities remains small and they are very unevenly distributed. As reported by RusGGS, very few households (1.1%)[5] make use of professional nannies[6] and infant care groups organized by parents (0.3%).

The decision whether or not to use any formal infant care services depends on the number and age of children, and employment status of the woman.

Services from "non-professional" individuals, most usually relatives and predominantly grandmothers, are usually in demand up until school age. Households with children in the youngest age group (up to 1.5 years) make greatest use of such assistance. Demand for childcare arrangements grows in older pre-school age groups, reaching the highest level just before the child is enrolled at school (4-6 years), after which there is a sharp decline.

Employed mothers use childcare arrangements more frequently than non-employed mothers. However, rural households, are less frequent users, even when mothers are employed: while, in urban areas, almost every second household where the mother is in employment and children are under 14 years uses formal child care, the share in rural areas is only one third. However, the greater share of non-nuclear families in rural areas makes it easier to enlist assistance from other members of the household (Figure 7.8). So employed women in rural families use help from "non-professionals" (usually family members) more frequently than is the case in urban families.

Level of education of the mother and household incomes do not often determine whether the child will be enrolled in a pre-school facility at all, but they do determine what specific formal childcare services will be chosen. Demand for innovative formal services and assistance from professional educators is more usual among more educated parents, reflecting their desire to start personal development of the child early on and to ensure that he/she obtains better-quality school education.

Women with higher education are most likely to use formal childcare services, since such women typically combine desire for better pre-school education and lack of time to provide child care themselves at home. But this same group also has the highest share of women, whose children receive assistance from both formal facilities and non-professionals. This situation reflects normal working hours of professional facilities: there has to be someone to take the child there and bring him/her home, so the parents need help from professional nannies, governors, etc.

Affordability of child care services is not a big issue, but more varied and better-quality services are only fully available to wealthier families[7] (Figure 7.9), and good-quality education for children is relatively cheaper for them than for low-income families.

Living standards of Russian families depend mainly on the level of employment income received by parents[8]. However, the birth of each child interrupts (to varying extents) employment

and earnings of the mother. So ultimate success of any policy designed to alleviate poverty in families with children and to improve fertility rates will, to a great extent, dependent on success in reconciliation between female employment and having children[9]. Comparisons between countries show that the best way of overcoming this conflict is to ensure provision of formal child care independently of a woman's income level and the age of her child[10].

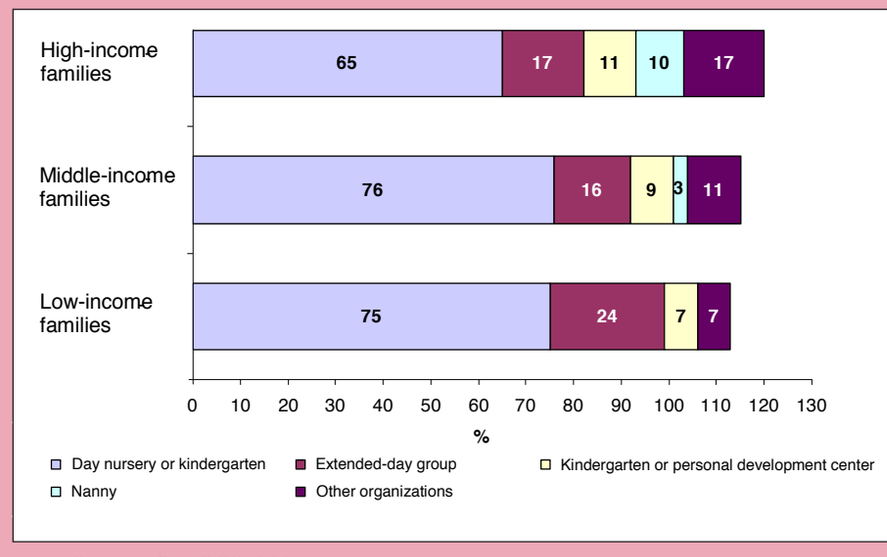
At present, the child care market in Russia remains under-developed and there is little differentiation between available services. Some social strata have difficulty even affording services offered by kindergartens, while terms and conditions of services do not always match needs (as regards working hours of the facilities, fees payable, and quality of services).

Underdevelopment of social services has some less direct but highly important consequences. Specifically, a woman's decision on whether she will have a child (or a second or subsequent child) depends in part on whether formal childcare arrangements are available and affordable, enabling her to return to employment. Unless they are combined with adequate development of the child care services, financial incentives to boost fertility rates may give results for a short time only and may push many women – whether mothers or grandmothers – out of the job market.

It should be added that no family can make up for the existing public policy failures and inadequate development of the social service market. The consequence of this is increase in numbers of children left vulnerable and without proper care, and growth of social orphanhood. It is far from always the case that higher fertility mean an increase in responsible parenthood, particularly when the emphasis is on material incentives alone. Growing social orphanhood in Russia is a reality of recent years and a threat to the country's future social development.

* * * * *

- Whatever demographic scenario is realized in Russia in the future, it is certain that the share of people of working age in the total population will continue to decline, while the dependency pressure on those of working age will continue to grow. However, dependency patterns differ between scenarios: in the inertial scenario, they will grow, mainly, through an increasing share of elderly population, while the number of children born will tend to decline. In the optimistic scenario, dependency pressure will grow far more rapidly, due both to an increasing number of children born and expansion of senior-age population. Differences between the two forecasts have substantial impact on required structure of social spending in the future.
- While higher fertility, improved public health and reduced mortality are undoubtedly beneficial for economic growth in the long term, and although they are objectives to be pursued per se, their attainment may act against faster economic growth in the short and medium term.
- The largest share of public social spending is on support of the pension system and this spending will inevitably grow further, since society is ageing. If the optimistic demographic forecast comes true, total growth of pension, health and education expenses may be 8-10% of GDP, which is considerably more than the Russian economy can afford. This could lead to destabilization of the budget system, unjustified growth of tax pres-



Source: RusGGS, 2004

Figure 7.9. *Use of various formal child care services by level of household income, % of respondents (more than one answer could be given)*

Box 7.3. Social spending on support of families and children in OECD

In 2003, in 24 OECD countries, for which data are available*, social benefits and support payments to families (not including spending on health and housing, which are also of much importance to families) were 2.4% of GDP: 1.3% of GDP consisted of cash payments (child benefits depending, in some countries, on the age of the child and income derived by the family; payments and benefits available during leave from work for child-care, payments to single parents and for education and care of children); 0.9% of GDP are services (direct funding and subsidies for child care and pre-school education services, and some other services available to families); 0.2% of GDP are tax discounts (exclusion of child relief from taxable base, exemption from payments on child credits, etc.).

Cash payments are the main form of family support in Ireland (86%), New Zealand (83%), Austria (81%), Australia (78%), Canada (77%), United Kingdom (66%), Slovakia (56%), Czech Republic (55%), Belgium, Finland and Norway (54%). In Germany, France, Netherlands, Spain and Mexico, cash payments, were 30-40% of total social assistance to families as of 2003, while they were about 25% in Japan and slightly more than 6% in the USA.

Payment for services is the principal method of social support to families in South Korea (100%), Mexico (69%), Denmark (59%), Spain (58%), Sweden (55%), Iceland and Italy (53%). In Austria, New Zealand, Canada and Ireland, payment for services represents 10-20% of support available to families.

Tax discounts are especially prominent in USA (49%), Japan (39%) and Germany (34%). In New Zealand, Austria, South Korea, Mexico, Denmark, Sweden, Iceland, Italy and Finland, tax discounts are a negligible part of social support.

Public spending on care of young children (in day nurseries, day time-stay families and centers for children up to 3 years) and on pre-school education (in kindergartens and day time-stay centers for children aged 3-6 years) are an important form of family support. This spending may be in the form of cash payments, service payments or tax discounts. On average in the OECD such spending was about 0.7% of GDP in 2003, varying between 0.1% in South Korea and 1.8% in Iceland. Education of young children receives more support in Iceland (1.2% of GDP), Finland and Denmark (1% in each of the two countries), while pre-school education is the focus in Hungary (0.8%), France, Denmark and Mexico (0.7%).

If we assume that public spending on education of young children (up to 3 years) is applicable to the total number of children in that age group, we find that per child spending in 2003 varied from USD 144 PPP in South Korea to 8009 in Denmark. Pre-school education spending per child varied from USD 2069 in Mexico to USD 7755 in the USA.

Socially funded public education for young children (up to 3 years) is more typical for such countries as Denmark, France, Finland, Iceland, Norway and Sweden, where spending for these purposes is greater than in other OECD countries. Lower spending up to 3 years is typical for Southern Europe, where home education of young children is dominant, while public education mainly starts when the child older than 3 years. Public spending on education of young children is usually lower when private methods of childcare and child education are predominant. In countries such as South Korea and Japan, households (families themselves) are the major source of payment for pre-school education as well.

Public child care and education ensure certain standards of child development and enable parents (mainly mothers) to be more active in the labor market and other spheres of social life.

Sources: Organization for Economic Co-Operation and Development – www.oecd.org
OECD Social and Welfare Statistics - www.oecd.org/statistics/social.
Social Expenditure Database - http://www.sourceoecd.org/database/socialexpenditure
OECD Family Database - www.oecd.org/els/social/family/database

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* Australia, Austria, Belgium, United Kingdom, Germany, Denmark, Ireland, Iceland, Spain, Italy, Canada, Korea, Mexico, Netherlands, New Zealand, Norway, Portugal, Slovakia, USA, Finland, France, Czech Republic, Sweden, Japan.

sure and, eventually, reduction of Russia's economic competitiveness and slowdown of economic growth.

- The main long-term problem of the Russian pension system is not now to make it deficit-free. Formulas that currently govern indexing of insurance and basic parts of labor pensions will ensure financial sustainability of the pension system, without adjustment of current financing principles. But the price of such sustainability is further decline of the substitution rate – the ratio between average labor pension and average salary. Unless the pension system is updated in a major way, it will not be possible to support an adequate quality of life for the elderly population and, therefore, to provide proper incentives for the working population.
- Improvement of the pension system will not resolve the problem of helplessness and loneliness in old age. Pensioners who live alone are a major risk group, but not primarily due to poverty: their main problems are lack of care provision and psychological deprivation. In a context of rapid ageing of the population, there need to be public and private programmes for provision of social services, home care and various leisure activities for pensioners, as well as community centers and up-to-date, well-equipped old people's homes. The challenge in face of an ageing society is radical reconstruction of the whole system for provision of care to the elderly , including creation of new and efficient social institutions.

The childcare market in Russia remains inadequately developed, with little differentiation between the services on offer. Even kindergarten services are unaffordable for some social strata, and terms and conditions of service provision do not always match existing needs. Families are incapable of compensating existing public policy failures and inadequate development of the social service market. The consequence is lack of proper child care, vulnerability and spread of social orphanhood. Pronatalist policy does not always mean the support of stronger parental responsibility, particularly when the emphasis is on financial incentives for raising fertility. Growing social orphanhood in Russia is a reality of recent years and a threat to the country's future social development.

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[1] Here and below, use is made of findings of the joint research project by CSD and the Institute for the Economy in Transition, published in Ekonomicheskaya Politika, No. 3, June 2008 (M. Dmitriev, S. Drobyshevsky, L. Mikhailov, T. Omelchuk, L. Sycheva. Can pensions be increased to 40% of salary?).

[2] M. Dmitriev, S. Drobyshevsky, L. Mikhailov, T. Omelchuk, L. Sycheva, Can pensions be increased to 40% of salary? "Ekonomicheskaya Politika" No. 3, June 2008.

[3] E.V. Savitskaya, Pre-school education for children: The economic aspect. Information bulletin. – Moscow: State University – Higher School of Economics, 2005.

[4] These services are here understood as assistance in infant care by any individuals who do not live in the respondent's household and are not child care professionals. Assistance from members of the same household (partner, other children or from any other members of the household) is not understood as "non-professional" infant care.

[5] According to the findings of a study by the State University – Higher School of Economics using FOM opinion poll reports from 2004, services of nannies and governors were in use by only 4% of Russian families [E.V. Savitskaya, Pre-school education for children: The economic aspect. Information bulletin. – Moscow: State University – Higher School of Economics, 2005.]. These nannies are predominantly distant relatives, neighbors and family acquaintances, whose services were treated in the PCMW study as services from non-professional individuals.

[6] Here and below, following strictly the logic of the question list, we include nannies in "formal services", although in Russia professional nannies (people who babysit as their major employment) are almost unknown. The problem is not lack of training opportunities, but lack of regulation or standards applicable to nanny services, or any specific forms of licensing or registration applicable to such activity. Organizations offering nanny services are only available in main cities. This is why most Russian nannies are informal workers (usually neighbors or acquaintances). But there were only 32 "professional" nannies in the sample, so they have no any significant impact on the analysis.

[7] Division into wealth & property groups used data on average annual per-capita household income (adjusted for interregional differences in the cost of living), as well as information on property owned by households. Correlation between the three groups in the total sample was about 20:70:10. When interpreting the findings it should be borne in mind that population groups, which are truly wealthy, are never captured by mass opinion polls; so the group of households, which, according to our own criterion, has "high" income levels would be better described as "above average" in a full cross-section of the Russian population.

[8] Income and social services: Inequality, vulnerability, poverty. Monograph by a group of authors / L.N. Ovcharova, ed.; The Independent Institute of Social Policy. Moscow: State University – Higher School of Economics, 2005.

[9] Esping-Andersen G. (ed.) (2002). Why We Need a New Welfare State? N.Y.: Oxford University Press.

[10] Neyer G. (2003). Family Policies and Low Fertility in Western Europe // MPIDR Working Paper, WP 2003-021, July. Rostock: Max Planck Institute for Demographic Research. P. 32.

Chapter 8

DEMOGRAPHIC CHALLENGES AND THE EDUCATION SYSTEM

Demographic processes have had major impact on the age structure of the Russian population and will continue to do so. Children, teenagers and young adults – the main recipients of services at all levels of the education system – are inevitably affected by these processes. Size of these age groups has been subject to large fluctuations in recent decades, although the overall trend has been towards decline. The wave-like development is likely to continue into the future, as shown in Figure 8.1.

It can be seen in Figure 8.1 that numbers of various age groups among the young population – the groups most heavily involved in education – have been changing in different ways and that these differences will continue to be observed.

These changes offer new opportunities, but also create new problems for the education system. We will discuss the opportunities and problems with respect to each level of education.

8.1. Pre-school education

Pre-school education has a number of specifics. First, unlike secondary education, it is not compulsory. Second, it is crucially important for further education and life career of the individual, since it serves to level out starting conditions for children from different social groups and different places. Third, pre-school education has two essentially different purposes: childcare and education (personal development). It is essential that pre-school education should be generally accessible, particularly for children of senior pre-school age.

Total population of children aged 1-6- has been growing since 2005, and the growth is expected to continue until 2018, though at insignificant rates. However, the pre-school education system has proved unprepared for these demographic changes: levels of involvement in education at youngest ages has ceased

Box 8.1. Russian education in the context of international Standart Classification of education (ISCED-97)

The Russian education system consists of: pre-school education, general secondary education (including primary, low and upper secondary), primary and secondary vocational, and higher education, as well as post-graduate education and school children supplementary education.

According to the International Standard Classification of Education (ISCED-97), secondary education includes – in addition to general secondary education as such, – Russian primary vocational education (PVE) and a certain part of secondary vocational education (SVE) (the first two years of study) in case students enter PVE and SVE programmes upon completion of low secondary education.

Russian secondary vocational and higher education programs are incorporated into tertiary education type B and tertiary education type A, respectively.

Russian primary vocational education, following completion of an upper secondary programme, is classified in ISCED-97 as post-secondary non-tertiary education.

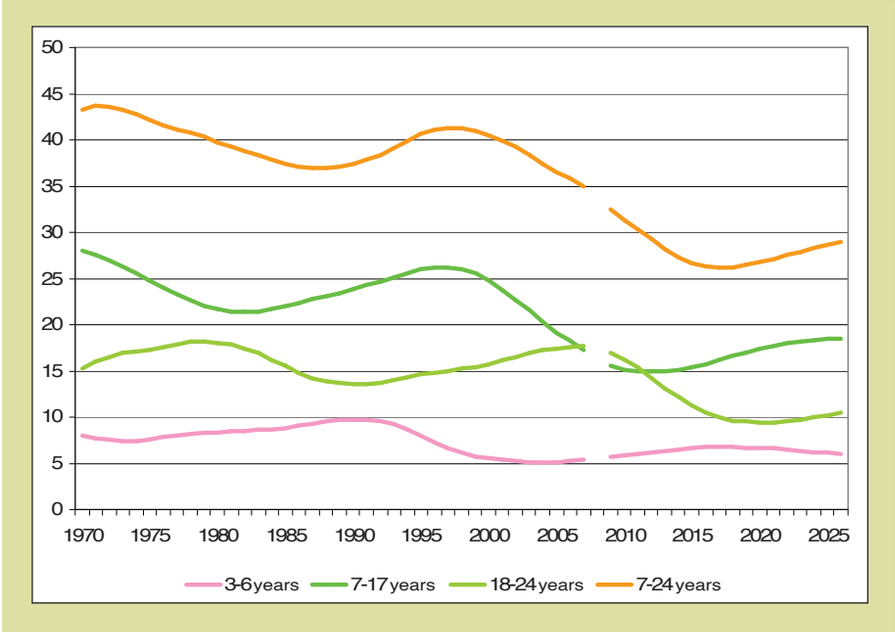

Figure 8.1. *Numbers of Russian children, teenagers and young adults (3-24 years), mln. people*

to grow and even declined to some extent since 2005 (Figure 8.2).

Declining reach of pre-school education is mainly due to simple excess of demand over supply. Kindergartens, particularly in large cities, are oversubscribed: the waiting list of children is growing, while relative capacities of the system are declining (Figure 8.3).

The problem is most acute in poor regions (Figure 8.4) – precisely where children have most need of help at early ages in order to level out starting conditions in the educational process.

This imbalance in Russia fully reflects global trends: involvement in pre-school education in developed countries is higher than in countries with average and (to an even greater extent) low development levels. Pre-school education is even compulsory in some developed countries.

As shown by studies[1], higher rates of employment in any region are correlated with greater involvement in pre-school education and greater need for its services. Despite current difficulties due to the crisis, which impede growth of employment rates, in the longer term there are reasons to expect increasingly severe shortage of human resources on the labor market, leading to lower unemployment rates and relatively lower share of the economically inactive population, at least in developing regions of the country. This will entail growth of demand for pre-school education at faster rates than growth of population of the relevant age group. So the challenge for the education system is to provide more places in pre-school institutions, to develop new forms and alternative organizational patterns for pre-school education (short-stay groups, pre-school institutions at schools and supplementary education institutions, home-based groups, etc.). Otherwise, involvement in pre-school education will decline further, reducing success in leveling out starting conditions in education and worsening the labor deficit.

Recent program documents of the Ministry of Education and Science have focused on provision of education to senior pre-school age children[2].

