RUSSIAN PRESIDENTIAL ACADEMY OF NATIONAL ECONOMY
AND PUBLIC ADMINISTRATION (RANEPA)

International Laboratory on Political Demography
and Social Macro-Dynamics

CRITICAL 10 YEARS

DEMOGRAPHIC POLICIES OF THE RUSSIAN FEDERATION: SUCCESSES AND CHALLENGES

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CONTENT

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EXECUTIVE SUMMARY

The demographic situation in Russia has improved markedly in recent years. This is in large part due to the successful implementation of policy measures to support fertility, reduce harmful alcohol consumption, and improve the health care system. **In 2006-2012 Russia recorded the fastest increase in total fertility rate (TFR) in Europe**, and the second fastest in the world. TFR rose from 1.3 to 1.7 children per woman (30% increase). In absolute terms, the number of births in 2012 was 1,896 thousand, an increase from the 2006 value by 416 thousand children, as the crude birth rate for the period increased from 10.3 to 13.3 per 1000 (up by 29%).

Despite the recent positive dynamics of the birth rate, however, the potential for a demographic crisis is not over. In the coming years Russia will face the aftermath of the catastrophic decline of fertility of the late 1980s and the early 1990s. **In 10 years the number of women in the most active reproductive age (20–29 years, when almost two thirds of all births take place), will fall by almost half;** this will inevitably lead to a reduction in the number of births. Despite the recent increase in TFR to 1.7, this remains below the level for replacement. Given the sharp decline in the number of women of child-bearing age in the next generation, a considerable *further increase* in fertility will be necessary to stabilize Russia's population, especially since larger cohorts will be entering their 60s and 70s and thus increasing mortality as well.

Russia's mortality rate remains very high by world standards. Despite a significant reduction in mortality in 2005-2012, Russia still rates 22nd highest in the world according to crude death rate (CDR), mainly due to the **excessive mortality rate among working-age males**. The gap in life expectancy between men and women is huge: men's life expectancy is fully *12 years less* than that of women. Russia's CDR of 13.5 per 1000 in 2012 was higher than that in Mali, Burundi, or Cameroon; most importantly it remained higher than Russia's crude birth rate, so that without immigration the population will continue to decline.

Mortality of working age males is the key component of the situation. About one in five deaths in Russia is related to alcohol (about 400 thousand deaths per year). About 300 thousand deaths annually are due to diseases associated with tobacco smoking, and no less than 100 thousand deaths result from the consequences of drug use. Continuing deficiencies of the health care delivery system also contribute to Russia's relatively high mortality levels.

Russia is a major migration-recipient country. Russia's net migration rate has become consistently positive even without taking into account temporary (including labor) migrants, many of whom are actually long-term residents of Russia. Temporary labor migration is the most significant migration flow into the Russian Federation, as the Russian labor market remains attractive for the Russian-speaking population of the countries of the CIS. Educational migration also has significant scale. Yet, despite the huge potential of the education system, Russian trains only 80-90 thousand foreign students every year and it takes only 3% of the global market for educational services. Russia also experiences **considerable out-migration**. Since 1989, more than 1.2 million people have moved from Russia to foreign countries. As emigrants consist mainly of young educated and skilled people, and in addition is accompanied by the outflow of business and capital, stemming this emigration also forms a very important part of demographic strategy for Russia.

It is important to note that **there is no hope of fully solving the potential demographic crisis in Russia by relying mainly on immigration**. Compensating for Russia's projected fertility and mortality-based population losses through even extremely active promotion of immigration will be almost impossible - all CIS countries (the main demographic donors of Russia) are increasingly facing their own "demographic holes" associated with a sharp decline in their birth rates in the 1990s. As a result, smaller and smaller age cohorts will enter the labor market in the coming years in the CIS countries, leading to a significant reduction of their excess labor force and very likely reducing the migration flows to Russia.

The experts of the Working Group on Families and Children of the Open Government have calculated several **basic scenarios of demographic development of Russia**, including inertial, optimistic and pessimistic scenarios and the scenario corresponding to the goals stated in the "Concept of Demographic Policy of the Russian Federation," up through the year 2050. The inertial scenario shows that if no new measures are taken to support the birth rate and to reduce excessive mortality, the population will decrease to 140 million people by 2020 and to 113 million by 2050; the working-age population will decrease by 8.7 million by 2020, and by more than 26 million people by 2050. In the worst scenario, Russia's population could shrink to 100 million people by the early 2040s. In the optimistic scenario, a combination of effective measures to support the birth rate and reduce excessive mortality will help to bring Russia's population to nearly 155 million by 2040. Thus, the price of today's decisions on demographic policy could be as high as the lives of more than 50 million of our fellow citizens, that is, more than one third of the population.

At the moment, demographic policy in Russia is represented in a number of legal acts, the most important of which is the *Concept of Demographic Policy of the Russian Federation for the period up to 2025* (hereinafter Concept of Demographic Policy).

The Concept has played an important role in the development of Russian demographic policy, and consequently, in improving the demographic situation in Russia. However, it has been a while since the Concept was adopted, and the demographic indicators have changed, which implies the need for the new set of the demographic policy measures. Also, the target indicators on fertility, mortality and migration as stated in this Concept will not be sufficient to secure population stabilization (let alone growth) in Russia, given the forthcoming demographic dip, and therefore they should be revised.

Hence there is **a need for new work to develop concrete, evidence-based and updated targets for demographic policy** that are cognizant of the huge scale of the projected demographic dip, and which **will balance efforts to influence fertility, mortality and migration** in favorable directions.

In the current report we present a set of measures tried in various countries and studied in international sociology, which are very likely to have a positive impact on Russia's population. However, **the time frame for effective action is limited**. **The next decade is absolutely crucial**, as the proportion of people in the prime child-bearing years (aged 20-40 years old) will remain high for only another 5-7 years, after which it will be increasingly affected by the echo of the 1990s' demographic collapse.

The priority objectives of population policy in the next two decades should be to **raise the birth rate to replacement level** (about 2.1 children per woman), and to **reduce mortality to levels congruent with Russia's overall level of economic development**, especially targeting the extremely high yet preventable mortality of working-age males.