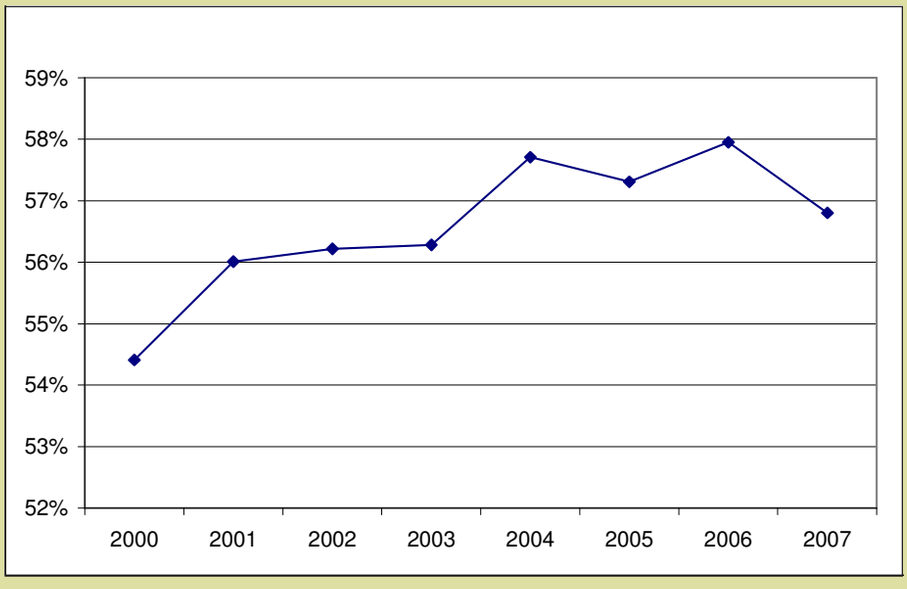

Figure 8.2. *Involvement of children aged 1-6 years in pre-school education*

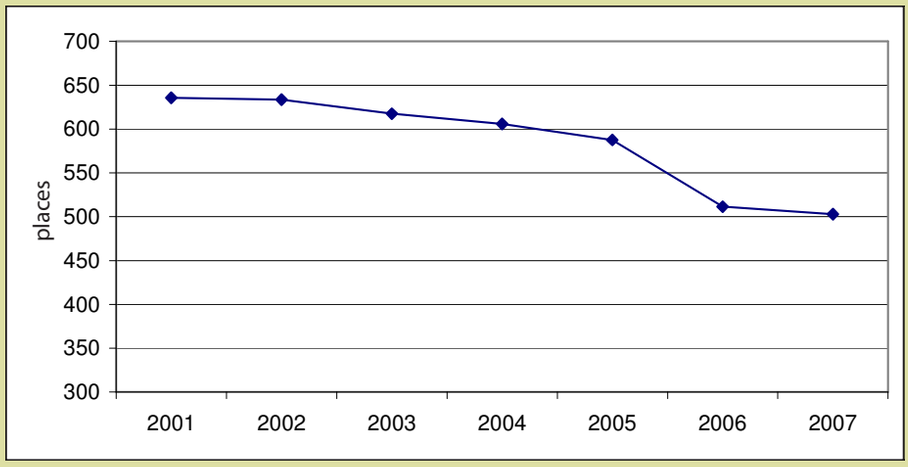

Figure 8.3. *Number of places available in pre-school education institutions per 1000 children aged 1-6*

The essential message is that total education periods should be extended by starting the educational process at an earlier age. This is in line with global trends and should help Russia to overcome its gap compared with developed countries in standard duration of education[3]. Development of senior pre-school education requires funding, new programmes for the purpose, etc. However, it is less costly than traditional pre-school education, because it can be implemented through classes of short duration, which do not require all the facilities needed to care for children in kindergartens. Such programs should help to level out starting conditions for children from different social groups and different locations. But mass implementation will requires creation of new educational forms and involvement of a broad range of organizations, from schools to supplementary education facilities.

8.2. General secondary education

The number of children of school age (7-17 years) grew from the start of the 1980s to a peak in the second half of the 1990s, after which it went into decline. The decline should last until the middle of the next decade, after which a new growth trend will begin, but on a smaller scale (Figure 8.1). At the low point, soon after 2010, children and teenagers of school age will be about 15 million, which will be more than 11 million (43%) less than in 1996-1997 and considerably below the previous minimum (just over 21 million, reported in 1982). Recovery in numbers will not be sufficient to raise the school-age population above 18 million by 2025.

What are the implications of these population trends for the system of general secondary education?

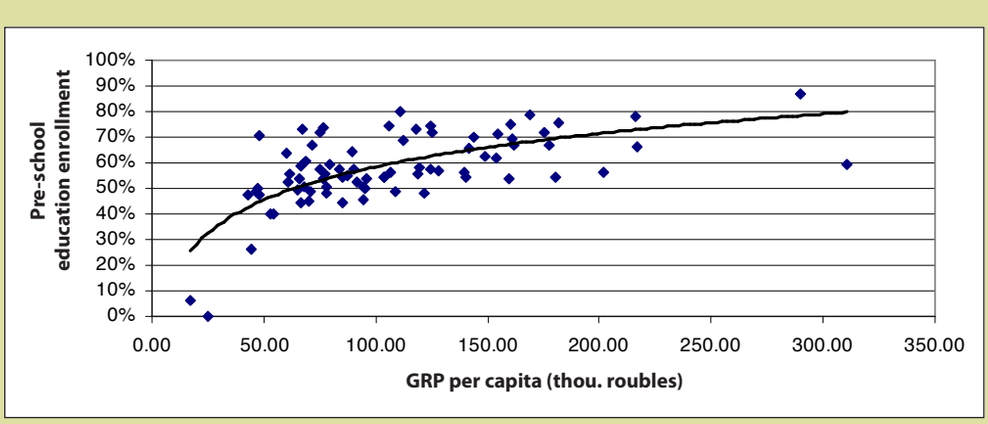

Figure 8.4. *Economic development levels by regions and rates of involvement in pre-school education*

Box 8.2. Enrollment in childcare institutions in OECD

Table 8.A. *Enrollment of children under 6 y.o. in pre-school institutions in OECD, 2004*

Country	Enrollment of children under 3 y.o.in day-stay centers and children of 3-6 y.o. in pre-school education. %				Average time spent in education by children aged 3-5 y.o.. years
	Less than 3 years	3 years	4 years	5 years	
Australia [1]	29	55	64.6	90.9	1.8
Austria	4.1	45.9	82.1	93.1	2.2
Belgium	38.5	99.3	99.9	99.7	3.1
Canada [2]	19	..	..	..	..
Czech Republic	3	68	91.2	96.7	2.6
Denmark [1]	61.7	81.8	93.4	93.9	2.7
Finland [3]	35	37.7	46.1	54.6	1.4
France [4]	26	100	100	100	3.2
Germany [2]	9	69.5	84.3	86.7	2.4
Greece [3]	7	..	57.2	84.1	1.4
Hungary	6.9	71	92.3	97.8	2.6
Iceland [3]	58.7	93.3	95.1	95.9	2.8
Ireland [5]	15	48	46.6	100	1.5
Italy [5]	6.3	98.7	100	100	3
Japan	15.2	67.3	95.2	96.6	2.6
South Korea [1]	19.9	59.5	66.4	88.7	0.9
Luxembourg [3]	14	37.9	83.5	96.9	2.2
Mexico [3]	3	22.1	66.4	95.9	1.8
Netherlands	29.5	32.3	74	98.4	1.7
New Zealand	32.1	82.1	95.1	100	2.8
Norway [3]	43.7	79.4	86.9	89	2.6
Poland [2]	2	26.1	35.7	46.2	1.1
Portugal	23.5	63.9	79.9	90.2	2.3
Slovakia [3]	17.7	60.3	71.7	84.7	2.2
Spain	20.7	95.9	100	100	3.1
Sweden	39.5	82.5	87.7	89.7	2.6
Switzerland	..	7.2	34.4	89.7	1.3
Turkey	..	1.7	3.4	26.2	0.3
United Kingdom	25.8	50.2	92	98.2	2.4
USA	29.5	41.8	64.1	77	1.8

[1] - 2005;
[2] - 2001;
[3] - 2003;
[4] - 2002;
[5] - 2000

During the 2003/2004 school year, public care/education provision (day-stay centers, officially registered nannies) covered 23% of children under 3 years old in OECD countries. This type of provision for children aged up to 3 years is most widely used in Denmark and Iceland (about 60% of children under 3), Norway (44%), Sweden (40%), USA, Finland and Belgium (34-36%). However, the share is only 2% in Poland and 3% in the Czech Republic and Mexico.

Children aged 3-6 y.o. are more widely involved in public forms of pre-school education. The average OECD rate was 74%, varying from 11% in Turkey to 100% in Belgium, Italy and France.

Sources:
Organization for Economic Co-Operation and Development – www.oecd.org
OECD Social and Welfare Statistics - www.oecd.org/statistics/social.
Social Expenditure Database - http://www.sourceoecd.org/database/socialexpenditure
OECD Family Database - www.oecd.org/els/social/family/database

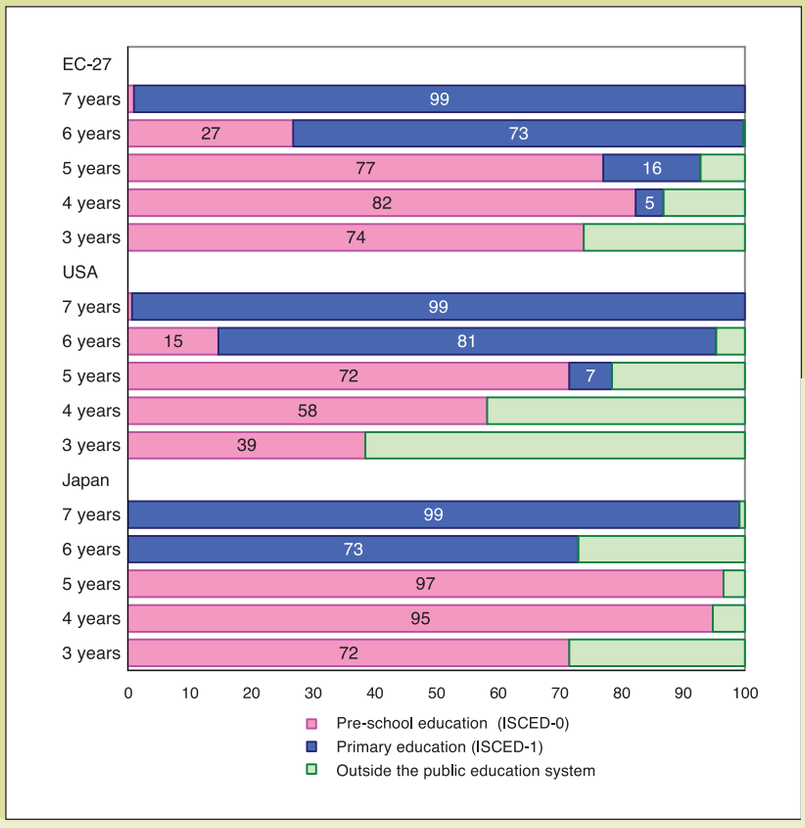

Figure 8.A. *Involvement of children aged 3-7 years in education programmes in European Union, USA and Japan, 2006, % of total population in relevant age groups*

Source:
Eurostat - http://europa.eu.int/comm/eurostat/
Eurostat Database educ_ipart extracted 26 September, 2008.

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Involvement in secondary education in Russia is near to maximal: nearly everyone, who can, continues their education beyond 9 school years, either by staying on at school, or by enrolling at primary or secondary vocational education institutions. This is the case for 97% of teenagers (Figure 8.5), representing one of the highest rates in the world.

So numbers of those in education is almost identical to population in the relevant age groups, and there is almost no scope for greater involvement in school education. There are no reasons to expect significant increase of school enrollment through immigration[4], since forecasts predict that the share of school-age migrants will not exceed one percent of total children of school age in Russia.

Current rapid decline of the child population and, hence, of student numbers, entails decline, although at a slower pace, in resource efficiency indicators, such as use of class capacity, average number of children per school, and student-teacher ratio (Figure 8.6). In the last six years, the population of children and teenagers has dwindled by 29%, average school enrollment by 21%, use of class capacity by 11% and number of pupils per teacher by 16%.

It should be noted that Russia has a major lag compared with OECD countries by main measures of resource efficiency in education. In 2006, average class size in Russia was 18.4 individuals and there were 9.9 students per teacher, as compared with 23.8 and 13.2, respectively, in OECD. The lag could be partly due to population density or share of rural population and under-development of the road system, but Russia is also behind countries with similar conditions (Canada, Australia and Brazil).

Ongoing demographic processes will lead to further decline of class sizes, average number of children per school, the student/teacher ratio and, generally, spending efficiency in education. Much has already been done in recent years to optimize the network of education institutions, as a result of which the efficiency measures listed above have declined more slowly than the population of schoolchildren (Figure 8.6). This suggests that resources for further cuts in the number of schools and teachers are limited and raises doubts about eventual success of school enlargement, planned as part of the "Education" National Project.

Lower secondary education enrollment and increase of education spending, planned by the Government in coming years and into the future[5], will raise spending per student. Government funding of secondary education in Russia is unacceptably low at present.

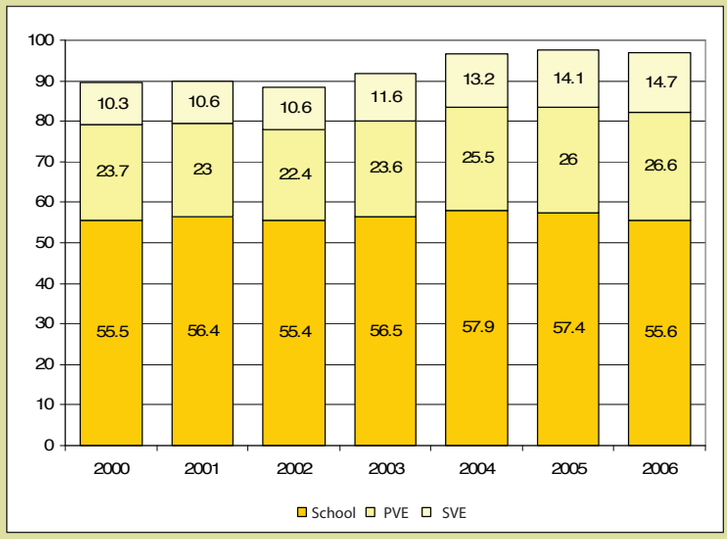

Figure 8.5. *Enrollment in upper secondary education in Russia, %*

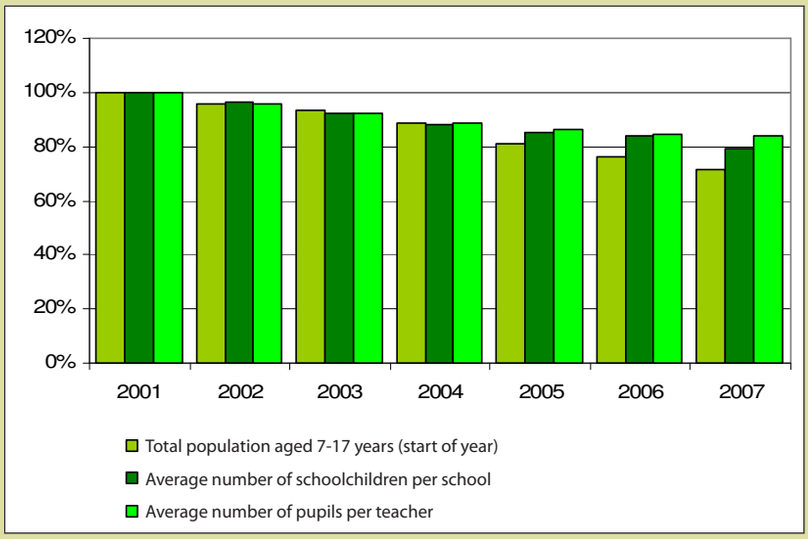

Figure 8.6. *Changes in school-age population, average school enrollment and pupil/teacher ratio in 2001-2007*

In 2004 (the most recent year, for which data for foreign countries are available) Russian budget spending per secondary school student was USD 1600 at purchasing power parity, compared with USD 6700 in OECD. Russian government spending per student has since doubled (in comparable terms), but remains far behind levels in developed countries. Further reduction in numbers of schoolchildren and increase of government spending will reduce the gap in spending per student between Russian and developed countries. But concurrent decline in average class size and number of pupils per teacher will mean lower spending efficiency and relative increase of spending needs, tending to undermine impact of the overall spending increases.

As well as threatening a reduction in spending efficiency, lower numbers of school children raise issues concerning teachers. First, there will be a need for retraining of teachers to help them work with smaller classes. The teacher training system today is geared to full-size pupil groups (25 individuals). Teaching smaller groups of 7-15 pupils offers new opportunities, but also calls for different approaches. Second, there will be a growing issue of social security for teachers who become redundant due to the dwindling population of schoolchildren. This could be also be another obstacle to renewal of teaching staff, which is among top-priority tasks.

In the context of demographic recession, comprehensive transition (now underway) to per capita funding of secondary education could lead to intense competition between establishments to keep or attract young people graduating from basic secondary education. Earlier, schools were quite happy to part with some of their students at the end of the compulsory nine-year course, and even carried out screening for the purpose. But per capita funding will make schools do all they can to keep pupils for additional years in order to maximize their funding.

At present more than half of school students (56%) elect to stay on at school after completing low secondary education, over a quarter (29%) enter an primary vocational institutions facility and about one in six (15%) enters a secondary vocational institutions. So nearly all of them stay in education. About 70% of these students – those, who stay at school or enter secondary vocational institutions, – are oriented to further education. The battlefield is the one third of low secondary graduates who enroll on primary vocational programmes after 9th grade . These teenagers are generally less academic and often come from low-income and/or socially under-privileged groups. If they stayed at school for additional years they would reduce average quality levels, forcing teachers to set lower standards, with inevitable negative effect on the quality of education received by all pupils. This is amply proven by results of young people from general education schools and PVEs in the Unified State Examination (USE). The situation may be further aggravated since 11-year education became compulsory (starting from the 2007-2008 academic year)[6].

Specific models for reform of primary vocational education are now under consideration. The models imply that all teenagers will complete their upper secondary education at schools, while PVEs will be responsible for vocational training only.

So the secondary education system faces several groups of challenges associated with continuing decline in school-age population groups:

- decline in class sizes and resulting need for new teaching techniques appropriate to small groups (and related teacher training);
- social tensions due to large-scale redundancy among teachers;
- associated obstacles to priority renewal of teaching personnel;
- decline in quality of senior school education, as education institutions try to counter lower school enrollments by keeping less able and less motivated pupils for extra years.

However, as shown in Figure 8.1, the stage of decline in population of school age is now nearly over, and will be followed by modest growth, which will serve to mitigate the challenges. Growth in numbers of school-age children and teenagers after 2013 will help to improve efficiency of education spending and give more room for maneuver in education reform.

8.3. Tertiary education

Consequences of lower student enrollment are even greater in tertiary education and have many aspects.

Figure 8.1 shows that the wave of population decline is now shifting from school age groups to groups most actively involved in tertiary education. While decline in population of school age will stop 3-4 years from now, decline in tertiary education age groups is only beginning, and will continue until 2020. At the low point, numbers of young people at tertiary education ages will be almost twice fewer than in 2007.

Rates of involvement in tertiary education in Russia are currently among the highest in the world (Figure 8.7).

There is therefore no reason to expect that student numbers in tertiary education will decline more slowly than total population in respective age groups,

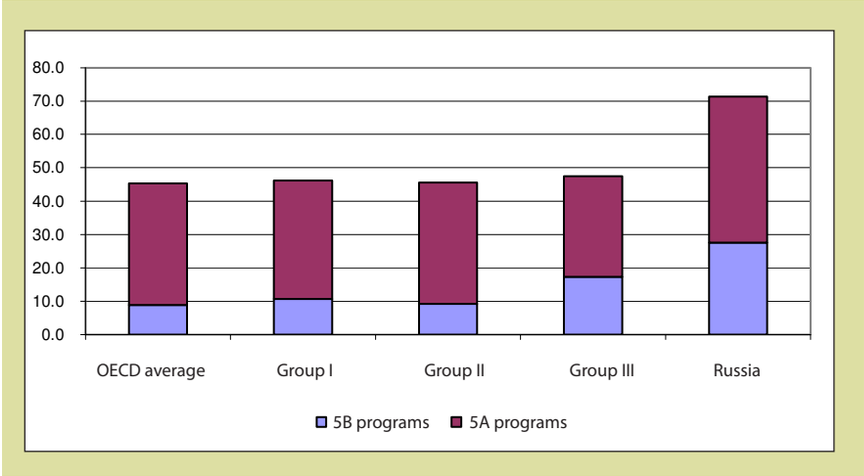

Figure 8.7. *Involvement in tertiary education in Russia and worldwide, by groups of countries*[7]

and decline by nearly two times in demand from young people for tertiary education in the next 15 years looks probable.

Surprisingly, halving of the number of young professionals graduating from secondary and higher education institutions will not lead to a deficit of professional human resources. As stated above, education levels among the Russian population are among the highest in the world: the share of people with tertiary education is 54%[8]. This has led to a mass phenomenon of "crowding-out", where people with diplomas and certificates take jobs, which do not require higher (and sometimes even secondary) vocational education, because there are not enough highly qualified jobs to go round. Some negative effect from fall in graduation rates can be compensated by updating and development of adult learning system (improvement of qualifications and re-training).

The main threats for the tertiary education sector are from "shrinkage" of the sector itself.

The number of places available for first-year students at higher education institutions currently exceeds numbers of young people completing school education by 25%. So there is likely to be increasingly intense competition between education institutions, between college programmes (full-time and part-time) and for each applicant, since attraction of students means maintenance of funding, which may sometimes be a question of survival for the institution. This may lead to several consequences:

• reduction in numbers of higher education institutions (HEIs) and their polarization. Smaller student population could force closure of some HEIs or decline of their enrollment rates to levels, at which funding becomes completely inefficient: HEIs will be unable to pay salaries to their full-time teaching staff; more mobile professors and teachers will have to quit the education system, and those who remain will be unable to provide education of sufficient scope and quality. HEIs will probably be divided between large educational centres, which have won the competitive battle, and all others, where material provision, human resources and education quality will lag further and further behind the former group. It is also possible that small HEIs will be partially supplanted by local branches of more successful HEIs.

• decline of applicant numbers will, inevitably, entail decline of entry requirements, which have already been falling in recent years as HEIs seek to enlarge the share of students who enroll on fee-paying conditions. This is proved by current enrollment trends. The share of higher education institutions new entrants graduated from primary vocational programmes has remained steady at 5% despite the fact that HEI intakes have been increasing and number of PVE graduates has stayed almost unchanged. Today one in 20 PVE graduates enters an HEI in the same year he/she completes a PVE course. That share was one in 30 a few years ago.

It is also reasonable to expect that secondary vocational education will shrink more rapidly than higher education, since students of secondary vocational institutions (SVIs), who were previously unable to enter institutes or universities (HEIs), will have more chances of entering HEIs due to less rigid eligibility standards. One other factor will increase the threat to survival of SVIs. HEIs are usually financed from the federal budget, while SVIs are funded from regional budgets, so regions with tight budgets (the majority of regions) will be keen to take the opportunity of closing SVIs, shifting more tertiary education expenses onto the federal budget. This is already happening: total population aged 17 years (the typical age for entering an HEI) rose by 4% in 2000-2005, but first-year HEI enrollment grew by 21% in the period and first-year SVI enrollment fell by 3% (Figure 8.8).

One other resource for enlargement of HEI student enrollment consists of various distance-learning students (correspondence courses, correspondences courses with partial attendance, etc.). The structure of tertiary student enrollment in Russia, as per methods of educational provision, is currently very different from what is typical worldwide (Figure 8.9).

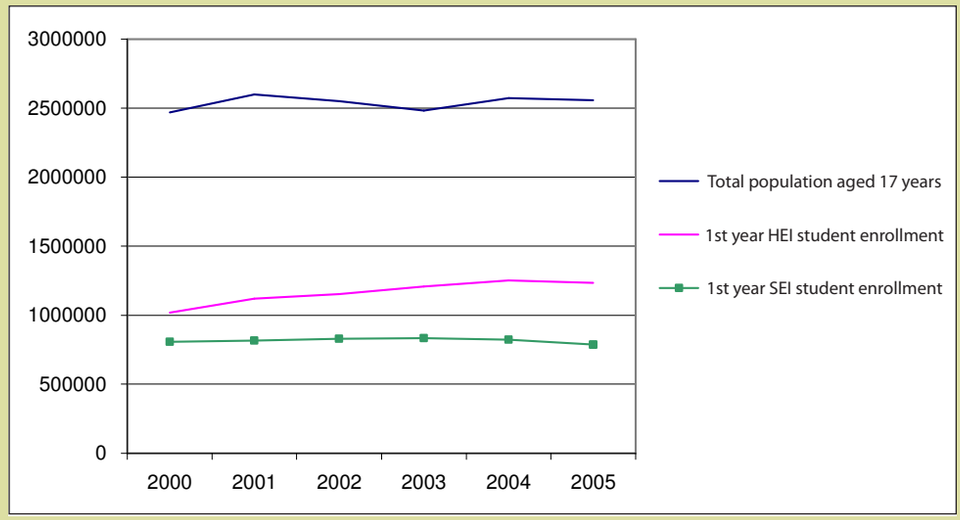

Figure 8.8. *Total population in main age groups for enrollment at higher and secondary specialized education institutions, and 1st year student enrollment in 2000-2005*

So almost two-fold decline in population age groups which are typical recipients of secondary vocational and higher education, presents the following problems:

• many HEIs will find it hard to survive, the HEI system will be polarized, and there will be a growing division between establishments, which are more or less successful in coping with lower student enrollments and lower funding, and other establishments, which be increasingly under-resourced and incapable of offering high-quality education;

• increasingly rapid shrinkage of the secondary vocational education system, which will be the loser in competition with HEIs for applicants.

Most people in Russia associate their hopes for their children's future with higher education. But, at the same time, very few of them pay much attention to its quality. Nowadays, an HEI diploma proves a certain level of socialization more than it proves a level of professional training. Increasingly lenient eligibility requirements at HEIs will increase the share of enrollments of young people with lower aptitude:

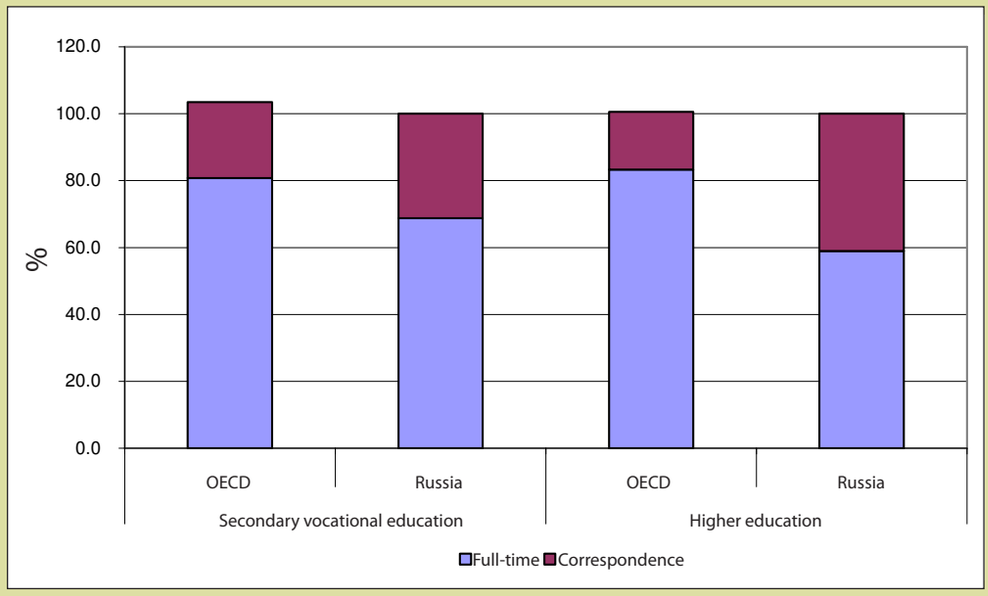

Figure 8.9. *Tertiary education student enrollment, by methods of education provision*

those, who have completed their secondary education at schools and primary vocational institutions (whose curricula are designed mostly for direct job market entry and not for further education); and those signing up for correspondence courses, which involve less rigid entry requirements and less rigorous standards of education. Lower quality of new students will entail inferior graduate quality: more time will be required to fill gaps in the knowledge of the new students, who will take more time to master the curriculum (if they are able to master it at all).

Efforts by HEIs to maintain enrollment levels will mean that numbers of students entering HEIs will fall more slowly than total population in the relevant age groups. So numbers of people entering the job market at ages 17-24 (the typical age for tertiary education) will decline faster than total population of these ages.

The problem needs to be tackled by rapid instatement of two-tier higher education[9], stricter HEI quality control applicable to curriculum licensing and accreditation (particularly for second-tier, i.e. master's level, curricula) and more rigid eligibility requirements on applicants for master-degree studies.

Another valuable survival strategy for HEIs is development of short-term educational programs for training, re-training and improvement of qualifications. Such programs would match the principle of continuous education, which is increasingly prized nowadays.

Accessibility of professional education, particularly higher education, varies greatly between regions, as can be seen by considering the number of places available in different regions to first-year HEI students and numbers of young people who complete upper secondary education in those regions. The average national ratio is 1.25, but the ratio varies from 0.4 in the Republic of Tyva to 2.5 in St. Petersburg and 3.55 in Moscow (Figure 8.10).

This unevenness in location of HEIs inevitably leads to high rates of student migration rates: young people seeking higher education have to leave home for large university centers.

More than 20% of all student places are concentrated in the two Russian capital cities, so a large share of young people completing school education have to go to Moscow or St. Petersburg to obtain higher education. More than 50% of students are enrolled on a fee-paying basis, and fees payable in the capital cities are high compared with incomes[10]: average per-semester fees at government HEIs are 25,300 roubles in Moscow and 20,900 roubles in St. Petersburg (respectively 2.5 and 1.6 times more than the national average for HEI fees). And living expenses in the two cities are much higher than the Russian average: the minimum subsistence level is 1.6 times more than the Russian average in Moscow and 1.4 times more in St. Petersburg. Since socio-economic differentiation between regions is growing, students will find it increasingly hard to afford studies at HEIs away from home.

Lower student migration will be beneficial for HEI survival in less economically developed regions. That is likely to mean that polarization of higher educa-

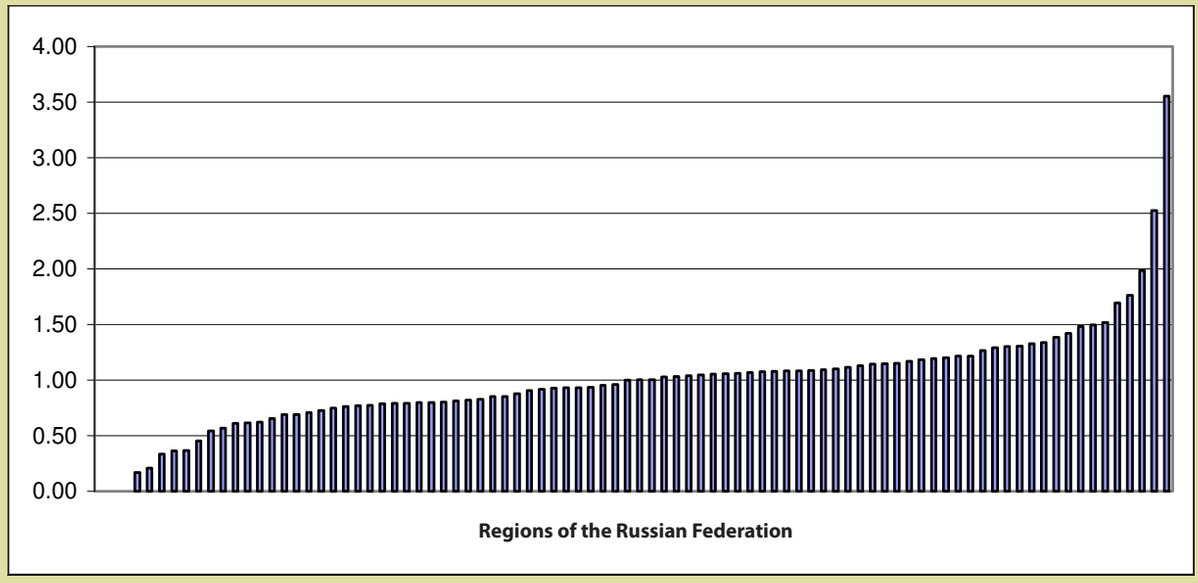

Figure 8.10. *Relation between number of places on first-year HEI courses and numbers of school graduates, by Russian regions*

tion institutions, discussed above, will have a clear geographical aspect: there will be a growing gap between more powerful HEIs in traditional university centers and HEIs in economically backward regions. Actual education standards attested by diplomas from different HEIs are already very dissimilar, and the dissimilarity will increase. So Russia's educational space will no longer be "unified" – at least, so far as higher education is concerned.

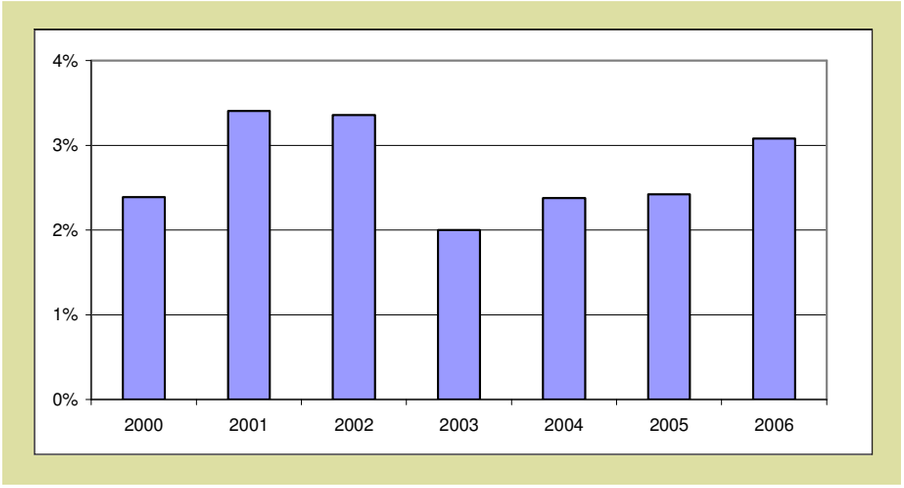

Figure 8.11. *Share of individuals enrolled at HEIs for second higher education, as share of total HEI student enrollment, %*

There are two ways of addressing this problem:

- first, promotion of distance education (correspondence courses) using new technologies to make its quality less inferior to full-time education. It would be desirable to unify the assessment system for remote students and full-time students.
- second, development of vocational certification based on unified standards within a national framework.

8.4. Life-cycle changes and continuous education

Current demographic processes in Russia are dominated by ageing of human resources: the ratio between younger and older working-age groups is shifting in favor of the latter. At the same time, rapid progress in science and engineering means that knowledge acquired in student years becomes quickly outdated. So the new age structure means that the share of people with outdated knowledge is growing. The best response to this challenge is development of a lifelong learning concept, expanding adult education and training system.

Russia is not the only country, which must cope with a growing share of older people in the working population and resulting obsolescence of knowledge and skills. The issue is also urgent in Europe, and measures are being taken to address it, by creation of a supplementary education system. In OECD, during 40 years of employment (from 25 to 64 years of age), each individual obtains on average 389 hours of education, of which 210 hours relate to low general education curricula, 371 hours to upper secondary and primary vocational education curricula, and 669 to tertiary education curricula.

Regrettably, there are no reliable data on adult vocational education in Russia, except data on some non-profit sectors: qualification improvement and retraining for governmental officials, military reservists and education professionals, as well as re-training for the unemployed (organized by the government employment service). However, some indirect data give reason to suppose that actual development of adult education is not happening as quickly as it needs to. The share of individuals receiving a second higher education is almost unchanged (Figure 8.11) and, although there is some growth in numbers of unemployed individuals who undergo re-training and improvement of qualifications on referrals by employment services, the share of such individuals in total unemployed is too small, at 0.2-0.4%.

Indirect data are the only way of assessing levels of professional re-training and improvement of qualifications in the real economy. The share of education expenses in total labor force expenses borne by employees is currently about 0.03%, and has remained virtually unchanged throughout the last five years. There are significant variations between sectors, but this extremely low level seems representative of attitudes by employers towards improvement of their employees' qualifications.

The adult education system clearly needs major extension, and there is scope for achieving this thanks to large redundant capacity at HEIs and SVIs. Survival strategy will force higher and secondary vocational education institutions to accelerate development of short-term educational curricula for the adult population, in order to partially compensate financial losses due to lower enrollment of students for traditional curricula.

8.5. Demographic changes and education export

Export of educational services could be a development and, in some cases, a survival strategy for tertiary education establishments faced with much lower domestic demand due to population decline.

However, although larger student inflows to Russia are envisaged in a number of planning and program documents[11], analysis of the current situation suggests that export of educational services is not an efficient solution to current problems for the system at large, although some HEIs will probably prove successful in this direction.

The share of foreign students at Russian HEIs is currently 1.3%, which is a low level by international standards. Russia is far behind OECD by this indicator (median share of foreign students in OECD higher education is 8%) and is on the same level as several countries with under-developed economies (Figure 8.12).

Only a few years ago, the share of foreign students in Russia was supported by inflows from ex-Soviet Union countries; but the share of students from such countries is much lower today at just over half (55%) of all foreign students (Figure 8.13).

One key obstacle to growth of foreign students is difficulty mastering Russian, which is needed for study purposes. This is not a uniquely Russian problem: the language barrier is also restrictive in Japan, where the share of foreign students is only 2.5%, despite an advanced system of higher education. However, unlike Japan, Russia had, until recently, the benefit of an extensive Russian-speaking zone beyond its borders. But Russian is now less widely spoken than previously in countries, which were formerly part of the USSR (in particular, it is not studied at schools on a mass scale) and the language barrier, which 10-15 years ago was no problem for anybody coming from these countries to study in Russia, is now nearly as much of a problems as it is for students from outside the ex-USSR.

Apart from the language barrier, there is evidence of declining confidence in quality of Russian higher education. This is expressed in deteriorating positions held by leading Russian HEIs in global ratings[12]. An example from Kazakhstan is also instructive. Since 2005, Kazakhstan has been operating a grant programme, by which 3000 young school leavers each year are awarded funds to study in foreign HEIs and for payment of living expenses abroad. This instantly led to a fall in the number of students coming from Kazakhstan to study in Russia from 19,000 in the 2004-2005 academic year to 17,000 in 2005-2006, including decline of full-time students from 14,500 to 12,500. So students in Kazakhstan, having received the funds and, hence, the opportunity to make their own choice, chose higher education in countries other than Russia, even though Russia offers no language barrier, since Kazakhstan remains a largely Russian-speaking country.

Two more reasons for lower flows of foreign students to Russia should also be mentioned.