The data show that the reproductive attitudes of Russians are not static, and depend on their socio- economic situation. For a long time, sociologists and demographers of the European countries with successful population policies and high birth rates have analyzed the empirical data and had vigorous debates about exactly which social policies exert the greatest effect on fertility. In this case, **the potential for growth in the birth rate** in Russia is much higher than in most European countries, and measures to support families with children in Russia may give better results at a lower cost than in the OECD countries that implement large-scale family policies. Russia rates higher on both desired family size and adherence to traditional family values than most European countries, including some countries with higher fertility.

Evidence shows that when countries apply truly effective measures of family policy, spending for these purposes no less than 2% (and sometimes even 3–4%) of GDP, they can achieve a systematic fertility increase which is not limited to a bare 2–3 years' time span. In general, the birth rate in the developed world is substantially higher in countries with higher spending on family policy. European countries with higher fertility levels have reached a level of 1.8-2.0 children per woman at a cost of spending 3–4% of GDP on family policies –

provided that these funds are used effectively. Spending on family policy in Russia (calculated according to the OECD method), including the maternity capital, was 1.5 % of GDP in 2010, well below the 3 – 4% required to reach the level of 1.8 – 2 children per woman. The volume of payments to families with children in Russia (excluding maternity capital) in 2010 amounted to approximately 0.58 % of GDP, which is lower than in those countries with the most successful family policies, such as France or Sweden. In terms of payments to families with children Russia lags behind nearly all OECD countries.

One factor that may make **more efficient family policy** possible in Russia is that poverty in Russia is unusually high compared with OECD countries. There is a concentration of poverty among families with children, especially among large families and single-parent families. All of the most effective measures to support the birth rate would significantly reduce poverty levels among families with children.

According to experience and research, **the most effective way to raise fertility levels is to provide a combination of cash allowances and tax benefits for families with children**, together with government programs and laws to support women in combining work and child-bearing (access to the services of kindergartens, nannies, flexible work schedules for mothers). France, for example, which has one of the most broad-based programs of family support in Europe, has enjoyed steadily rising fertility for nearly two decades.

Allowances and tax benefits for families with children are considered, according to the research, the most effective measures to elevate fertility. However, in terms of payments to families with children, Russia lags behind nearly all OECD countries. Moreover, in most developed countries, child-payment systems alone are not sufficient to reach the highest levels of fertility.

Combining work and motherhood is the key to a successful population policy in the modern world. As a rule, in the demographically successful developed countries mothers with children under the age of 3 go to work more often than mothers with young children in developed countries with low birth rates. An effective system of early childhood care (kindergartens, nursery schools, etc.) is therefore an essential part of an effective policy to support the birth rate. Among all types of expenditure on family policy in OECD countries it is the cost of childcare services that best correlates with the level of fertility. Developing the childhood care system for children under 3 is particularly important. **All demographically successful countries in Europe have achieved high coverage of children under 3 with a free or subsidized childcare system**. However, in Russia there is insufficient access to such services due to the lack of places in the state kindergartens and high fees in non-governmental ones, which makes the latter unaffordable for most families. In 2009, the coverage of children up to 6 years old for pre-school education in Russia was only 58% (compared with about 90% in France).

Significant support for fertility increases can also result from **housing-related policies**, such as securing those families having 3 and more children with priority rights for socially-supported housing, the right to acquire housing at cost on interest-free mortgages, etc.

Rapid growth in life expectancy is possible in Russia, which is proved by the examples of historically close countries such as Estonia and Poland, as well as other countries of Central and Eastern Europe in the post-Soviet period. An analysis of gender and age differences in mortality from various causes in Russia and these countries shows that mortality can be reduced significantly by limiting the availability of strong alcoholic beverages (including especially illegal spirits) and tobacco.

In recent years, Russia has adopted legislation to implement most of the **key recommendations of the World Health Organization to reduce the harmful use of alcohol**. At the moment priority should be directed to securing the practical implementation of these laws, as well as to combating the illegal manufacture and trade of alcohol. With regard to tobacco control it is necessary not only to enforce the Act for Clean Air in public places (adopted in 2013) and other restrictions already adopted, but also to legislate a total ban on

tobacco advertising without any exception, and to increase excise taxes to the level of Eastern European countries.

Modernization of the health care system is also a potentially large-scale resource for mortality reduction in Russia, especially for middle and older age groups. One of the major barriers to the development of the Russian health care system is its lack of financing. In the more developed European countries (with markedly higher levels of GDP per capita), the share of health expenditure in GDP is approximately two times higher than in Russia. Thus, a real reduction of this gap requires an increase in the share of spending on health care in the Russian GDP by a significant amount. However, not all improvements require greater funding; there is also room for gains through greater efficiency in medical spending. Modern health care systems gain large cost savings from greater engagement of outpatient treatment as opposed to hospital care, and from a greater role for general practitioners and nurse practitioners in the treatment of patients.

The most important area for improvement is to accelerate the **implementation of evidence-based effective practices** through protocols and clinical practice guidelines in Russia, *e.g.* through harmonization with those in Europe, the USA, Australia, Canada, etc., as well as the motivation of health personnel to follow their use, including the motivation to abandon inefficient methods of diagnosis, prevention and treatment of diseases. The quality and availability of emergency medical care is also vital to reduce mortality. Mortality from cardiovascular diseases will undoubtedly benefit from increased availability of emergency medical assistance, especially for cardiovascular events (heart attacks, strokes). The number of such emergency care centers in most regions is not nearly sufficient.

In the Russian context, with its vast geographic territory, it is important to preserve **access to health care (including emergency care) in rural and sparsely populated areas**. This will require the preservation of obstetric units, and enhancing the empowerment of nursing staff.

In terms of **reducing mortality from cancer** the most efficient and financially viable approaches (in addition to anti-smoking measures) include mass screening for colorectal cancer and mass vaccination of girls under 16 years old against human papillomavirus (to reduce the incidence of cervical cancer).

Other effective evidence-based approaches include reducing and enforcing traffic speed limits and automatic speed control, campaigns to control drunken driving, the use of helmets, seat-belts and child restraints, bringing the road transport infrastructure in line with international safety standards, establishment of modern safety requirements for vehicles produced and imported into the territory of the Russian Federation, and provision of timely and high-quality emergency care for those involved in road accidents.

Russia's **migration policy** should aim to both eliminate the push factors and thus reduce emigration, and to promote and streamline processes of immigration, as well as stimulating internal migration towards the Eastern parts of the country. Migration policies should selectively attract the necessary categories of immigrants on the basis of cultural and qualification parameters, and maintain **annual net migration at a target level of 300 thousand people** as defined in the Concept for Demographic Policy. Our calculations show that without maintaining net migration at this level avoiding the severe negative scenarios for Russia's demographic future is impossible.

Reducing the emigration exodus is possible only through a radical change in the conditions for the private sector to reward entrepreneurship, and to raise the incomes of professionals and skilled workers to compete with opportunities in Europe. This will require reducing bureaucratic barriers to business development, the elimination of corruption pressures on people, creating jobs and opportunities for self-fulfillment in the professional and skilled labor markets, and improvements in the investment climate.

The recognition of dual citizenship and the **simplification of procedures** for the preservation of Russian citizenship to emigrants and their descendants could also strengthen

Russia's ties with compatriots, as well as attract an additional number of compatriots to Russia. It would be helpful to improve the current **program of repatriation** enacted in Russia in 2007, by providing improved access to Russian citizenship, housing for the participants, simplification of the procedures needed to provide land for housing and agriculture, and tax deductions for opening businesses, especially in geopolitically important (particularly border) territories.

This report focuses on fertility, mortality, and migration at the national level in the Russian Federation. However, **demographic change is highly sensitive to local social contexts.** Factors such as rural/urban differences in base fertility and mortality levels and in responses to population policies, trends in internal urbanization and migration, and regional differences in demographic behavior due to culture, religion, and local conditions all can affect Russia's future population trajectory. This report touches briefly on these matters in the appendices. They will be further discussed in future revisions of this report and in further research at the RANEPA Research Laboratory in Political Demography and Social Macro-Dynamics.

In sum, there are a large number of policies that could raise fertility, reduce mortality, and optimize migration in Russia. Some are a matter of making more efficient use of resources or changing laws; others involve significant increases in social spending, though these costs would be offset by keeping more men over 50 and women with children in the active labor force. However, unless a broad-based strategy of diverse policies to boost fertility and reduce mortality are undertaken quickly, Russia's population will likely be reduced by several tens of millions over the next three decades. **Only prioritized and urgent implementation of new and effective demographic policy measures** can allow for retaining the successful achievements of the last few years and preventing a very significant population loss due to the demographic dip of the 1990s.

This opportunity will be irreversibly lost in 10 years.

SECTION I.
CURRENT DEMOGRAPHIC SITUATION

The demographic situation has improved notably in Russia since 2005, largely through the implementation of population policies, anti-alcohol measures, and healthcare system improvements.

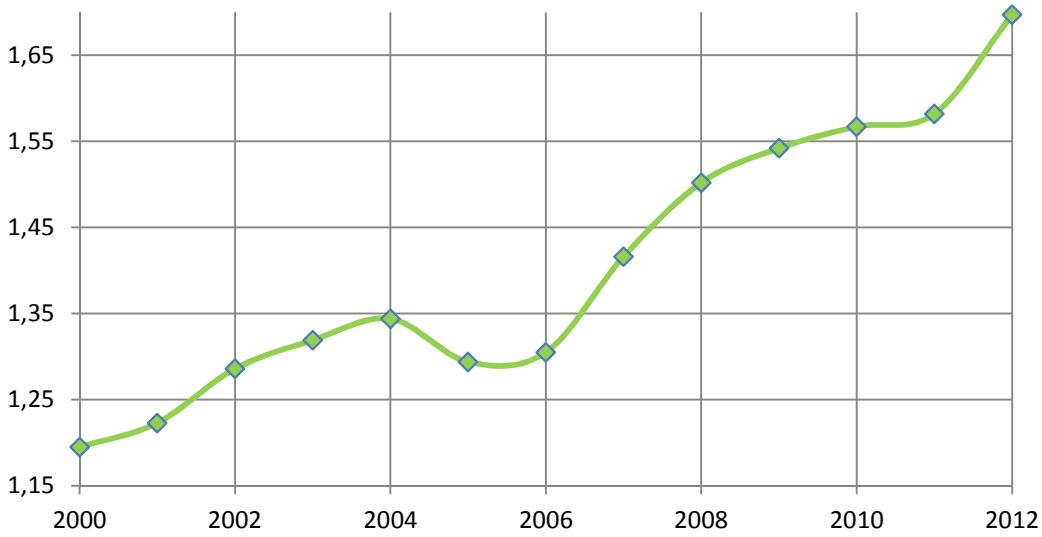
Natural population decrease has slowed down from 687,000 in 2006 to the period low of 2,500 people in 2012. Preliminary data for 2013 shows the first natural increase since 1991. Nationwide population stabilized at 143 million people, while the Concept of Demographic Policy in Russia until 2025 (hereinafter referred to as the *Concept of Demographic Policy*) previously had targeted this level by 2015.

For the first time since 1992, when including net migration, Russia finally saw a notable population *increase* in 2011 and 2012[1].

1.1. Birthrates

Over 2006–2012, Russia posted the strongest gains in Europe and second fastest growth globally in total fertility rate (TFR) – from 1.3 to 1.697[2] births per woman, or up by 30%.

Fig. 1.1. Dynamics of the Total Fertility Rate (births per woman) in Russia, 2000–2012[3]



As a result, Russia jumped from 35th to 12th in Europe in terms of its TFR. In absolute figures, live births reached 1,902 thousand children in 2012, which is 416 thousand births above the level of 2006 (up 28%). The crude birth rate over this period rose to 13.3 per 1,000 people from 10.3[4]. Back in 2006, age structure determined nearly 50% of the TFR change with the other half driven by the increase in birthrates; but since 2009 TFR growth has been totally attributed to

[1] *Socio-economic situation in Russia. January 2013*. Moscow: Rosstat, 2013. P. 297. [Sotsial'no-ekonomicheskoye polozheniye Rossii].