First, there has been rapid growth of tuition fees at Russian HEIs, particularly the most prestigious of them. Today, average tuition fees at government HEIs in Russia is one third higher than the average in OECD countries (it should be noted that government HEIs in many countries do not charge fees)[13]. Costs are augmented by high living costs in large cities, where main universities are located.

Second, living conditions and the human environment in Russia leave much to be desired. Suffice it to say that foreign students have set up a "foreign stu-

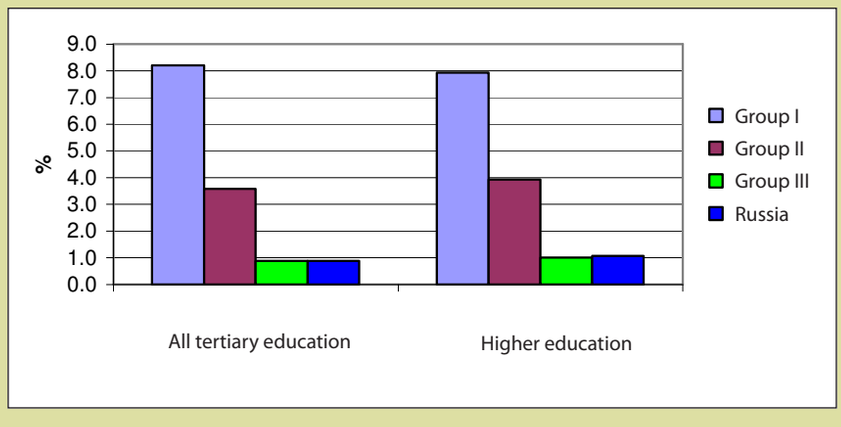

Figure 8.12. *Share of foreign students in total students (by country groups)*

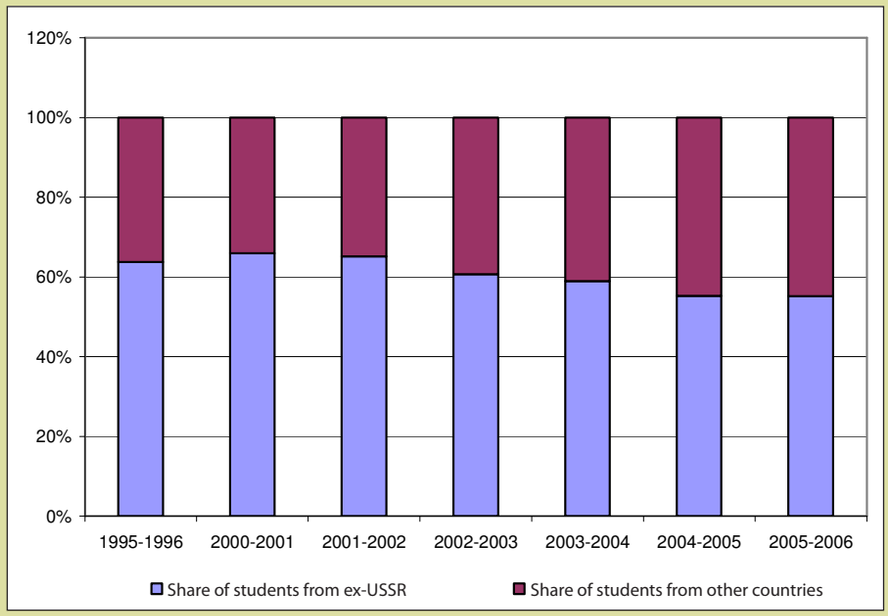

Figure 8.13. *Foreign students in the Russian Federation, by citizenship*

dent protection society" in Russia, that the number of attacks on foreigners is growing annually, and the number of grievous offenses (including murders) is growing even more rapidly.

There has been a slight growth in the number of foreign students in Russia in absolute terms over the last five years, but their share in total students at Russian HEIs has been declining. In view of the factors listed above, there is little reason to expect a major upturn in coming years.

By contrast, the share of Russian students in OECD HEIs is now at 2%, following consistent growth (by 10% annually) over the last 5 years. A total of 26,500 Russian citizens are studying at OECD HEIs today, while the number of foreign students in Russia is 78,000. However, the positive "balance of payments" in export of educational services is tending to decline and will continue to do so as the price of higher education in Russia grows..

8.6. Education as an adaptation resource for migrants

One of the main challenges arising from Russia's demographic situation today and in the future is inflow of migrants, who come from social and cultural environments dissimilar to those, in which they must live and work in Russia. This is most applicable to migration from abroad, but some similar problems arise respecting interregional migration inside Russia, particularly migration flows from the Northern Caucasus.

Education has a large role to play in integration of such migrants to the Russian social environment.

The scale of immigration is very different in different regions of Russia (as are most socio-economic parameters), and biggest challenges will be faced by the most economically advanced regions, which will be the principal recipients of migration. The tasks are of three kinds.

In secondary education, the challenge is to teach Russian language and ensure that education obtained by children and teenagers from migrant families matches generally accepted standards. This task is linked with socialization of migrant children and their further integration into socio-economic life.

Vocational education will become increasingly important for migrants as job vacancies requiring few skills (now the main source of migrant employments) become more scarce.

The third task, not fully educational in nature, relates to migrants, but also to the changing demographic situation. Recent years have seen an increase in ethnic intolerance among teenagers and young people and, as mentioned above, crimes (particularly grievous crimes) directed at migrants are increasingly common. So teaching in Russian schools of tolerance and ability live in a multi-ethnic (and multi-confessional) society is particularly important.

The education system thus faces a new and challenging socio-economic task of helping immigrants and their children to adapt, as well as improving standards of education for adults and providing them with required professional training.

* * * * *

Demographic processes in Russia will exercise powerful effects on the education system in the near future, creating a set of new problems and challenges.

Specifically, population age groups, which are typical recipients of secondary and higher education, will almost halve in size and there will be an intensification of migration processes.

The toughest challenges will be faced by tertiary (secondary vocational and higher) education.

The collapse of population numbers over the coming 10 years in the age group making greatest use of tertiary education (17-22 years) will reduce numbers of HEIs, increase their polarization, and induce competition between them for students. The competition will not only be between HEIs, but also between secondary vocational and higher education institutions and between full-time and distance learning departments within HEIs.

The probable outcomes are:

- shrinkage of the secondary vocational education sector more rapidly than the higher education sector;
- decline in quality of education and professional training available due to less strict eligibility requirements for applicants.

There is no reason to expect large inflow of students from abroad to boost enrollments, since foreigners at Russian HEIs are little more than 1% of total student population, and their share is tending to decrease further.

Decline in numbers of users of educational services in general secondary and the primary vocational education system will end soon: by 2013 the school-age population will be 13% less than in 2007, and modest growth is expected thereafter. But most of the recent decline will not be reversed and the education system will have to deal with lower efficiency of education spending (due to fewer school children per school and per class), as well as problems of redundancy among teachers. The latter problem may jeopardize renewal of teaching staff, envisaged by the "Education" National Program.

Ongoing migration processes (arrivals from the ex-USSR and more intensive internal migration flows from less to more economically developed regions) challenge the education system to provide support for integration of migrants and their children to Russian society, and to ensure that Russians are more tolerant of people from different ethnic groups, with distinct culture and religion.

Shrinkage of the able-bodied population and the growing share of older people in the population of working age are making it more important to develop and extend the adult education and training system. The task of this system is to make the knowledge and skills of older employees match requirements of today's economy, to improve qualification for migrants, and to facilitate access to the job market for a part of the economically inactive population.

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[1] I. Seliverstova, "Involvement of children in pre-school education: Levels, interregional differentiation and its causes", Voprosy Obrazovania, No. 3, 2008.

[2] "Important Tasks for Today's Education Model", in a supplement to Letter No. 03-946 (May 8, 2008) of the Department for Government Policy and Normative and Legal Regulation in the Education Sphere (part of the Ministry of Education and Science), entitled: "On recommendations for teachers' meetings held in August", http://www.mon.gov.ru/files/materials/4674/avgust08.doc.

[3] Education in OECD lasts 16.7 years on average, of which the 13.3 years in secondary education. The respective durations in Russia are 14.3 and 10.4 years (Education Counts. World Educational Indicators – 2007, UNESCO Institute of Statistics. Montreal 2007).

[4] Issues of migration flows and their effects on education are discussed in the next section.

[5] "Important Tasks of Today's Education Model" (Appendix to Letter No 03-946 of the Ministry of Education and Science (May 8, 2008), entitled: "On recommendations for teachers' meetings held in August", http://www.mon.gov.ru/main/4837), Russian Socio-Economic Development Program up to 2020 (http://www.economy.gov.ru/wps/wcm/connect/economylib/mert/welcome/economy/macroeconomy/administmanagementdirect/doc1185283411781).

[6] Federal Law No. 194 (July 21, 2007), "On amendments to laws of the Russian Federation connected with introduction of compulsory general education".

[7] To simplify data presentation and analysis, here and below all comparator countries are sub-divided into three groups: developed countries, where per capita GDP is more than USD 25,000; countries with average development, where per capita GDP is from USD 10,000 to 25,000; and poorly developed countries, where per capita GDP is under USD 10,000.

[8] Russia is ahead of all other countries by this indicator, and is only surpassed by Norway, Canada, USA and Israel by share of population with higher education (tertiary education type A, ICSED-97).

[9] Transition to a two-tier education system is envisaged in Federal Law No. 232 (October 24, 2007), "On modifications to legislation of the Russian Federation (associated with creation of tiers in higher vocational education)".

[10] Average fees payable per semester in Moscow and St. Petersburg are 18.7% and 15.5%, respectively, of average Russian per capita income (calculated semi-annually). Ratio of fees payable for education at government HEIs to per capita GDP is 23% in Russia and 6% in OECD.

[11] The Federal Program for Development of Education, Ministry of Education Budget Report, Draft Version of the Concept for Socio-Economic Development of Russia up to 2020, Draft Version of Government Program, "Education as the Basis for an Innovative Economy (2009 – 2012)", "Today's Education Model", etc.

[12] Certainly, the ratings can be challenged (as they have been by V. Sadovnichy, the Rector of Moscow State University) and not without grounds. But they remain a yardstick, which potential students use when making their decisions.

[13] It is true that fees payable for education in Russian non-government HEIs are twice lower than in non-government OECD HEIs; however, most Russian students and nearly all foreigners study at government HEIs.

Chapter 9

DEMOGRAPHIC CHALLENGES AND THE HEALTH SYSTEM

9.1. Health and demography in Russia today

The Russian health system faces a number of challenges from socio-demographic changes, which are happening now and will continue to unfold in coming decades. The system has already shown that it is far from prepared to meet these challenges.

Chances of reducing morbidity and incapacity rates are undermined by large-scale accumulation of adverse changes in the public health system, unsatisfactory development of social security, inadequate prevention and cure facilities, and inability of most people to afford highly efficacious drugs. Morbidity is on the increase, led by social and occupational health defects, and the share of grave diseases in far-advanced stages is also on the rise. Despite some improvement of the birth rate, female reproductive health and neonatal health remain an acute problem. In 2004, about 78% of women, who completed their pregnancy, suffered various pathologies prior to or during pregnancy (anemia, late toxicosis, kidney diseases, circulatory diseases, etc.), and each woman was affected by 1-2 of these disorders on average. Gynecological morbidity is growing. Reproductive potential and reproductive health are negatively affected by the high abortion rate and inadequate contraceptive culture.

Current and expected demographic changes, particularly ageing of the population and migration, further complicate what is already a difficult situation. In-depth analysis is required of the relationship between high rates of social disease and various trends in Russian society: growing inequality, specifics of regional development, and ongoing territorial re-distribution of Russia's population.

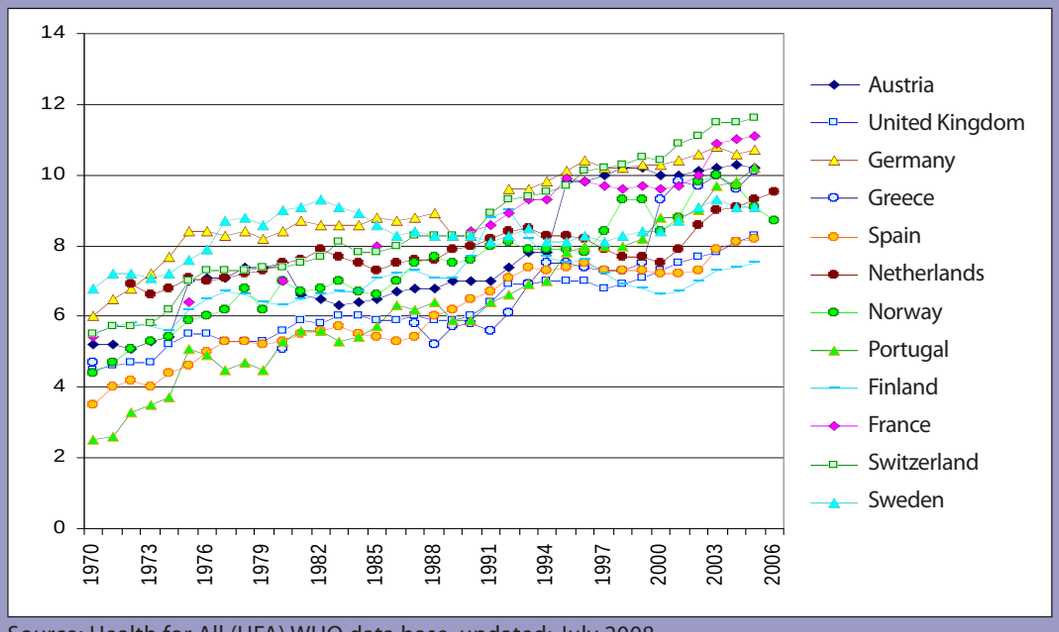
For example, incidence of tuberculosis (measured by first-time cases) is declining in federal districts, which are relatively "tuberculosis safe", but rising in places, which were already more seriously affected, notably in the Far East and Siberia. These regions, with their severe climate, marginalized populations and intensive migration processes, place particularly high demands on the health system, and ability of the system to improve the situation has proved very limited up to now.

HIV/AIDS morbidity rates show reverse dependence on economic development levels of regions: the immune deficiency virus is most widespread in wealthy regions, particularly in natural resource producing areas with underdeveloped social infrastructure. This is due to high rates of drug addiction, but sexual transmission of the disease is also on the increase.

Clearly, Russia's socio-economic reform programme needs to give much emphasis to maintenance and improvement of public health.

9.2. Are reforms of the Russian health system equal to the demographic challenges?

Health reforms in the post-Soviet period have been focused on issues of funding: both ensuring that funding is adequate and that it is more rationally used. There has to be enough money to cover all pub-



Source: Health for All (HFA) WHO data base, updated: July 2008

Figure 9.1. *Changes in total health care spending in some European countries, % of GDP, 1970-2005*

lic spending for provision of medical care to the general public. The guiding concept of reform has been more efficient use of funding through changeover from spending management to result management. So fund allocation and spending of funds are to be linked with clearly defined objectives and accurate measurement of results.

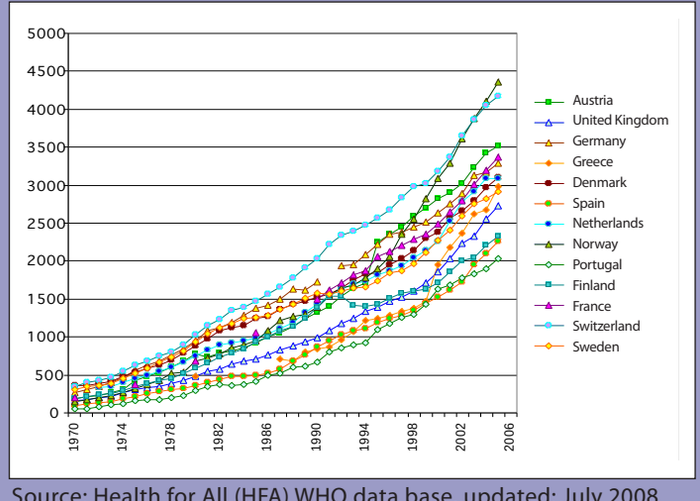
The "Concept for Development of Health Care and Medical Science in the Russian Federation", approved by a decree of the Russian government (November 5, 1997), declares the mission of health care to be maintenance and further improvement of health and reduction of direct and indirect public losses through achievement of lower morbidity and mortality rates. Attainment of these goals is hindered by inadequate levels of financing.

As discussed in Chapter 3 (Section 3.5.3), there is an obvious correlation between per capita health spending and average life expectancy in Russia. All countries, which have achieved rapid decline of mortality and rise of life expectancy in recent decades, have seen large growth in public and private (i.e. total) spending on health care.

In the USA, the share of health spending in overall GDP grew from 5% in 1960 to 15.3% in 2004[1] (the growth was accompanied by rapid expansion of GDP itself). The typical level of health spending in wealthy European countries is 8-10% of GDP, consisting mainly of public funds (Figure 9.1).

However, even countries, where growth in the share of health spending has been less rapid and little different from that in Russia, have much higher spending per capita than Russia, due to higher per capita GDP.

Per capita health spending in absolute terms has grown very rapidly since 1970 in Western Europe (Fig. 9.2), the USA and Japan. Countries with the lowest start-points have achieved the most remarkable im-

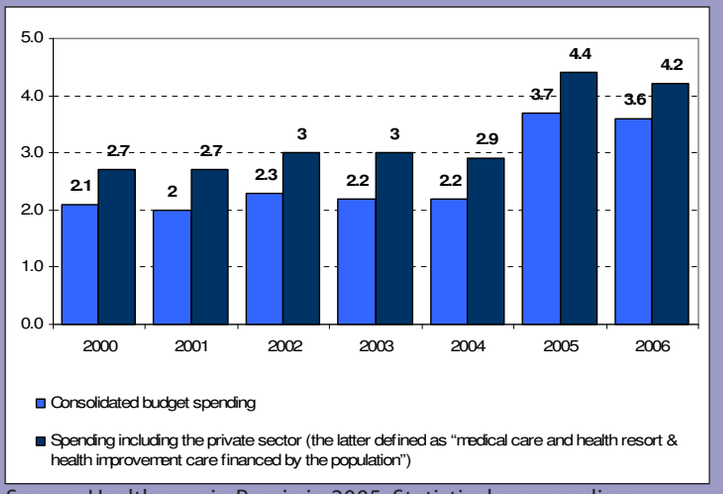


Source: Health for All (HFA) WHO data base, updated: July 2008

Figure 9.2. *Total per capita health care spending in some European countries, US dollars (purchasing power parity)*

provements. So, while growth in Sweden, Denmark and the Netherlands has been nine- or ten-fold, the rise in Portugal has been 40-fold.

There has been no such growth in Russia. In 2006, Russian public spending on health care and physical culture was 3.6% of GDP, which is equal to the level in the USA in 1980, But at that time the USA spent a further 5.2% of GDP on health in the private sector, so its total health spending was 8.8% of GDP. In Russia, private sector payments in 2006 (according to official figures) were only 0.7% of GDP, raising total spending to 4.2% of GDP[2].



Source: Health care in Russia in 2005. Statistical compendium. Moscow, Rosstat, 2006; Health care in Russia in 2007. Statistical compendium. Moscow, Rosstat, 2007.

Figure 9.3. *GDP share of health care expenses in Russia, %*

In recent years the share of health spending in Russian GDP has finally begun to grow, particularly since 2004 (Figure 9.3).

However, to date, absolute levels of Russian per capita health spending remain low compared with other developed countries. According to a WHO estimate, they were USD 561 (PPP) in 2005. This is roughly equal to the level in European countries in the mid-1970s. Today, European per capita health expenses are 4-6 times greater.

Fig. 9.4 shows funds available for allocation in Russia within the government guarantees programme (GGP), which has been approved annually for the last 10 years. Taking account of inflation developments and adjustments for index deflators, it is clear that levels are insufficient and that there has been almost no positive trend.

Inadequate funding and the need to maintain standards force health providers to cover shortfalls at the patient's expense, leading to development of a shadow economy in health care with negative impact on quality of service provision and on public health.

Reform of the economic model for health care, following introduction of compulsory medical insurance (CMI), is based on transition from a predominantly centralized, single-channel system of funding to a de-centralized, multi-channel system.

However, the CMI system is based on accumulation of health financing in regional funds, and this arrangement has led to inequalities between provision in different regions. Per capita GGP funding of free medical care differs by 2.5 times between federal districts, and differences between funding in most- and least-advantaged regions (components of the districts) are up to 10-15 times. This state of affairs does not reflect insurance risks (differences in morbidity rates and levels of public demand for medical care), but is due to large inequalities between regional economies and associated large inequalities in regional tax bases.

Failure of the basic insurance principle is clear from Figure 9.5, where the 10 best- and 10 worst-funded regions are shown. There

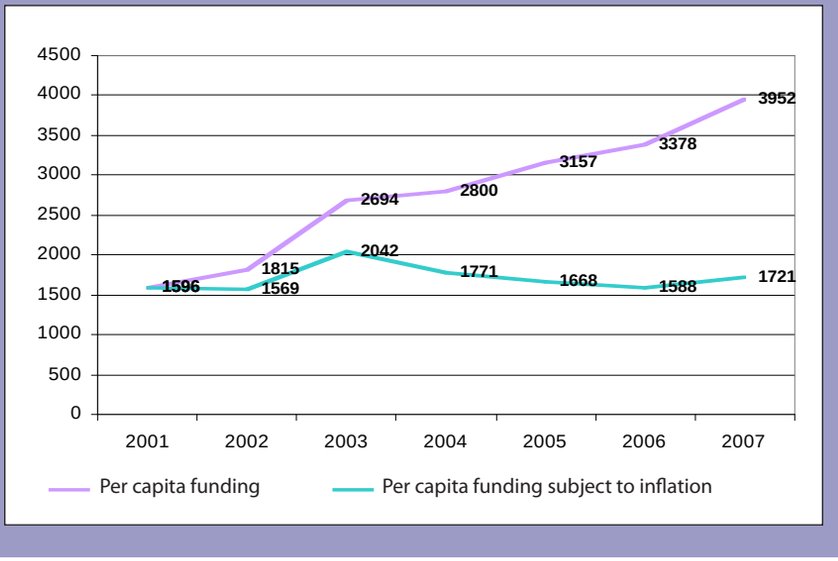


Figure 9.4. *Funding of health care under the government guarantees programme, 2001-2007, roubles*

is no correlation with morbidity rates.

The situation is aggravated by the CMI payment method, by which amounts payable to any prevention and cure facility (PCF) depend on the number of care services provided and tariffs for those services. The self-defeating result is to encourage extravagance with no regard for efficiency, leading to further strain on system financing and generally negative effect on public health.

Great hopes were placed on the "Concept for Public Health Care in the Russian Federation up to 2005", which was approved by the government in 2000. Its declared aims were improvement of public health through measures to change life styles, increase health awareness among the general public, and combat factors detrimental to health. Teaching basic techniques for healthy life style and improvement of hygiene practices is a relatively low-cost way of achieving major social and economic benefits. But the Concept has had no noticeable impact on health system reform.

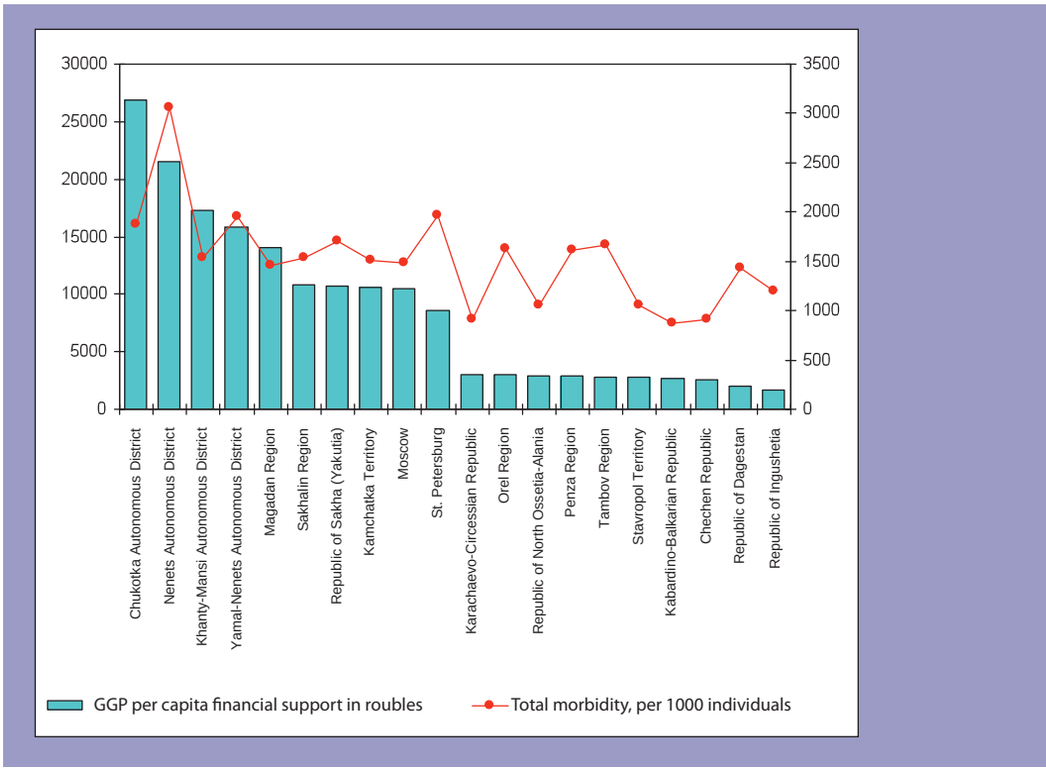


Figure 9.5. *Health financing under the government guarantee program (left scale) and total morbidity rates (right scale) in various Russian regions*

Improvement of public health also figures large in the priority National Project, "Health", which emphasizes prophylaxis as an efficient method of disease prevention and calls for use of special technologies to combat mortality rates.

But the actual prophylactic focus has been on contagious and hereditary diseases, instead of on circulatory diseases, cancers, alcoholism, drug addiction, etc., which are now more prevalent. And expansion of clinical examinations, which have their own limitations, is more useful for early detection of diseases than for their prevention or reduction of incidence. Declarations of the need for development of health awareness among the general public, improvement of people's health motivation, steps to reduce alcoholism and drug addiction, and support for fitness and sport have not been translated into action.

Recent efforts to improve the demographic situation include introduction of a certificate issued to women for payment of medical care during pregnancy and childbirth. The aim is to improve competitiveness and, hence, the quality of care available to women during pregnancy and childbirth, by letting women choose the health facility, which they will use. The outcome should be lower maternal and neonatal morbidity and lower mother & child mortality.

Overall, despite certain changes for the better, it is clear that health system reforms are not equal to the demographic challenges. Initiatives often go no further than statements of intention and fail to take account of conflicts of interest between entities involved in public health care.

9.3. Main health care issues in the context of medical and demographic developments

The global health strategy presented by the World Health Organization states that any national health policy should take account of all demographic changes, which can have significant impact on the economy, on quality of public health, and on patterns of public health organization and funding. For instance, demographic changes can affect the nature of prevalent pathologies and se-

lection of priorities for disease control and prevention. This is fully applicable to Russia.

One of the major demographic challenges for the Russian health system is ageing of the population (see Section 1.3.4 of this Report).

The growing share of senior age groups entails a shift of overall public morbidity towards non-contagious, chronic diseases, which are most characteristic of such age groups. More funds need to be made available for appropriate medical care and changes need to be made in the structure of health care.

For instance, incidence of malignant cancers, which are particularly prevalent among senior age groups, and mortality from such cancers have grown more than by 20% throughout the world in the last decade. A similar trend is visible in Russia.

Another problem is the growing number of old people living alone, who are unable to look after themselves, due to poor health, and need long-term care either at home or in specialized facilities. This involves major expense, both for the government and the general public. In some countries spending to address this problem already exceeds 1% and, sometimes, even 2% of GDP (Figure 9.6).

Available forecasts for changes in age & gender structure, taking account of geographical distribution, and for medical care consumption ratios by various population groups, suggest specific changes in volumes of medical care to be financed by the GGP. Calculations show that outpatient clinical care needs could grow by about 9% for men and 11% for women up to 2025. Respective figures for inpatient care are 11% and 14%, for inpatient substitutive care 21% and 20%, and 16% and 33% for ambulance services. These increases are roughly similar for the urban and rural population. There will also be specific changes in needs for specialized types of care.

While ageing of the population is the main long-term trend in age-group distribution in Russia, it does not preclude other changes, which also need to be borne in mind. Current growth in birth rates will lead to increase in numbers of children and teenagers, requiring more investments in pediatrics. This will be in addition to inevitable growth of spending on gerontology, cardiology, oncology and medico-social care due to the ageing trend. Growing share of retirees with relatively low income among patients will increase needs for state funding. On the other hand, expected reduction of the female population of reproductive age suggests reduced need for medical care in pregnancy and childbirth departments and pregnancy pathology departments, despite some growth in birth rates.

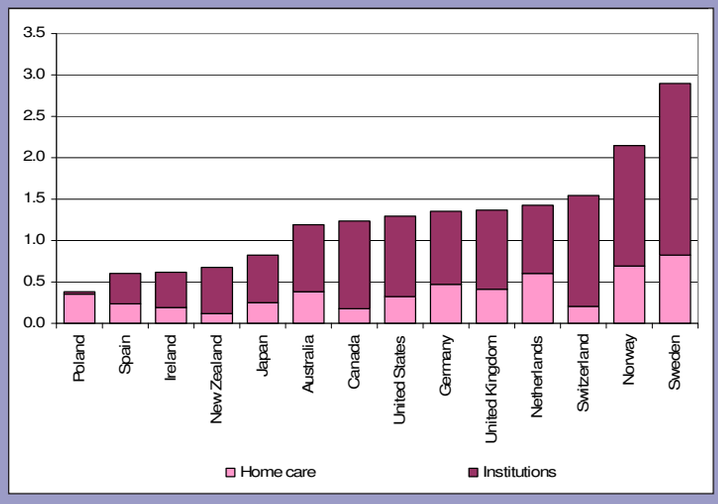
The acute Russian problems of high mortality, short life expectancy, and eagerly loss of good health pose evident challenges to the nation's health system.

A strategy to address the mortality crisis needs to be based on analysis of the entire structure of causes of death in all age groups, but the main priority should be lower rates of preventable mortality, particularly in working age groups. Every third death in Russia occurs at working age (three times more than in developed countries), and annual losses through preventable, premature mortality are about 22 million man-years of potential life expectancy.

During the last 40 years, particularly large numbers of deaths at relatively young ages have been due to cardio-vascular (circulatory) disease and external causes. So these two factors are evident priorities for the health system. The economic aspect is also important: circulatory disease and external trauma are among four items (the other two are respiratory and digestive diseases), which are most costly to treat, accounting for more than 50% of total Russian health spending.

Another factor tending to undermine public health in Russia is environmental pollution (Box 9.1).

Migration also represents a demographic challenge, since it creates a need for tighter epidemic control, mutual adaptation between migrants and the Russian health system, divergence between planned and the actual volumes of medical care (due to unregistered migration flows), etc.



Source: Long-term care for older people. OECD, 2005, p. 26.

Figure 9.6. *Expenditure on care for the elderly in various countries in 2000, % of GDP*

Box 9.1. Estimated costs due to public health effects of environmental pollution in various Russian regions (morbidity and mortality)

Russian subject entity	Total (million euros)	Per capita (euros)	Share of GRP, %
Republic of Bashkortostan	1477	360.9	7
Republic of Tatarstan	1076	285.5	4
Nizhny Novgorod Region	1133	315.0	6
Perm Region	731	249.9	4
Samara Region	955	293.2	4
Sverdlovsk Region	1743	383.6	8
Chelyabinsk Region	1405	387.2	8
Novosibirsk Region	648	238.2	5
Tomsk Region	241	227.3	3

B.A. Revich, V.N. Sidorenko. Economic consequences of environmental pollution impact on public health. Moscow, 2007.

9.4. Conditions and mechanisms of an efficient health system

9.4.1. Resource support

In order to address priority tasks (a positive trend in public health, reduction of incapacitation and mortality rates, better care for the elderly, and improvement of medical technology) the Russian health systems needs doubling of funding, and more efficient use of that funding.

Priority tasks need to be addressed within the public health system, which should retain its leading role despite expected development of the role of the private sector in provision of medical care and in total health spending.

This requires law-based assurance that the GGP will finance free medical care, with clear specification of types, amounts, methods, terms and conditions for its provision. It should also be clearly specified how people can exercise their rights in case of any failure to honor commitments stipulated in the GGP.

There are arguments to support introduction of part payment by patients for medical care, since this could encourage public solidarity principles and assumption by people of responsibility for their own health. But patient participation in payments for medical care must be based on specification of the scale and procedure for such payments and appropriate legislative support, including allowances/discounts applicable to people on low incomes.

The public solidarity principle (where the rich support the poor, and the healthy support the sick) should continue to be the fundamental basis of health care funding, making the government responsible for medical care guarantees to sick people, who are least able to afford proper treatment.

Larger allocations to health care need to be accompanied by simplification of funding mechanisms and cash flows in the sector and proper financial management to motivate greater efficiency by all parties.

These aims can be partly achieved by improved mechanisms for payment for medical care and for salary payment to medical personnel.

9.4.2. Improvement of health care management and choice of priorities

Health system reform requires considerable managerial resources to oversee spending and decision making at national, regional, local and service-provider levels.

The reforms need to be based on strategic planning, which reflects medical and demographic differences between regions (based on socio-economic development level and quality of public health in each region). Each region, municipal entity and medical facility needs to have reliable

information in order to ensure adequate managerial decisions.

Health system reform in the Russia needs an appropriate inter-sector policy, since high morbidity and mortality rates are largely dependent on factors, which are outside the control of the health system. Such inter-sector policy should focus on issues of alcohol abuse, smoking, diet, fitness and road safety

Government-private partnership can make an important contribution to health improvement and prophylaxis programmes, as shown by practical experience of many Russian companies.

Efficiency of health system management depends largely on correct choice of priorities.

The Concept for Demographic Policy of the Russian Federation up to 2025 specifies three groups of tasks (see Box 9.2):

- reduction of mortality, primarily among people of working age;
- reduction of maternal and infant mortality, improvement of reproductive health and of health among children and teenagers;
- improvement of public health, reducing incidence of common diseases, creating conditions and motivations for healthy life styles.

These tasks partly overlap. They are very large in scope, and, even if stated in more detail, they are too extensive for definition of precise courses of action.

The World Bank Report entitled "Too Early to Die" contains arguments for a focus on HIV and tuberculosis, but also on non-contagious diseases (particularly cardio-vascular, oncological, gastro-intestinal and respiratory) as well as diabetes. Other approaches are also possible in selection of Russian health care priorities. But, as shown in Section 3.4.5 with respect to mortality, specific health care deficiencies in Russia are not hard to identify and a definite choice of priorities needs to be made so that the most acute problems can be addressed.

Box 9.2. Health care tasks as part of the State Concept for Demographic Policy

Reduction of mortality, primarily among people of working age:

— reduction of mortality caused by cardio-vascular diseases through a comprehensive system of risk factor prevention, early diagnostic practices using advanced technologies and educational programmes for prevention of such diseases;

— improvement of material & technical provision at health facilities responsible for care, including emergency care, of patients suffering from cardio-vascular diseases; provision of health facilities with required equipment and personnel to the applicable standards; establishment of required services within municipal and regional health facilities; making high-tech medical care affordable to patients and developing a system of restorative treatment and rehabilitation for patients;

— reduction of mortality and traumatism due to road accidents through improved road infrastructure, greater observance of the rules of the road, better organization of road traffic and more rapid and improved provision of medical care, at all stages of such care, to individuals involved in road accidents;

— reduction of mortality and traumatism due to industrial accidents and occupational diseases through transition (in industrial safety) to a system of professional risk management (including personnel awareness of risks and design of a system for identification, assessment and control of such risks), and through economic motivation for improvement of existing working conditions by employers;

— reduction of suicide mortality by more efficient preventive approaches to risk-groups;

— reduction of oncological mortality by implementation of appropriate prophylactic and screening programmes for early detection of oncological diseases;

— reduction of HIV/AIDS and tuberculosis mortality through improved programmes for prophylaxis and treatment and through new innovative treatment technologies;

— special programmes for senior age groups;

— making medical care more accessible for residents of rural and remote areas.

Reduction of maternal and infant mortality, improvement of reproductive health and improvement of health among children and teenagers:

— improvement of accessibility and quality of free medical care to women during pregnancy and childbirth and to new-born children through development of family-oriented perinatal technologies, which reduce risk of unfavorable outcomes of pregnancy and childbirth, through improved material & technical support and human-resource support of mother & child services (equipment improvements at obstetric facilities) and through development of high-technology medical care to women during pregnancy and childbirth and to new-born children;

— affordable and better-quality reproductive health care, including auxiliary reproductive technologies; reduction of employment with onerous, harmful and hazardous work conditions in order to support reproductive health;

— prophylactics for early detection of health disorders in children and teenagers; improved primary and specialized health care for children (including use of advanced medical technologies); improvement of the existing system of rehabilitation and restorative medicine for children and teenagers; more active prophylactic work to prevent alcoholism, drug addiction, smoking and undesirable pregnancy;

— development of a system for provision of medical care to children and teenagers in education facilities; organizing good-quality hot food catering to school children and teenagers at elementary vocational education facilities, including free catering for children from low-income families; compulsory physical fitness classes at all types of education facilities.

Improvement of public health, major reduction of common diseases and creation of conditions and motivations for healthier life styles:

— promotion of healthy life styles, particularly among the young, though public information campaigns and mass media, as well as explanation of negative health factors and precautions to be taken against such factors; promotion of sport, travel and physical culture; organization of recreation and leisure activities, and support for public initiatives to improve public health;

— steps to reduce alcohol consumption, to regulate manufacture and sale of strong drinks, programmes in education facilities to discourage alcohol consumption and smoking among children and teenagers;
— an efficient system to prevent common diseases and factors causing development of such diseases;

— creation of appropriate environments for disabled individuals with restricted ability; support for socialization of disabled individuals;

— comprehensive health and rehabilitation programmes to speed recovery from diseases and traumas; development of services in health resorts and sanitaria;

— steps to maintain health and prolong working life in the older generation; development of the old-age care system.

Concept for Demographic Policy of the Russian Federation up to 2025
Approved by Russian Presidential Decree No. 1351 (October 9, 2007)

9.4.3. Social justice principle

The approach to public health issues in Russia should take account of social divisions in society. Structure and incidence rates of diseases vary between population groups depending on the nature of their employment. Socio-economic factors are highly important for health among adults and children, and decline in living standards creates particular risks of child diseases becoming chronic.