[2] Total fertility rate. Updated 17.01.2013. Rosstat data. URL: http://www.gks.ru/free_doc/new_site/population/demo/demo27.xls. Accessed: 28.04.2013.

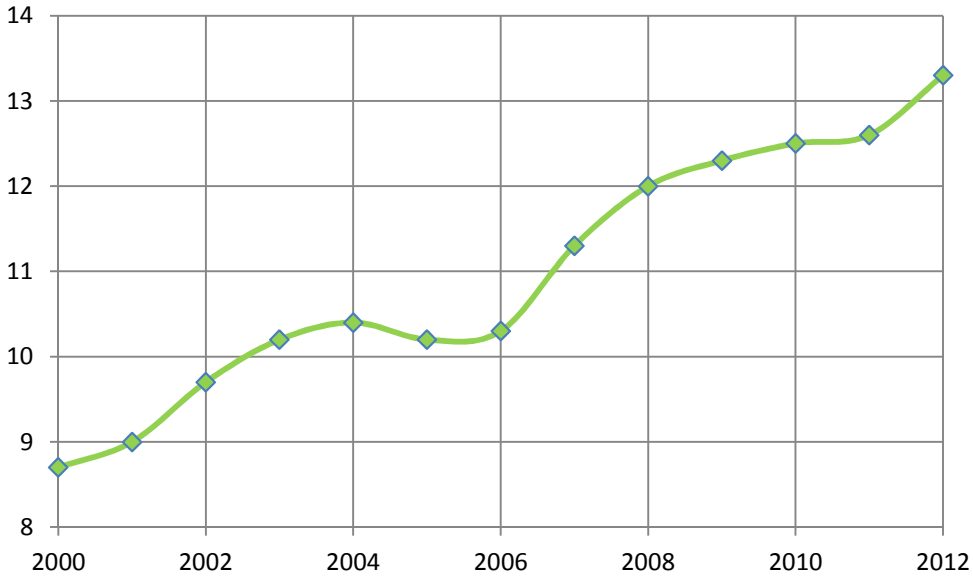
[3] Total fertility rate. Updated 17.01.2013. Rosstat data. URL: http://www.gks.ru/free_doc/new_site/population/demo/demo27.xls. Accessed: 28.04.2013; Total fertility rate. Rosstat data. http://www.gks.ru/free_doc/new_site/population/demo/progn6.htm. Accessed: 28.04.2013.

[4] *Socio-economic situation in Russia. January 2013*. Moscow: Rosstat, 2013. P. 297. [Sotsial'no-ekonomicheskoye polozheniye Rossii].

increases in births per woman. Statistical analysis shows that increased fertility rates came exactly from second and further childbirths[5].

Following some slowdown in 2008–2011, an upsurge in fertility observed in 2012 confirmed the efficiency of the newly introduced measures.

Fig. 1.2. Dynamics of the Crude Birth Rate (per thousand) in Russia, 2000–2012[6]



Unfortunately, this phenomenon has remained understudied by sociologists and demographers so far. A tentative explanation links this resumed growth, which continues into 2013, with some regional measures such as land allocations after third childbirth, introduction of the regional maternity capital, and allowances to families with three or more children.

Attributing this fertility growth to the so-called "timing shift" became quite popular in recent years; and it seemed reasonable to suppose that many women, offered the maternal capital benefit for having a second child, were simply acting to move up births that they would have had anyway in the following years. However, statistics on birth intervals available for 35 Russian regions convincingly demonstrate the weakness of this reasoning. If the fertility increase had only occurred due to timing shifts, we would expect shorter intervals between the first and second childbirths. However, this interval actually *widened* considerably[7]. In addition, timing shifts would presumably move fertility to younger age groups, but fertility, quite the opposite, rose more among older women. Based on statistics available for 35 Russian regions, average mother's age at childbirth of any order increased year-on-year, and to even a greater degree in 2007-2011 than in 2006 relative to 2005[8].

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[5] Rosstat. *Analytical report on the results of the sample survey of reproductive plans of population* [Rosstat. Analiticheskiy otchet po itogam vyborochnogo nablyudeniya reproduktivnykh planov naseleniya]. 2012. Published: 24.01.2013. URL: http://www.gks.ru/free_doc/2012/demo/orp.doc. Accessed: 09.08.2013.

[6] *Socio-economic situation in Russia. January 2013* [Sotsial'no-ekonomicheskoye polozheniye Rossii. Yanvar' 2013 goda]. Moscow: Rosstat, 2013. P. 297; Births, deaths and natural increase, Rosstat routine table. URL: http://www.gks.ru/free_doc/new_site/population/demo/demo21.xls. Accessed: 28.04.2013.

[7] See Rosstat. *Analytical report on the results of the sample survey of reproductive plans of population* [Rosstat. Analiticheskiy otchet po itogam vyborochnogo nablyudeniya reproduktivnykh planov naseleniya]. 2012. Section 4, tables 23-24.

[8] Arkhangelsky V. Using statistical and sociological information in assessing the effectiveness of population policies on fertility [Ispol'zovaniye statisticheskoy i sotsiologicheskoy informatsii pri otsenke rezul'tativnosti demograficheskoy politiki v otnoshenii rozhdayemosti]. *Innovative development of the Russian economy: regional diversity: Sixth International Scientific Conference*. Moscow: Moscow State University, Faculty of

Second and third births have increased most notably in Russia[9]. This is evidenced by considerable TFR gains for second childbirths in 2007 (for third births the absolute increase of the indicator was less profound – 0.027 vs. 0.071, but the relative increase was even higher – 27.6% vs. 17.6%), while fertility rates for first births showed zero growth. We can assume with a certain degree of conviction that fertility rate changes for second and subsequent births in 2007–2011 largely resulted from the new population policies implemented in Russia since 2007. Over the full period 2007–2011, TFR for second and subsequent births increased by 0.247—from 0.543 in 2006 to 0.790 in 2011—a remarkable gain of 45%.