Income levels create difficulties for some individuals in obtaining medical help (particular private medical help), in affording efficacious drugs, etc. So economic inequality has impact on health. This phenomenon should be addressed by a social justice principle, which serves to remove or, at least, to reduce such inequality (Box 9.3).

9.4.4. Public involvement

As evidenced, convincingly, by international experience, success of any health programmes depends on personal involvement of patients and the public at large, who need to realize the importance of looking after their own health.

Improvement of public health, major reduction of the incidence of common diseases, and creation of conditions and motivations for healthy life styles involves: promotion of healthy life styles, particularly among the young, though public information campaigns and mass media, as well as explanation of negative health factors and precautions to be taken against such factors; promotion of sport, travel and physical culture; organization of recreation and leisure, and support for public initiatives to improve public health

Box 9.3. Health equality

Health equality is understood as absence of any systematic differences in the quality of health (or in the major social determinants of health) between population groups dissimilar in their social status, and equality of the health care system is measured by such parameters as share of the population covered by the system and accessibility and affordability of medical care.

A fair system of funding and appropriate financial support are essential principles underlying distribution of contributions by households to financing of health care. Cost of medical care can be extremely high, and the need for such care often arises unexpectedly, so people should be assured of appropriate financial security. A fair system of health care funding should be designed to provide such financial security to all members of society. If such a system is in place, the risks of each household of having to pay health care expenses are distributed in accordance with what individuals can afford, and not with severity or nature of their diseases. This means that costs of medical care, however high, will not threaten individuals or families with poverty or non-provision of the medical treatment, which they need.

The share of people applying for medical care has positive correlation with the levels of their income. As shown in table below, difference between the share of the wealthiest and of the poorest of all respondents, who have applied for medical care is, sometimes, as high as 1.5 times. This suggests that affordability of medical care is dependent on level of income, although difference in the attitudes of people from different social backgrounds towards their own health is probably also part of the explanation.

Shares of respondents, who had sought medical care

Average	34.4
Poorest 10%	23.5
Wealthiest 10%	35.9

Sources: Rosstat, 2007
Government spending on health care in the Russian Federation: Problems and means of solution. World Bank. 2008.

Much depends on a large-scale public campaign to promote healthy life styles and to teach self-control and self-treatment to patients suffering from widespread chronic diseases. Promotion of desire for good health and self-preservative conduct is a top-priority task to be pursued through cooperation between government, mass media, youth and other organizations, medical personnel, and the general public.

Measures to reduce alcohol consumption and regulate the manufacture, sale and consumption of strong drink products are of particular importance, as are preventive programmes in education facilities to combat consumption of strong drinks and tobacco products by children and teenagers.

It is important to develop economic motivations for healthy life style and disease prevention, although this is a difficult task, due to low incomes, low levels of sanitary culture and various other socio-economic factors, which tend to make people careless of their health, and cause them to avoid seeking medical care, even in case of actual disease.

* * * * *

Russia's adverse medico-demographic situation, high mortality, growing morbidity rates, increasing incidence of social and occupational health defects, and a rising share of grave diseases in far-advanced stages require an adequate response from the health care system. There is a need for improved affordability/accessibility and quality of medical care, development of the prophylactic system, and better precautions against major morbidity and mortality risk factors. Specific strategy for overcoming the mortality crisis in Russia should be based on analysis of the prevalent structure of death causes, comprehensive goal-oriented programmes with sufficient funding, and maximum involvement of patients and the general public, who need to become more aware of the importance of protecting their health.

Post-Soviet health care reforms have been mainly focused on improvement of health care funding and have not always risen to the country's demographic challenges, tending to neglect conflict between (macro- and micro-economic) interests of entities concerned with public health care. Budget insurance by regions has failed to solve problems, tending to encourage disregard for spending efficiency, growth of a shadow economy in the health sector, sharp regional differences in available funding, and lower quality of medical care, with eventual negative effects on public health.

Solving the problems of the health system requires greater funding, and use of that funding to match public needs, observing principles of equal access and elimination of discrimination by employment status, age, nature of disease suffered, place of residence, etc. Most efficient use of funds depends on:

- improved planning in the health care system subject to development of the medical and demographic situation;
- optimization of cash flows in the sector;
- full implementation of economic management methods, providing incentives for better operational efficiency by all parties through improved mechanisms of payment for medical services and salary payments to medical personnel;
- mechanisms to make people take better care of their own health, and guaranteed medical care to those who can least afford to pay for medical treatment out of their own pocket.

It is also necessary to create legislative support to optimize infrastructure of the health system and the compulsory medical insurance system. In particular, it is important to combine the federal principle with a measure of regionalization, which makes regions accept more responsibility for their own social development. There should be in-depth analysis of correlation between the insurance system and public health indicators, such as incidence rates of social diseases, supporting steps to improve the medical and demographic situation.

[1] Statistical Abstract of the United States 1996. Washington, 1996, p. 111; Statistical Abstract of the United States 2008. Table 1311
[2] Health care in Russia in 2007. Statistical compendium. Moscow, Rosstat, 2007, p. 311, 315.

Chapter 10

HUMAN DEVELOPMENT INDEX IN RUSSIAN REGIONS IN 2005-2006

Life expectancy at birth, education levels and income levels are the three major factors, which determine development of human potential.

This triad has been in a state of imbalance in post-Soviet Russia: despite high levels of education, the two other development components have lagged far behind. Economic recession due to the crisis of the 1990s was not overcome until 2006. Subsequent economic growth pushed per capita GRP, calculated via purchasing power parity (PPP), closer to that of European countries with medium development levels. But the long period of economic growth was not supported by any positive changes in the third major human development component – longevity. This is a long-standing problem, a major sign of demographic problems, which became visible as early as the 1960s and remains an acute problem.

The role of socio-demographic factors in Russia's development is increasing, as evidenced by the chapters in this Report and by calculation of the Human Development Index (HDI). What chances are there for positive shifts in longevity, Russia's most problematic HDI component? In 2006, for the first time in eight years of economic growth, a significant increase of life expectancy at birth was reported, although the reported life expectancies remain lower than at the end of the Soviet period. The Index showed certain positive shifts, both social and economic. The HDI is calculated as the average of its three components. However, education and longevity are more important, because, unlike income, they are taken into account without any discount. According to the human development concept, unlimited increase of income is not the most important factor for quality of human life. What is more important is to ensure that economic growth has greatest possible practical use for human development purposes. (Methods used for calculation of the Index are shown in the Appendix to this Report).

In the mid-2000s, Russia was among countries with high human development levels, showing an HDI score of 0.800. The Index grew in all Russian regions, except for the Chukotka Autonomous District. Growth was particularly dramatic in 2006, mainly thanks to increased longevity. The number of regions, where the Index was similar to that of developed countries (0.800 and above), grew sharply – from 4 in 2004 to 12 in 2006, with Moscow attaining an even higher level of 0.900 to overtake Central & Eastern Europe. As in previous years, achievements of the leading group are mainly due to economic advantages. The group includes Moscow and St. Petersburg and the leading raw material-exporting and metal producing regions (Figure 10.1). Nevertheless, overall economic and social development of

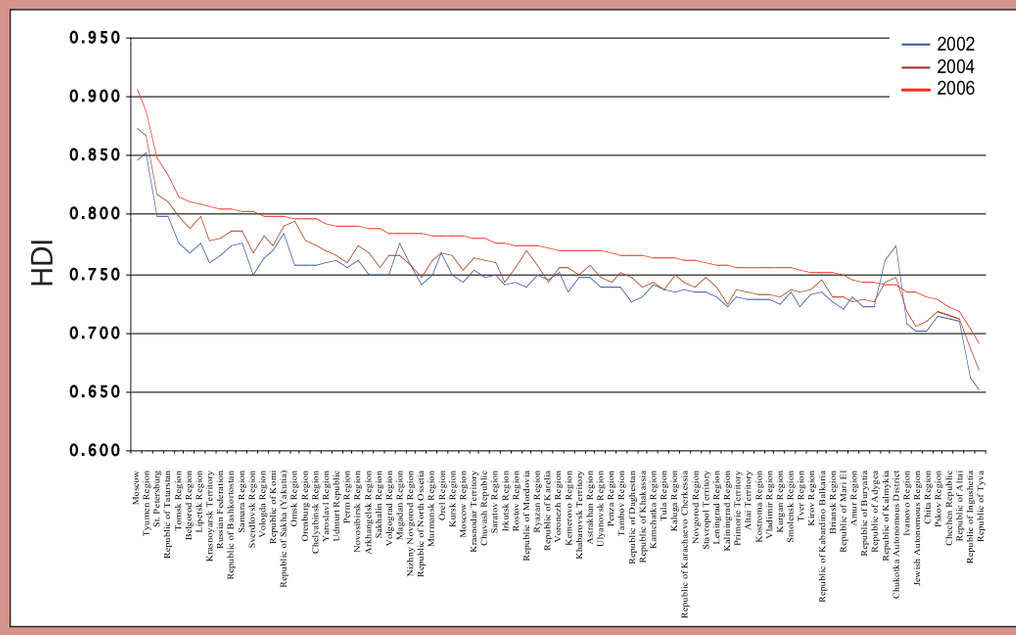


Figure 10.1. *Human Development Index distribution by regions in 2002-2006*

regions with highest HDI levels is better balanced, and all of them, except for Krasnoyarsk Territory, have longevity superior to the national average. HDI calculations for 2006 and 2005 are shown in Tables 10.1 and 10.2.

In some under-developed regions, human development is imbalanced in another way, with longevity at higher rates and other components (particularly income levels) lagging behind. In 2006, the Chechen Republic made its first appearance in the ratings and took 77th position out of 80 regions. Per capita GDP (in terms of purchasing power parity), places Chechnya second last, with only Ingushetia worse off; the same is true of education (for children and young people); however, Chechnya rates second best in the whole country by life expectancy, with Ingushetia in first place. Experts attribute the result to inaccuracy in statistical records of mortality, particularly infant mortality, which leads to exaggeration of life expectancy in Chechnya and Ingushetia.

The major contribution to positive HDI dynamics in Russian regions has been from two factors. The first is continuing economic growth due to high prices for export commodities and growing domestic demand for goods and services. The most rapid growth of per capita Gross Regional Product (GRP) in terms of PPP was in Russia's largest agglomeration (Moscow and Moscow Region), some raw material-exporting regions (Perm, Sverdlovsk, Sakhalin and Krasnoyarsk), averagely developed Nizhny Novgorod and Tver Regions and some republics with fairly low levels of economic development (North Ossetia, Chuvashia and Tyva), although, for them, the rapid growth is partially explained by the low-base. Only two regions (Chukotka Autonomous District and Omsk Region) showed falls of per capita PPP GRP, which were due to institutional reasons (change of legal addresses of large oil companies which had previously been registered there). Apart from lower GRP, the loss of big oil companies caused substantial decline of tax revenues in these regions.

By 2006, Russia had attained fairly high levels of per capita GRP PPP (more than USD 13,000). However, effects of economic growth on human development in a huge country cannot be assessed in terms of such averages. Economic inequality between regions in Russia is too large and continues to grow. Of 80 Russian regions, only 13 have per capita GRP PPP higher than the national average, including Tyumen Region, where the rate is 4 times higher, and Moscow (more than two times higher). Almost every fourth region of the Russian Federation has per capita GRP less than half of the national average, including the least developed Republics of Ingushetia, Chechnya and Tyva (12-32%). Nevertheless, in 2006, more than 40% of regions had per capita GRP higher than USD 10,000 (PPP), surpassing Bulgaria

and Romania, which are both rated as developed countries in terms of the HDI.

Another prevalent trend is growth of life expectancy in all regions, except Nenets Autonomous District. Since this trend only appeared in 2006, it is too early to estimate sustainability (see also Chapter 3). It is also difficult to estimate contributions by various factors, such as greater funding of the social sphere (including health care, which has improved supply of medicines and affordability of primary medical care) and tighter control over quality of alcoholic drinks. However, regional differences between growth of life expectancy are fully explainable: beneficial effects from solution of urgent problems are more visible where such problems have been most acute. Largest improvements in life expectancy have been seen in regions with lowest longevity: in East Siberia (Irkutsk Region, Chita Region, Krasnoyarsk Territory and the Republics of Khakassia and Tyva, where growth was 4-5% in 2005-2006), in many regions of Central Russia and the North-West (Ivanovo Region, Yaroslavl Region, Kostroma Region, Bryansk Region, Vologda Region, Arkhangelsk Region, etc. – by 3%) and in the exclave Kaliningrad Region. Growth of life expectancy at birth pulled Irkutsk Region upwards from 46th to 35th position and Krasnoyarsk Territory from 14th to 8th position. On the whole, regions with biggest life expectancy improvements (mainly eastern regions), showed the best HDI dynamics.

However, regions with relatively high life expectancy at birth, including southern areas of European Russia and the most developed regions of the Russian Federation, showed minimal HDI growth (about 1%). In the South, particularly in the North Caucasus republics, less severe climate and lower rates of alcoholism remain the dominant positive factors. Growing social spending promotes better development of southern regions, but has no perceptible influence on longevity rates. In the wealthiest regions of the Russian Federation (Moscow and the oil & gas producing autonomous districts of Tyumen Region), higher life expectancy is due to modern life styles and a new attitude among residents to their own health. Growth of life expectancy in these regions became apparent earlier (particularly in the capital city), thanks to their higher personal income levels and maximal per capita budget funds available for health purposes. However, having attained higher indicators, the developed regions have been unable to achieve further improvement through funding increases alone: major improvement in quality of medical care is needed, and this requires reform of health care. While it was possible to soften the acute problems of availability of primary medical services and these measures have given more appreciable result in the territories of concern with degrading social sphere.

Despite positive HDI dynamics, Russia still has huge differences in human development across its territory. But at least, in 2005-2006, the HDI gap mentioned in earlier reports between leaders and outsiders did not widen further. Index levels grew at equal pace in all regions, except for a few. Growing economic differences between "strong" and "weak" regions were partially compensated by different geographic of growth of life expectancy, and this was partly due to more efficient re-distribution policies, which achieved noticeable growth of social spending in regions with average and low levels of development.

Territorial differences can also be estimated based on shares of the Russian population living in regions with dissimilar human development levels (Figure 10.2). Although such comparison is an approximation only, due to income inequality of the populations inside regions, it does allow an estimate of the share of population, for whom regional human development conditions are improving. There have been major positive changes in the last two years, and particularly in 2006. Almost 30% of Russians live in regions with high levels of human development – twice more than previously. Such regions have sufficient resources and opportunities for human development improvement without external help. However, the majority of Russians continue to be concentrated in regions rated below average: two thirds of Russians have limited human development potential. Regions rated lowest (with Index scores below 0.750) have 6% of the Russian population: these are the most problematic regions, which cannot develop further without large-scale, long-term federal support.

As shown by the analysis, no sustainable or rapid growth of HPDI is possible without the combination of two trends: economic growth and positive social changes in the environment and life style of the population. This combination only began to take shape as recently as the mid-2000s, and it has already improved the quality of growth. Depopulation dramatically increases the importance of human development, but socio-demographic aspects of development are inertial,

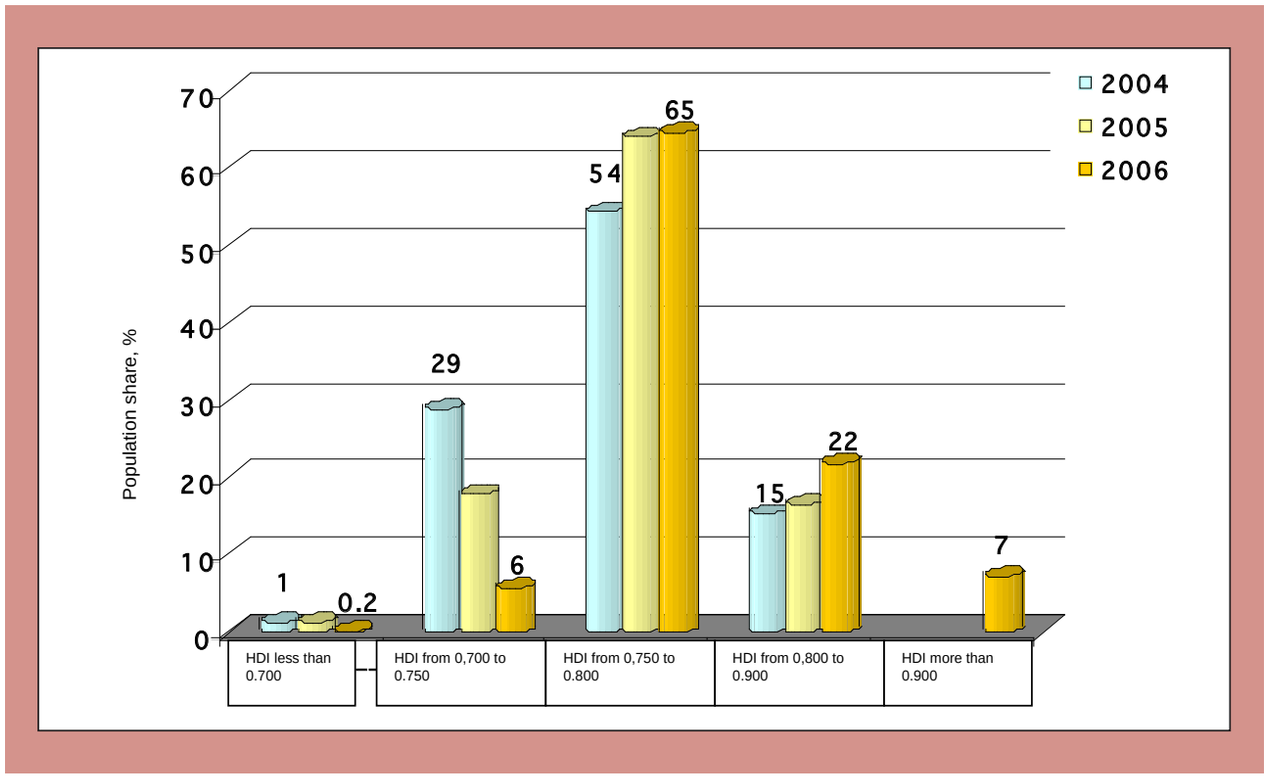


Figure 10.2. *Share of population living in regions of the Russian Federation with different HDI levels, 2004-2006*

and their modernization cannot be supported by economic growth alone: it also requires a long-term and purposeful policy to change people's life styles, which cannot be truly efficacious without cooperation between government and society. Sustainable growth requires more rapid social transformation in Russia, selection of priorities to be followed and design of truly efficient social and regional policy mechanisms that take account of human development specifics of various types of region.

This Report contains the first-ever calculation of the Gender-related Development Index (GDI) for Russia and its regions. The Index also takes account of impact from differences between men and women in basic HDI indicators: life expectancy, literacy rate and access to education, and income. The income formula takes account of differences in salary rates payable to men and women, respectively, and the extent to which men and women are economically active.

Gender inequality in Russia is highly contradictory: there are large differences in life expectancy in favor of women and (less marked) predominance of women among students; but men are dominant in terms of income. These contrasts are expressed in the GDI, which is somewhat lower than the HDI. Nevertheless, GDI results also place Russia among developed countries (see Table 10.3).

Inter-regional comparison of the two indexes (GDI and HDI) shows that gender differences do not change the interregional rating to any great extent. Somewhat inferior GDI scores compared to scores in the HDI are mainly due to wider gender gap in longevity and income levels, and less pronounced female predominance among students/graduates. This combination pulls down scores for the Republic of Bashkortostan, which is in the group of leaders, and for a number of mid-ranking regions, including Khabarovsk Territory, Kurgan Region, Republic of Udmurtia and others. On the contrary, a higher GDI rating compared with HDI can be due to one factor only: very high involvement of women in education (in Novosibirsk Region) and reduced gender inequality in incomes (in Moscow and Kaliningrad Regions). On the whole, however, differences between the two ratings are not too great, since gender inequality remains a problem for the whole country.

Table 10.1. *Human Development Index in 2006*

	GDP PPP, $	Income Index	Life expectancy at birth, years	Life expectancy Index	Literacy, %	Share of school children/ students aged 7-24, %	Education Index	HDI	Ranking
Russian Federation	13252	0.816	66.60	0.693	99.4	73.4	0.907	0.805	
Moscow	28418	0.943	71.81	0.780	99.8	100.0	0.999	0.907	1
Tyumen Region	52599	1.046	67.95	0.716	99.2	72.3	0.902	0.888	2
St. Petersburg	14310	0.828	68.90	0.732	99.8	95.9	0.985	0.848	3
Republic of Tatarstan	16432	0.852	69.04	0.734	99.0	77.1	0.917	0.834	4
Tomsk Region	14556	0.831	66.50	0.692	98.9	79.2	0.923	0.815	5
Belgorod Region	11651	0.794	69.27	0.738	98.6	73.9	0.904	0.812	6
Lipetsk Region	15526	0.842	66.73	0.696	98.4	69.6	0.888	0.809	7
Krasnoyarsk Territory	15993	0.847	65.58	0.676	99.0	71.6	0.899	0.807	8
Republic of Bashkortostan	12569	0.807	67.47	0.708	98.8	72.8	0.901	0.805	9
Samara Region	12076	0.800	66.57	0.693	99.2	76.5	0.916	0.803	10
Sverdlovsk Region	13121	0.814	66.47	0.691	99.2	72.2	0.902	0.802	11
Vologda Region	14587	0.832	65.36	0.673	98.8	71.0	0.895	0.800	12
Republic of Komi	15931	0.846	64.21	0.654	99.2	71.0	0.898	0.799	13
Republic of Sakha (Yakutia)	12658	0.808	65.55	0.676	99.0	75.9	0.913	0.799	14
Omsk Region	12151	0.801	66.17	0.686	98.7	74.2	0.905	0.798	15
Orenburg Region	12404	0.805	66.17	0.686	98.9	72.2	0.900	0.797	16
Chelyabinsk Region	11817	0.796	66.17	0.686	99.1	73.8	0.907	0.796	17
Yaroslavl Region	11001	0.785	66.11	0.685	99.2	74.0	0.908	0.793	18
Udmurt Republic	10665	0.779	66.01	0.684	99.0	75.3	0.911	0.791	19
Perm Territory	14141	0.826	63.99	0.650	98.9	70.7	0.895	0.790	20
Novosibirsk Region	9186	0.754	66.38	0.690	98.8	80.0	0.925	0.790	21
Arkhangelsk Region	12950	0.812	64.84	0.664	99.2	69.3	0.892	0.789	22
Sakhalin Region	16441	0.852	62.79	0.630	99.4	66.2	0.883	0.788	23
Volgograd Region	8825	0.748	67.84	0.714	98.9	70.2	0.893	0.785	24
Magadan Region	10779	0.781	63.40	0.640	99.6	80.9	0.934	0.785	25
Nizhny Novgorod Region	10327	0.774	64.60	0.660	98.9	78.0	0.919	0.784	26
Republic of North Ossetia – Alania	6377	0.694	70.74	0.762	99.1	70.4	0.895	0.784	27
Murmansk Region	11558	0.793	65.17	0.670	99.6	65.7	0.883	0.782	28
Orel Region	7964	0.731	66.39	0.690	98.9	79.2	0.923	0.781	29
Kursk Region	8215	0.736	66.06	0.684	98.5	80.1	0.924	0.781	30
Moscow Region	11407	0.791	66.40	0.690	99.6	59.8	0.863	0.781	31
Krasnodar Territory	8147	0.734	68.74	0.729	99.0	65.8	0.879	0.781	32
Chuvash Republic	7639	0.724	66.98	0.700	99.0	77.0	0.917	0.780	33
Saratov Region	7511	0.721	67.37	0.706	99.2	72.6	0.903	0.777	34
Irkutsk Region	11202	0.788	63.06	0.634	99.1	73.8	0.907	0.776	35
Rostov Region	7134	0.712	67.61	0.710	99.1	72.3	0.902	0.775	м36
Republic of Mordovia	6634	0.700	67.75	0.713	97.9	76.2	0.907	0.773	37
Ryazan Region	8249	0.737	65.23	0.671	98.7	76.2	0.912	0.773	38
Republic of Karelia	10851	0.782	63.79	0.647	99.2	67.6	0.887	0.772	39
Voronezh Region	6384	0.694	67.11	0.702	98.3	78.3	0.916	0.771	40

	GDP PPP, $	Income Index	Life expectancy at birth, years	Life expectancy Index	Literacy, %	Share of school children/ students aged 7-24, %	Education Index	HDI	Ranking
Kemerovo Region	11466	0.791	63.04	0.634	98.9	68.1	0.886	0.771	41
Khabarovsk Territory	8870	0.749	63.67	0.645	99.5	76.2	0.917	0.770	42
Astrakhan Region	8016	0.732	66.14	0.686	98.6	70.3	0.892	0.770	43
Ulyanovsk Region	7598	0.723	66.33	0.689	98.6	71.5	0.896	0.769	44
Penza Region	6630	0.700	67.25	0.704	98.4	72.0	0.896	0.767	45
Tambov Region	6800	0.704	66.84	0.697	98.1	73.2	0.898	0.766	46
Republic of Dagestan	4556	0.637	73.35	0.806	98.4	59.4	0.854	0.766	47
Republic of Khakassia	8466	0.741	64.51	0.659	98.8	71.4	0.897	0.765	48
Kamchatka Region	7386	0.718	65.19	0.670	99.7	70.9	0.901	0.763	49
Tula Region	8774	0.747	64.23	0.654	99.1	68.3	0.888	0.763	50
Kaluga Region	7717	0.725	66.03	0.684	99.2	65.1	0.878	0.763	51
Karachaevo-Cherkessian Republic	5253	0.661	70.19	0.753	98.4	64.8	0.872	0.762	52
Novgorod Region	10189	0.772	62.66	0.628	98.9	68.2	0.887	0.762	53
Stavropol Territory	5710	0.675	68.25	0.721	98.6	67.9	0.884	0.760	54
Leningrad Region	13565	0.820	63.06	0.634	99.5	47.1	0.820	0.758	55
Kaliningrad Region	8425	0.740	64.13	0.652	99.4	65.5	0.881	0.758	56
Primorie Territory	7032	0.710	64.40	0.657	99.5	71.3	0.901	0.756	57
Altai Territory	6308	0.692	66.64	0.694	98.2	68.1	0.882	0.756	58
Kostroma Region	7670	0.724	64.62	0.660	98.8	67.2	0.883	0.756	59
Vladimir Region	7184	0.713	64.44	0.657	99.4	70.1	0.896	0.756	60
Kurgan Region	6492	0.697	65.52	0.675	98.4	71.0	0.893	0.755	61
Smolensk Region	7898	0.729	63.01	0.634	98.9	72.6	0.901	0.755	62
Tver Region	8178	0.735	62.85	0.631	99.1	69.9	0.894	0.753	63
Kirov Region	5748	0.676	65.80	0.680	98.4	73.1	0.900	0.752	64
Kabardino-Balkarian Republic	4836	0.647	70.14	0.752	98.8	59.2	0.856	0.752	65
Bryansk Region	6241	0.690	65.30	0.672	98.6	70.9	0.894	0.752	66
Republic of Mari El	6429	0.695	64.82	0.664	98.8	68.8	0.888	0.749	67
Amur Region	7528	0.721	62.23	0.621	99.3	68.5	0.890	0.744	68
Republic of Buryatia	7386	0.718	62.43	0.624	98.8	69.0	0.889	0.744	69
Republic of Adygea	4137	0.621	68.27	0.721	98.7	67.8	0.884	0.742	70
Republic of Kalmykia	4208	0.624	67.52	0.709	98.2	70.6	0.890	0.741	71
Chukotka Autonomous District	11262	0.788	58.93	0.566	99.4	61.7	0.868	0.741	72
Ivanovo Region	4513	0.636	64.49	0.658	99.3	74.5	0.910	0.735	73
Jewish Autonomous Region	7328	0.717	61.27	0.605	99.1	65.8	0.880	0.734	74
Chita Region	6946	0.708	61.43	0.607	98.8	65.2	0.876	0.730	75
Pskov Region	6614	0.700	61.22	0.604	98.9	67.3	0.884	0.729	76
Republic of Chechnya	2372	0.528	73.08	0.801	96.0	58.8	0.836	0.722	77
Republic of Altai	4800	0.646	62.49	0.625	98.3	68.4	0.883	0.718	78
Republic of Ingushetia	1644	0.467	76.02	0.850	96.2	45.7	0.794	0.704	79
Republic of Tyva	4189	0.623	58.43	0.557	99.1	69.5	0.892	0.691	80

Table 10.2. *Human Development Index in 2005*

	GDP PPP, $	Income Index	Life expectancy at birth, years	Life expectancy Index	Literacy, %	Share of school children/ students aged 7-24, %	Education Index	HDI	Ranking
Russian Federation	11861	0.797	65.3	0.672	99.4	73.4	0.907	0.792	
Moscow	24179	0.916	71.4	0.773	99.8	100.0	0.999	0.896	1
Tyumen Region	51023	1.041	66.8	0.696	99.2	73.3	0.906	0.881	2
St. Petersburgh	12824	0.810	67.8	0.713	99.8	92.9	0.975	0.833	3
Republic of Tatarstan	14398	0.829	68.0	0.716	99.0	78.2	0.921	0.822	4
Belgorod Region	10616	0.779	68.4	0.724	98.6	74.1	0.904	0.802	5
Lipetsk Region	13659	0.821	66.0	0.684	98.4	70.9	0.892	0.799	6
Republic of Sakha (Yakutia)	12850	0.810	64.7	0.662	99.0	77.9	0.920	0.797	7
Samara Region	11097	0.786	65.9	0.681	99.2	77.3	0.919	0.795	8
Tomsk Region	13101	0.814	65.0	0.667	98.9	73.0	0.903	0.794	9
Omsk Region	12366	0.804	65.2	0.670	98.7	73.7	0.904	0.792	10
Vologda Region	15762	0.845	63.1	0.635	98.8	71.5	0.897	0.792	11
Republic of Bashkortostan	10581	0.778	66.5	0.692	98.8	73.9	0.905	0.792	12
Orenburg Region	11285	0.789	65.0	0.667	98.9	72.2	0.900	0.785	13
Krasnoyarsk Territory	13295	0.816	63.1	0.635	99.0	72.2	0.901	0.784	14
Republic of Komi	14134	0.826	62.3	0.621	99.2	71.9	0.901	0.783	15
Sverdlovsk Region	10764	0.781	64.6	0.659	99.2	72.7	0.904	0.781	16
Chelyabinsk Region	10366	0.775	64.8	0.663	99.1	73.4	0.905	0.781	17
Novosibirsk Region	8859	0.748	65.1	0.668	98.8	79.5	0.924	0.780	18
Volgograd Region	8386	0.739	67.0	0.700	98.9	70.2	0.893	0.778	19
Udmurt Republic	10069	0.770	64.3	0.656	99.0	74.1	0.907	0.778	20
Yaroslavl Region	10407	0.775	64.0	0.650	99.2	73.8	0.907	0.777	21
Magadan Region	10177	0.772	62.6	0.6265	99.6	80.0	0.931	0.776	22
Murmansk Region	11410	0.791	63.8	0.647	99.6	67.7	0.890	0.776	23
Arkhangelsk Region	11791	0.796	62.9	0.632	99.2	69.9	0.894	0.774	24
Orel Region	7909	0.729	65.1	0.668	98.9	78.9	0.922	0.773	25
Kursk Region	7422	0.719	65.0	0.667	98.5	81.1	0.927	0.771	26
Perm Territory	11527	0.792	62.3	0.622	98.9	71.2	0.897	0.770	27
Krasnodar Territory	7115	0.712	67.5	0.708	99.0	67.1	0.884	0.768	28
Moscow Region	9589	0.762	65.7	0.678	99.6	59.4	0.862	0.767	29
Chuvash Republic	6206	0.689	66.4	0.690	99.0	78.7	0.922	0.767	30
Sakhalin Region	13791	0.822	60.6	0.593	99.4	65.4	0.881	0.765	31
Saratov Region	6926	0.707	65.9	0.682	99.2	73.6	0.907	0.765	32
Republic of North Ossetia – Alania	5071	0.655	69.6	0.744	99.1	70.8	0.897	0.765	33
Voronezh Region	6105	0.686	66.2	0.687	98.3	78.4	0.917	0.763	34
Rostov Region	6267	0.691	66.9	0.699	99.1	72.0	0.901	0.763	35
Nizhny Novgorod Region	8464	0.741	63.4	0.640	98.9	74.6	0.908	0.763	36
Ryazan Region	7523	0.721	64.0	0.651	98.7	77.5	0.916	0.763	37
Republic of Karelia	10540	0.777	62.1	0.618	99.2	68.8	0.891	0.762	38
Republic of Mordovia	5786	0.677	66.6	0.693	97.9	78.1	0.913	0.761	39
Republic of Dagestan	4157	0.622	73.3	0.805	98.4	60.0	0.856	0.761	40

	GDP PPP, $	Income Index	Life expectancy at birth, years	Life expectancy Index	Literacy, %	Share of school children/ students aged 7-24, %	Education Index	HDI	Ranking
Astrakhan Region	7746	0.726	64.8	0.664	98.6	69.8	0.890	0.760	41
Kemerovo Region	10841	0.782	61.6	0.609	98.9	68.4	0.887	0.760	42
Khabarovsk Territory	8106	0.734	61.9	0.6148	99.5	76.3	0.918	0.755	43
Ulyanovsk Region	6584	0.699	65.2	0.671	98.6	71.4	0.895	0.755	44
Tambov Region	6369	0.693	65.5	0.675	98.1	72.8	0.897	0.755	45
Irkutsk Region	9976	0.768	60.4	0.591	99.1	73.4	0.905	0.755	46
Novgorod Region	9381	0.758	61.7	0.611	98.9	69.4	0.891	0.753	47
Kaluga Region	7422	0.719	64.3	0.654	99.2	66.5	0.883	0.752	48
Stavropol Territory	5186	0.659	67.7	0.712	98.6	68.0	0.884	0.752	49
Kamchatka Territory	7219	0.714	63.5	0.6418	99.7	69.8	0.897	0.751	50
Penza Region	5695	0.675	65.5	0.675	98.4	73.4	0.901	0.750	51
Karachaevo-Cherkessian Republic	4548	0.637	69.2	0.737	98.4	65.1	0.873	0.749	52
Leningrad Region	12133	0.801	62.0	0.616	99.5	49.3	0.828	0.748	53
Smolensk Region	7538	0.721	62.0	0.616	98.9	73.8	0.905	0.748	54
Kabardino-Balkarian Republic	4620	0.640	69.3	0.738	98.8	60.7	0.861	0.746	55
Primorie Territory	6913	0.707	62.8	0.6305	99.5	71.5	0.902	0.746	56
Tula Region	7274	0.716	62.9	0.631	99.1	69.1	0.891	0.746	57
Vladimir Region	6397	0.694	63.3	0.638	99.4	70.1	0.896	0.743	58
Kirov Region	5681	0.674	64.2	0.653	98.4	72.7	0.898	0.742	59
Kostroma Region	7056	0.710	62.7	0.628	98.8	67.4	0.883	0.740	60
Republic of Khakasia	7585	0.722	61.2	0.603	98.8	70.5	0.894	0.740	61
Kaliningrad Region	7626	0.723	61.5	0.608	99.4	66.3	0.884	0.738	62
Altai Territory	5514	0.669	64.7	0.662	98.2	68.4	0.883	0.738	63
Chukotka Autonomous District	11057	0.785	58.1	0.5515	99.4	64.1	0.876	0.738	64
Kurgan Region	5377	0.665	64.2	0.653	98.4	71.7	0.895	0.738	65
Republic of Mari El	5601	0.672	63.4	0.640	98.8	70.9	0.895	0.736	66
Tver Region	6720	0.702	61.4	0.607	99.1	70.3	0.895	0.735	67
Bryansk Region	5537	0.670	63.4	0.640	98.6	70.7	0.893	0.734	68
Republic of Kalmykia	3623	0.599	67.0	0.700	98.2	73.1	0.898	0.732	69
Republic of Buryatia	6768	0.703	60.9	0.598	98.8	70.9	0.895	0.732	70
Republic of Adygea	3803	0.607	68.1	0.718	98.7	63.8	0.871	0.732	71
Amur Region	7079	0.711	60.3	0.589	99.3	69.5	0.894	0.731	72
Pskov Region	6183	0.688	60.2	0.586	98.9	68.1	0.886	0.720	73
Ivanovo Region	4279	0.627	62.1	0.619	99.3	73.6	0.907	0.718	74
Jewish Autonomous Region	6423	0.695	59.3	0.5723	99.1	66.8	0.883	0.717	75
Chita Region	6151	0.688	59.3	0.571	98.8	66.6	0.881	0.713	76
Republic of Altai	4616	0.640	60.4	0.590	98.3	71.3	0.893	0.708	77
Republic of Ingushetia	1606	0.463	75.6	0.844	96.2	41.2	0.779	0.695	78
Republic of Tyva	3596	0.598	56.0	0.517	99.1	70.9	0.897	0.671	79