Thus, the support given to families with second and third children evidently resulted in a substantial increase in the birthrate after 2006, rather than merely a short-lived forward shift in birth-giving.

We arrive at similar results if we consider the monthly fertility changes observed in Russia over the period after 2000 (as illustrated by Figure 1.2a). Monthly births increased materially at the beginning of the period under consideration (in 2001–2003); however, this growth virtually came to a standstill in 2003–2006 as it fluctuated within a range of 110–140 thousand births. The situation took another notable turn only in 2007, when the Federal Law #256-FZ "On Additional Measures of State Support of Families with Children" of December 29, 2006, which introduced the maternity (family) capital benefit, came into force on January 1, 2007.

To assess the influence of the newly introduced maternity capital on the birthrate changes in 2007 it makes sense to figure out the month when this measure should have had a visible effect on the births dynamics. At first glance, it would seem logical to expect the initial signs of its influence on the number of second births only after September–October 2007 taking into account the law's effective date (January 1, 2007). However, we have good grounds to state that the influence of maternity capital could and should have manifested itself somewhat earlier.

Indeed, we can reasonably suppose that in the first place introduction of maternity capital influenced not so much the decision of some families to have a second child as the refusal of some women in their second pregnancy to have an abortion. Since most women make abortion decisions in the first two months of pregnancy, introduction of maternity capital should have made its first strong impact on the women who had gotten pregnant in November–December of 2006. Hence, maternity capital should have influenced the number of births in July–August 2007[10].

In fact, the abortions-to-live births ratio was down by 14% in 2007 (a record fall in all modern Russian history) serving as the first proof of the idea that the introduction of maternity capital benefits in 2007 affected birthrate dynamics mainly through promoting decisions against abortions. The fact that just a year earlier, in 2006, abortions had exceeded live births (106 to 100)[11] points to the massive potential of abortion rate decline in 2007 to affect the live birth rate. That same year, also for the first time in modern Russian history, live births outnumbered abortions (100 to 92)[12].

We now move to discussing Figure 1.3 in more detail. The Figure below shows that in January–June 2007 crude births still hovered in the range common for Russia in 2003–2006 (110–140 thousand births per month). In July–August 2007 (exactly at the time when first effects of maternity capital introduction should be expected), the birthrate in Russia climbed considerably above this range for the first time in recent years. At the same time, whereas the birthrate had previously fallen to 110 thousand births or below, this time the decrease was

Economics, 17–19 April 2013: Collected articles. Volume 1. Ed. by A. A. Auzan, V. P. Kolesova, L. A. Tutova. Moscow: WP-Press, 2013. P. 777–785.

[9] See, for example: Zhdanov D., E. Andreev, A. Yasilioniene. Half a century of changes in fertility in Russia [Polveka izmeneniy rozhdayemosti v Rossii]. *Demoscope* 447–448 (December 2010).

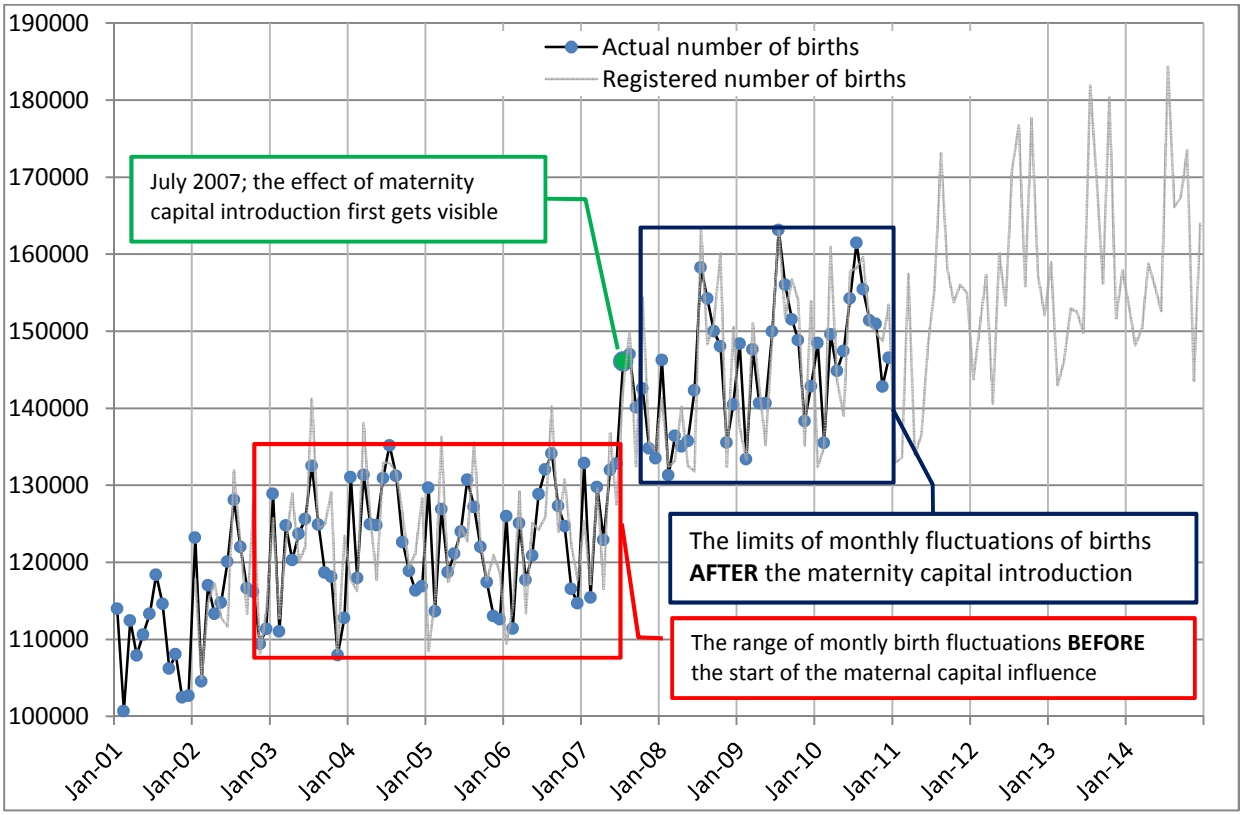
[10] Perhaps an additional factor that effect of the maternal capital could start as early as July 2007 was that the relevant bill was introduced by the State Duma in November 2006. – See: http://izvestia.ru/news/387930.

[11] Number of abortions per 100 live births, 1960-2007 *Demoscope* 439-440 (2010).

[12] *Ibid*.

limited to 130 thousand births. We note that the latter figure was still well above the average numbers of the period between 2003 and 2006.

Fig. 1.3. Actual and registered number of Births per Months in Russia, January 2001 – December 2014[13]



So, in July–August of 2007 Russia's monthly birthrate moved from the range of 110–140 thousand to 130–160 thousand births just in two months, following the enactment of the maternity capital law. It stayed within this new range through 2009–2010 and climbed above it in 2011–2012 after the adoption of a new childbirth support package.

Rather often, we come across claims that maternity capital had no effect on fertility increase in Russia at all. The argument is that during the second half of the 2000s fertility was on the rise not only in Russia, but also in virtually all European countries with low or extremely low birthrates in late 1990s. Moreover, "the lower was the TFR downfall, the more considerable was the subsequent bounce"[14] with no maternity capital initiatives in other countries. This leads to the conclusion that "country-specific fertility dynamics over the past decade do not show any significant relations, which could allow one to definitely attribute the changes to economic successes or socio-economic state policies pursued"[15].

Considering such statements, we need to note that maternity capital introduction resulted in a fertility increase more than just comparable in scale to the gains observed in other European countries over the same period. According to Figure 1.4, the fertility rise in Russia following

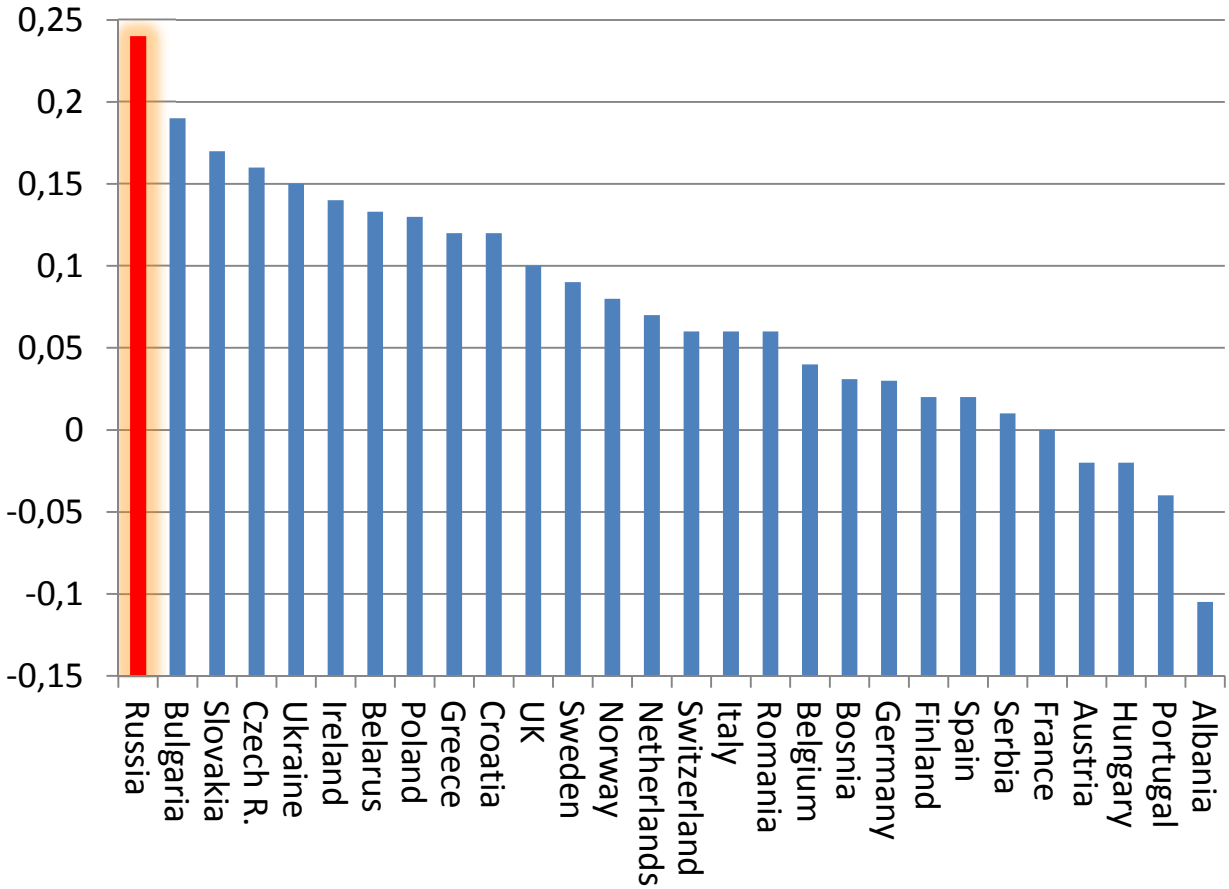
[13] Data source: Registered number of births – (live data) [Chislo zaregistrirovannykh rodivshikhsya (operativnyye dannyye)]. Moscow: Federal State Statistics Service, in 2014. www.gks.ru. Actual number of births – Human Fertility Database, Max Planck Institute for Demographic Research (Germany) and Vienna Institute of Demography (Austria), www.humanfertility.org.

[14] Zakharov S. What will be the birth rate in Russia? [Kakoy budet rozhdayemost' v Rossii?]. *Demoscope* 495–496 (2012). URL: http://www.demoscope.ru/weekly/2012/0495/demoscope495.pdf.