Table 10.3. *Gender-related Human Development Index (GDI)*

	GDI ranking	GDI	Life expectancy at birth, years (2006)		Children and young people aged 7-24 years in education, % (2007)		Estimated income, PPP, $ (2006)		HDI ranking
			Women	Men	Women	Men	Women	Men	
Russian Federation		0.801	73.2	60.4	76	68	9319	17814	
Moscow	1	0.906	76.5	67.2	126	105	22677	34757	1
Tyumen Region	2	0.882	74.1	62.1	72	69	36758	69565	2
St. Petersburg	3	0.848	74.8	62.8	106	89	10720	18737	3
Republic of Tatarstan	4	0.828	75.6	62.7	77	72	11471	22241	4
Tomsk Region	5	0.812	72.9	60.5	85	75	9638	20148	5
Belgorod Region	6	0.806	75.1	63.5	74	71	7724	16301	6
Lipetsk Region	7	0.802	74.1	60.0	67	66	10544	21494	7
Krasnoyarsk Territory	8	0.801	72.2	59.4	72	67	10654	22095	8
Samara Region	9	0.799	73.5	60.1	78	72	8822	15912	10
Sverdlovsk Region	10	0.797	73.1	60.2	74	66	9601	17264	11
Republic of Bashkortostan	11	0.797	74.0	61.3	71	67	8553	17164	9
Vologda Region	12	0.795	73.3	58.4	73	65	9982	20013	12
Republic of Komi	13	0.794	71.1	58.0	72	67	10916	21478	13
Omsk Region	14	0.794	73.0	59.7	77	70	8645	16239	15
Republic of Sakha (Yakutia)	15	0.793	71.9	59.8	77	71	8769	16781	14
Chelyabinsk Region	16	0.790	72.8	59.9	76	68	7950	16364	17
Orenburg Region	17	0.787	73.0	59.9	73	67	7243	18309	16
Yaroslavl Region	18	0.786	73.4	59.3	76	66	7565	15237	18
Novosibirsk Region	19	0.785	73.4	59.9	83	74	6559	12260	21
Perm Territory	20	0.784	71.2	57.4	71	64	10222	18745	20
Arkhangelsk Region	21	0.784	72.2	58.4	71	63	9071	17380	22
Sakhalin Region	22	0.783	70.1	56.5	69	59	11471	21843	23
Udmurt Republic	23	0.782	73.3	59.2	74	67	7540	14331	19
Magadan Region	24	0.781	70.0	57.7	84	74	8040	13694	25
Republic of North Ossetia – Alania	25	0.781	77.2	64.4	76	64	5042	7876	27
Volgograd Region	26	0.779	74.4	61.6	71	66	5915	12204	24
Moscow Region	27	0.779	73.3	59.9	62	56	8735	14573	31
Nizhny Novgorod Region	28	0.778	72.4	57.6	80	70	7165	14181	26
Kursk Region	29	0.778	73.2	59.5	84	75	5707	11235	30
Krasnodar Territory	30	0.777	74.7	63.0	68	63	5850	10803	32
Orel Region	31	0.777	73.5	59.9	80	74	6002	10335	29
Murmansk Region	32	0.775	71.7	58.9	73	57	7618	15763	28
Chuvash Republic	33	0.774	73.6	60.8	79	70	5505	10122	33
Saratov Region	34	0.772	73.8	61.2	76	68	5166	10292	34
Rostov Region	35	0.772	73.4	62.0	75	70	5128	9471	36
Irkutsk Region	36	0.771	70.2	56.5	75	67	8322	14536	35
Ryazan Region	37	0.770	73.0	58.3	78	72	5903	11083	38
Republic of Mordovia	38	0.768	74.3	61.6	77	71	4769	8837	37
Voronezh Region	39	0.768	74.5	60.4	82	74	4528	8610	40
Republic of Karelia	40	0.767	71.0	57.3	68	61	7969	14257	39

	GDI ranking	GDI	Life expectancy at birth, years (2006)		Children and young people aged 7-24 years in education, % (2007)		Estimated income, PPP, $ (2006)		HDI ranking
			Women	Men	Women	Men	Women	Men	
Kemerovo Region	41	0.764	70.4	56.5	69	63	7574	16020	41
Ulyanovsk Region	42	0.764	73.2	59.9	72	66	5517	10064	44
Penza Region	43	0.763	74.3	60.7	72	68	4910	8695	45
Khabarovsk Territory	44	0.762	70.8	57.4	82	63	5915	12096	42
Republic of Khakasia	45	0.762	70.8	58.6	75	66	6140	11143	48
Republic of Dagestan	46	0.761	77.4	69.2	59	59	3276	5931	47
Kaluga Region	47	0.761	72.9	59.5	69	63	5669	10181	51
Tambov Region	48	0.761	74.0	60.3	70	70	5089	8856	46
Astrakhan Region	49	0.760	73.0	59.8	71	66	4828	11632	43
Karachaevo-Cherkussian Republic	50	0.760	76.0	64.4	66	65	3914	6797	52
Tula Region	51	0.759	71.8	57.4	70	66	5909	12328	50
Kaliningrad Region	52	0.758	70.8	58.2	73	61	6620	10442	56
Kamchatka Territory	53	0.758	70.9	60.1	76	61	5724	9014	49
Stavropol Territory	54	0.756	74.4	62.4	69	66	4178	7465	54
Novgorod Region	55	0.755	70.6	55.7	68	58	7411	13645	53
Altai Territory	56	0.753	73.2	60.5	71	64	4857	7989	58
Leningrad Region	57	0.753	70.8	56.3	47	42	9386	18492	55
Primorie Territory	58	0.752	71.0	58.5	77	62	5229	8989	57
Vladimir Region	59	0.751	72.1	57.5	71	65	5216	9599	60
Smolensk Region	60	0.750	70.6	56.3	74	69	5418	10930	62
Kabardino-Balkarian Republic	61	0.749	75.2	64.9	58	60	3878	5927	65
Kostroma Region	62	0.749	71.7	58.2	68	61	5083	10779	59
Tver Region	63	0.748	70.6	56.0	72	63	5663	11290	63
Kurgan Region	64	0.748	73.0	58.7	72	65	4319	9061	61
Bruansk Region	65	0.748	73.5	58.1	70	67	4520	8316	66
Republic of Buryatia	66	0.745	69.5	56.2	77	68	5488	9502	69
Republic of Mari El	67	0.744	72.2	58.2	70	63	4628	8521	67
Kirov Region	68	0.744	72.6	59.6	71	64	4213	7553	64
Chukotka Autonomous District	69	0.743	65.7	54.3	65	58	9574	12815	72
Amur Region	70	0.740	69.2	56.2	72	62	5357	9901	68
Republic of Adygea	71	0.738	74.1	62.7	68	66	3043	5397	70
Republic of Kalmykia	72	0.737	73.7	61.7	70	66	3331	5174	71
Ivanovo Region	73	0.730	71.9	57.6	77	67	3325	5997	73
Chita Region	74	0.729	68.6	55.3	72	59	5254	8787	75
Pskov Region	75	0.726	69.2	54.6	67	61	4990	8571	76
Jewish Autonomous Region	76	0.726	68.1	55.3	71	51	5232	9577	74
Chechen Republic	77	0.717	76.8	69.1	59	59	1659	3134	77
Republic of Altai	78	0.717	68.9	56.6	69	64	4397	5246	78
Republic of Ingushetia	79	0.701	79.8	71.9	45	47	1322	2012	79
Republic of Tyva	80	0.689	63.8	53.3	71	63	4008	4391	80

"THE MOST ACUTE PROBLEM FOR RUSSIA TODAY"
IN LIEU OF CONCLUSION

"The most acute problem for Russia today" is how the country's President characterized the demographic issue in his Message to the Federal Assembly of the Russian Federation on May 10, 2006. Demographic challenges are various, they are becoming increasingly serious, and the associated economic and political risks are ever greater. Unless these challenges are met, successful human development – the priority task for Russia in the 21st Century – will become an impossible task.

The acute nature of demographic problems has been officially recognized and efforts are being made to mitigate them, but it will not be possible to overcome negative demographic trends in the foreseeable future. This is because of the highly inertial nature of the demographic system: to a large extent, its future development is pre-determined by what has happened in earlier periods.

Specifically, there is no way of halting the ongoing process of demographic ageing, which is the inevitable result of transition from the former age-group distribution pattern, dating back thousands of years and formed in conditions of high mortality and fertility, to a new age-group distribution pattern, corresponding to low fertility and low mortality. In Russia, effects of that inevitable process are complicated by socio-economic cataclysms of the 20th century. As result, Russia will face extremely adverse demographic changes to its age-group distribution in the near future. These changes, which were "pre-programmed" by earlier evolution, will have negative economic and social effects, even if measures being taken today to improve the demographic situation are successful.

Consequently, however beneficial such efforts may be, they can only give a partial response to demographic problems, while a comprehensive, well-designed, consistent and long-term strategy for demographic challenges – what the Russian general public and the Russian government need – is still a matter for future deliberation.

Such a strategy needs to have two major axes.

The first axis should act on demographic processes as such to make their development more favorable and thus mitigate the challenges faced by society.

There needs to be a determined effort to achieve radical change in mortality, overcoming the long-term adverse trend and making a strong start on the road to increase of life expectancy as well as healthy life expectancy. Russia also needs to take long-overdue steps to carry out its "second epidemiological transition", a path which the majority of developed countries have already been following for some time. Such transition is characterized by promotion of an active and conscientious attitude on the part of ordinary people to preservation of their own health, helping to control mortality due to avoidable causes of death, associated with modern life. The most important of them are cardiovascular disease in relatively young age groups and external factors, the latter particularly among men. The share of deaths due to external causes in Russia is almost three times greater than in the West.

The tasks of the second epidemiological transition require increase of health care funding and radical improvement of the health care system. But what is most important at the current stage is positive changes in behavior and life style of the majority of population. These changes are happening in Russia at very slow rates (if at all), but they are essential for success in the struggle with ill health and early mortality. For instance, there has been no success in overcoming the disastrous effects of alcohol abuse on health and mortality in Russia. Abuse of alcohol is one of the main causes of high mortality in middle-aged men and an absolute impediment to human development in Russian society.

Some steps have been taken in recent years to improve the situation with mortality it was one of the aims of the National Priority Project "Health", and funding of the health care sys-

tem has been increased. However, the Russian mortality crisis is far from being overcome. Seriousness of the crisis and its disastrous consequences require much more energetic efforts of the Russian government and the Russian society to combat it.

The rise of fertility is an obvious way of exerting influence on the demographic situation. What is needed is development and improvement of family policies to promote a social climate, which encourages families to have two or three children. Experience of other countries, which practise such policies, is valuable. Family policy tends to be more successful when it takes into consideration the economic, social and demographic environment of today's urban family, which is more variegated and complex than the family environment in the past. Specifically, a policy will not be successful unless it truly serves to extend freedom of choice for individuals and families, enabling them to raise children in today's conditions of economic, social and demographic diversity.

Wise choice of family policies and their consistent development can encourage growth of family size. However, it is dangerous to overestimate probability of rise of fertility through pronatalist policy. World experience shows that the efficiency of such policy is not so high, and that its ability to influence the general demographic situation is limited.

If favorable evolution of fertility and mortality take place, natural population decrease in Russia will diminish. But a return to natural population increase is improbable in the foreseeable future.

The most promising, but also the most controversial way of tackling demographic issues, is international migration. Large-scale inflows of migrants to Russia can largely compensate natural population decrease and ease tensions in the labor market. But the beneficial effects are coupled with appearance of new socio-political and ethno-cultural problems. Any development strategy should take account of the essentially contradictory nature of the immigration response to the depopulation challenge and should specify mechanisms to ensure a safe balance between its positive and negative aspects.

The second axis of strategic responses to demographic challenges consists of adaption of public, government and social institutions to demographic trends, which cannot be changed.

For the foreseeable future, there is no way of halting decline of Russia's population at large or of its economically active groups. Ageing of the economically active and working population will continue, the share of senior working-age groups (40-72 years) among all people of working age will increase in coming decades, and the share of young people (up to 30 years old) will decline to less than a quarter of people of working age.

In these circumstances, support for rapid economic growth entails a system of responses designed to neutralize the effects of adverse demographic factors, which will tend to cause a growth slowdown.

First, ways must be found of improving labor productivity and structural changes must be made to improve overall economic productivity. Mechanisms are needed to ensure labor-saving economic development, with improved quality of human capital and rational employment of that capital.

Some of these objectives overlap with the previously-mentioned socio-demographic tasks. The rise of healthy life expectancy necessarily entail greater working-time capacities of each generation and, hence, a larger contribution by that generation to the national economy, partly compensating reduction in the population's size. Greater economic potential per generation can also be obtained through improved quality of education, with development of a continuous education system serving as a specific response to the changing demographic circumstances. Continuous education helps people, who have never left the labor market in four or five decades, as well as those with interrupted employment histories (such as women who have spent time away from work to care for children), to keep abreast of rapidly changing requirements for employee knowledge and competence. Continuous education is an indispensable tool to counteract adverse effects of the ageing of human resources and to improve

contribution of senior-aged employee groups to innovative economic development and transition to a knowledge-based economy.

Effect of population decline on economic growth can be offset by an efficacious employment policy, which mobilizes all the reserves available on the Russian labor market, increasing participation of people in economic activity throughout their life cycle, from young to old age. Although employment of average working age groups is already almost at their "capacity ceiling", the top and bottom of the age pyramid offer considerable opportunities for adding to the labor force.

There are considerable reserves for improving employment rates among young people. Young employees have new competences, which match the continuously changing requirements of modern economic development. However, the Russian labor market has specific barriers to young people seeking formal employment. Youth is more at risk of being unemployed or informally employed than middle and senior groups of the working-age population. Removal of such barriers is a good way of improving employment rates among the young, which is especially important when the typical age of young people entering the job market is tending to rise due to extension of the period normally required for education.

At the other pole of the age structure, there is potential for more labor contributions from individuals of retirement age. As of today, about 40% of men and almost half of women continue to work for 4 years after they start to receive their pension, and, overall, every fourth retiree is employed. Therefore, post-retirement age does not mean loss of ability to work for many people, and this age group can also be used (although to a limited extent) to offset the increasing deficit of human resources.

There are large opportunities for accelerated economic growth from structural shifts in employment distribution in favor of jobs with high labor productivity. Many Russian industrial sectors currently have low productivity rates and excessive employment rates. For example, mechanical engineering, which is a leader by labor productivity in most developed countries, rates low by this measure in Russia. Excessive and low-paid employment is also typical for budget-funded sectors. These sectors can be restructured to improve productivity rates, and some of their employees can move to other sectors, where their labor can be used more productively and where they will receive higher salaries.

Implementation of a demographic programme for higher fertility raises the issue of compatibility between maternal responsibilities and job responsibilities, which tend to compete for women's time and energy. Women have traditionally played a large role on the Russian employment market. Employment losses as women with children leave labor market should be counteracted by a wide variety of flexible forms of employment (part-time employment, flexible working schedules, working from home, etc.), as well as investments in childcare services and child education, which are very poorly developed at present. An environment, which enables today's well-educated, professionally qualified women to combine maternal responsibilities with active participation in economic and social life, is in the best interests of both the economy and women themselves, who, generally, are not keen to sacrifice their professional career. Average levels of education among Russian women are very high, and their departure from the labor market cannot be adequately compensated by immigrant work force. Also, women's salaries are an important anti-poverty tool for families with children. The last point is particularly important among factors that need to be taken into account by a pronatalist policy.

Russia currently has low employment levels among disabled individuals and members of their families, who care for them, and this offers another reserve for compensating labor deficits. In an ageing society, with relatively short healthy life expectancy, it is inevitable that people in working age have to spend more time caring for senior-aged and sick individuals. However, labor potential can be maximized through extension healthy life (reducing the disablement rate), development of a professional care sector for the disabled, and creation

of new jobs for people with restricted ability to work.

Russia has labor reserves, which it does not fully use, in its less well developed regions. Mobilization of these reserves depends on greater internal mobility and removal of obstacles to such mobility. Although there is already significant temporary labor migration, showing adaptation by people to new socio-economic realities, scales of migration to new permanent places of residence are not adequate to needs of urban and regional economies for re-distribution of the working-age population. Russia has a problem of structural unemployment, and migration is failing to provide self-regulation for local labour markets. Internal labor migration (leaving home for temporary work in another place) may be economically inefficient and engender undesirable social effects.

Generally speaking, more efficient use of dwindling and ageing human resources requires coherent actions to improve and strengthen a wide range of policies in the fields of employment, education, health, pensions, social infrastructure development, the family, migration, etc.

However, even if the country's human resources are put to best possible use in coming decades, they alone will not be sufficient to ensure rapid economic growth in the context of evolution of the demographic situation. International labor migration therefore emerges as the only way of alleviating quantitative and structural impact of dwindling human resources. The labor or foreign immigrants is already a condition for successful operation of the Russian economy, particularly in regions, which have achieved rapid rates of growth. According to expert estimates, Russia will need to attract about 15 million immigrants of working age to cover its human resource deficit in the period up to 2025.

As well as posing a threat to economic growth, Russian demographic trends also represent a challenge for social expenditures.

As the share of people of working age in the total population declines, there will be a steady increase in dependency pressure on those in employment. Although higher fertility, improved health and reduced mortality are undoubtedly beneficial for economic growth in the long term, and are purposes to be pursed per se, their attainment in the short term and medium term may be a factor resisting accelerated economic growth. If the optimistic demographic forecast is realized, total growth in pension payment expenses, health expenses and education expenses will rise to 8-10% of GDP, which is unaffordable for the Russian economy. This could lead to destabilization of the budget system, unjustified growth in tax pressure and, eventually, lower competitiveness of the Russian economy and slowdown of economic growth.

Greater social spending is unavoidable in the near future. The largest share of government social spending is on the pension system, and these spending commitments will become progressively greater as the population ages. Formulas currently used to determine size of the insurance and basic part of labor pensions and pension indexing methods are sufficient to ensure financial sustainability of the pension system, without change to the pension financing principles. But the price to pay for such sustainability is further decline of the wage replacement rate (the ratio of average employment pension to average salary). Low pensions undermine public trust in the pension system and force the government to seek other sources of funds for redistribution in favor of older age groups, sometimes to the detriment of other social groups, such as families with children. There is therefore increasing realization of the need to do everything possible to ensure a larger wage replacement rate in order to provide better living standards for retirees. As Vladimir Putin said in a speech in late 2007, replacement rate should be increased to 40% of salaries. But, unless the pension system is updated in a major way, that target, ensuring better living standards for the senior-aged population, will not be achievable and proper incentives for the working population will also be absent.

The pension system is not the only public social expenditures item, which is closely connected with demographic changes. Spending

on the public system of social services is also extremely important.

One of the major challenges for social institutions in the ageing society is radical reshaping of care for older people, including new and efficient establishments for temporary care, up-to-date and well-equipped homes for elderly people, public and private programmes for social services to older people, home care and various forms of joint leisure for retirees.

Development of the childcare system is no less important. The system is far from perfect at present, rendered services are poorly differentiated and do not answer existing demand for them. Some families find even kindergarten services unaffordable, and the terms and conditions, on which their services are provided, do not always match existing needs. The families cannot make up for public policy failures and inadequate social service market development, and society has to pay for it in growth of number of children without proper care, in a vulnerable situation, and decline of beneficial effects from socialization at young ages.

Distinction of two axes for design of strategic responses to demographic challenges helps us to understand the two types of problems, which these challenges present. On the one hand, there are issues of how to "repair" the demographic situation and, on the other hand, there are issues of how to adjust to what cannot be repaired. In fact, both axes are interrelated and overlapping.

If, for example, Russia is successful in attaining sustainable rise of fertility, this will be a sign of successful "demographic repairs". However, it will be a long time before children who are born today reach the labor market, and, moreover, birth of a second or third child may drive many women out of employment. So intensification of the economy is indispensable for adaptation to labor-force shrinkage.

Reduced mortality in middle-age groups will improve the situation on the labor market, but in a later period it will increase pressures on the pension system, which should have undergone reform by that time.

Compensatory international migration, if used as a tool for "demographic repairs", will help to fill or reduce demographic gaps due to population decrease, adverse changes in the age structure, and geographic population distribution. However, international migration is only a feasible solution if Russian society can become adjusted to it. This involves special efforts to change mass consciousness, social institutions and government attitudes.

Each of the above examples is indicative of the extremely important role of the demographic component as a driver for human development and all national economic and social development in coming decades. This role is increasingly (though somewhat belatedly) becoming clear to Russian society and its intellectual and political elite. The references to demography in the President's Message in 2006 (cited at the start of this section) have been followed by an upsurge of public and government attention to demographic issues in Russia. However, we are still at the very beginning of a long road. Design and implementation of an efficient strategy in response to demographic challenges is a highly complicated task. Its requires, at least, three components – political will, economic resources and intellectual capacity (appropriate knowledge). If any of the three components is lacking, all endeavors will be doomed to failure. At present the three components have not been properly harnessed, and the actual contribution from each of them fails to match the seriousness and complexity of the tasks to be addressed. Significance of the demographic issue among priorities of Russia's government and society has increased, but it does not yet seem to have been recognized as "the most acute problem for Russia today".