[15] *Ibidem*. Actually, France and Sweden have had consistently higher fertility than other European countries, and this is usually attributed to their socio-economic state policies; so this statement is just wrong. See these analyses with respect to France (http://www.demographic-research.org/volumes/vol19/16/19-16.pdf) and Sweden: (http://www.demogr.mpg.de/papers/working/wp-2005-009.pdf).

the maternity capital introduction was not trivial – in fact, Russia outstripped (and by far at that) all large European countries with populations of 3,000,000 or more.

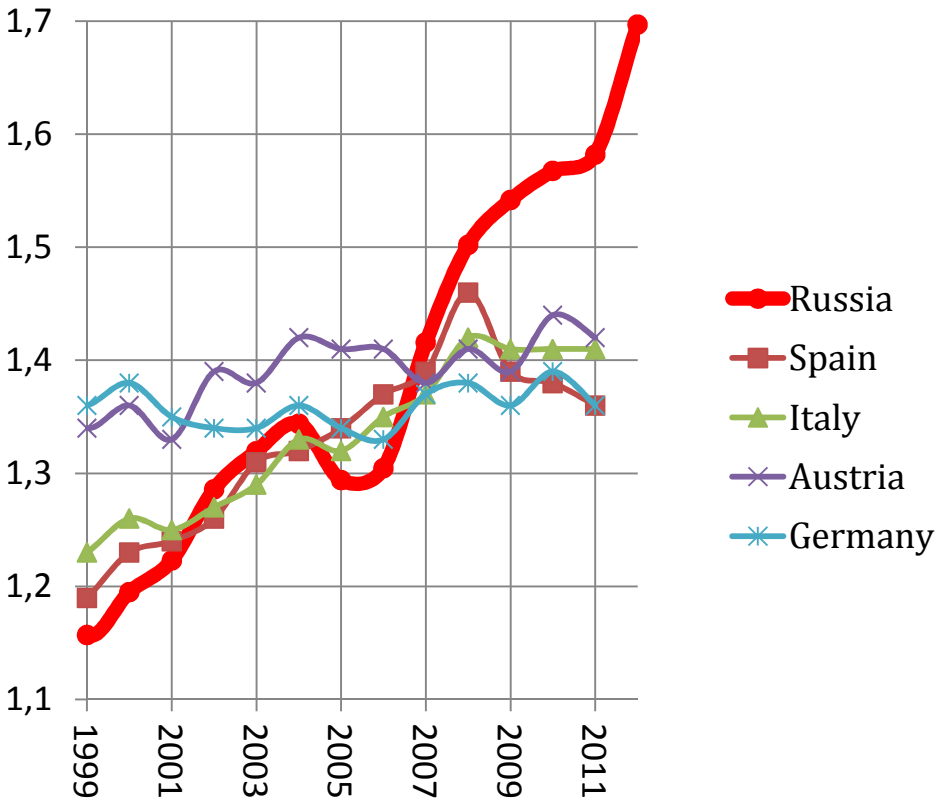
Fig. 1.4. Increase in the Total Fertility Rate (births per woman) in the Countries of Europe in 2006–2009



Data source: World Bank. World Development Indicators Online. Washington, DC: World Bank, 2013. URL: http://data.worldbank.org/indicator/ SP.DYN.TFRT.IN.

It would also make sense to compare the birthrate dynamics in Russia after 1999 with those of the Western Europe countries that had the lowest birthrates back in 1999 (see Figure 1.5). The diagram shows that Russia's TFR in 1999 was below even the lowest rates in Western Europe. Indeed, fertility rates climbed in 1999–2006 in all of these countries. The five countries under consideration moved into the range of 1.3–1.4 births per woman by 2006 and fertility rates stabilized further on within the limits of 1.35–1.45. Apparently, such countries can reach this range, rather uppermost, only through improving economic situation, and the interval of 1.35–1.45 presents some kind of attractor. The same Figure demonstrates that the introduction of maternity capital helped Russia to raise its fertility rate in 2007–2008 to a completely new level, beyond the low European attractor.

Fig. 1.5. Dynamics of Total Fertility Rate (births per woman) in Russia and Some Low-Fertility Western European Countries, 1999–2011[16]



Data sources: World Bank. World Development Indicators Online. Washington, DC: World Bank, 2013. URL: http://data.worldbank.org/indicator/ SP.DYN.TFRT.IN.

Nevertheless, Russia's TFR remains substantially below both the level of simple population replacement (2.1 births per woman) and its fertility rate of 1990 (1.89). According to the sampling surveys of reproductive life plans[17], the expected number of children (1.92 for both men and women) also falls short of the level needed for replacement of the population and the target fertility rate set by the *Concept of Demographic Policy* (1.95).

Single-child families still prevail in the Russian society and account for almost 2/3 of all households with children; this eventually means inadequately fulfilled potential for second, third, and subsequent order births.

[16] Data sources: World Bank. *World Development Indicators Online*. Washington, DC: World Bank, 2013. URL: http://data.worldbank.org/indicator/ SP.DYN.TFRT.IN; Total fertility rate. Updated 17.01.2013. Rosstat data. http://www.gks.ru/free_doc/new_site/population/demo/demo27.xls. Accessed: 28.04.2013; Total fertility rate. Rosstat data. http://www.gks.ru/free_doc/new_site/population/demo/progn6.htm. Accessed: 28.04.2013.

[17] Rosstat. *Analytical report on the results of the sample survey of reproductive plans of population* [Rosstat. Analiticheskiy otchet po itogam vyborochnogo nablyudeniya reproduktivnykh planov naseleniya]. 2012. Published: 24.01.2013. URL: http://www.gks.ru/free_doc/2012/demo/orp.doc. Accessed: 09.08.2013.

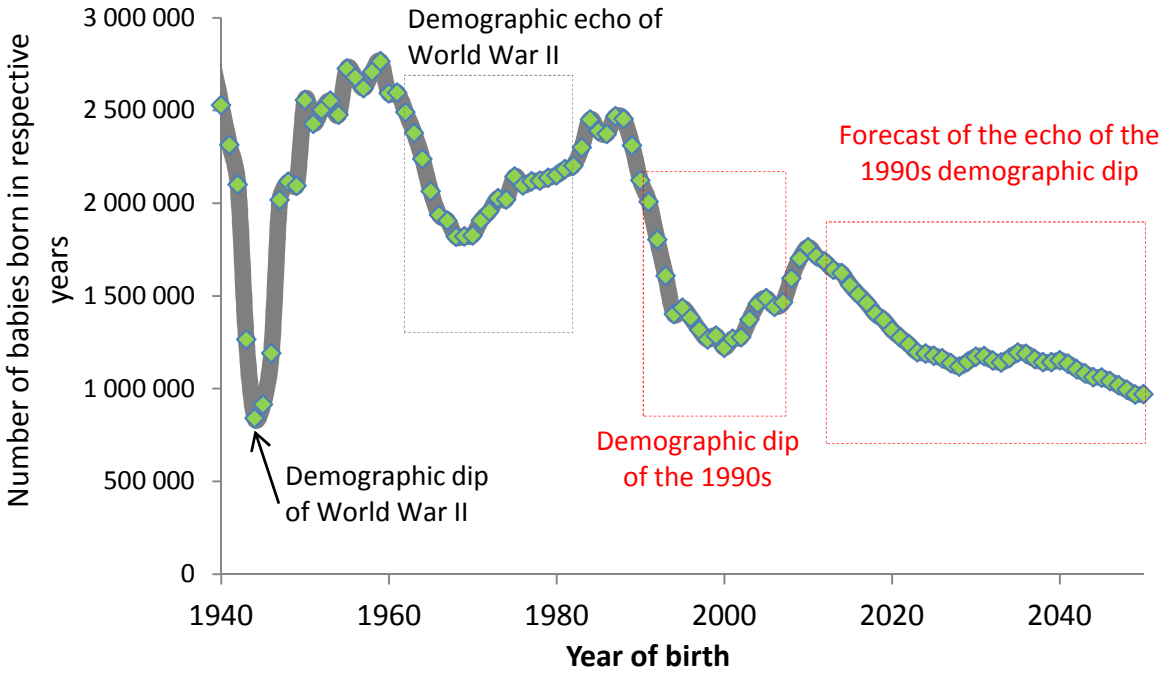
1.2. Imminent demographic dip

Despite the current upward fertility trends, the demographic crisis is not yet over and Russia is facing new challenges.

The major problem is that in the coming years Russia will face the consequences of the catastrophic birthrate collapse seen in the late 1980s and early 1990s (i.e. the consequences of the so-called demographic dip of the 1990s)[18].

We have to emphasize the unprecedented scale of the upcoming demographic dip, even more significant—because it will be sustained much longer—than the post WW II demographic crisis (see Figure 1.6). In other words, the number of Russians that were not born due to the fertility collapse in late 1980s and early 1990s is several times higher than the number of Russians that were not born as the result of WW II.

Fig. 1.6. Demographic Dips of the Second World War and the 1990s in comparison. Number of newly born Russians per years[19]



The young people born in the early 1990s – the least numerous generation in the postwar period – are now entering their childbearing years. In Russia today, the number of 15-year-olds is only half the number of 25-year-olds. The number of women in their active childbearing years (age 20–29), who account for almost 2/3 of total births nationwide, will almost halve in a decade's time; this will inevitably lead to a marked reduction in births.

1.3. Mortality

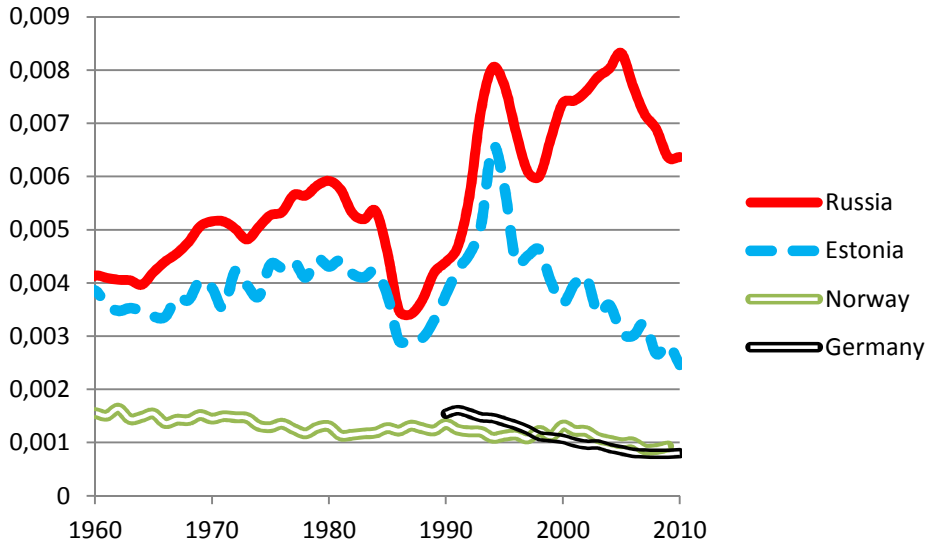
Russia's demographic crisis has two parts. The first is a low number of births; as we have just noted, while there has been a recent uptick in fertility, the imminent sharp decline in young women of child-bearing age means that the 'birth dearth' will probably decline. The second part is extraordinarily high mortality for an industrialized middle-income country. Russia has a rather high death rate by global standards, and the primary problem here lies not only in an ageing population but in extremely high mortality rates among working-age men. Men aged 30–70 years old account for approximately one third of excessive deaths among

[18] A demographic dip usually means a decrease in births due to smaller cohorts entering childbearing age compared to preceding generations.

[19] Calculations by Justislav Bogevolnov based on the Federal State Statistics Service data.

males. According to the WHO data, if this situation remains unchanged, four out of every ten male school-leavers in Russia will not live until their retirement age, as against only one in Albania, Syria, or the Gaza Strip[20].

Fig. 1.7. Mortality of Russian males aged 25–40 years is one of the highest in the world



Russia ranks 44th globally in terms of per capita GDP, but only 145th by life expectancy for men, falling behind dozens of far poorer countries such as Tajikistan, Yemen, Pakistan, Bangladesh, or Honduras[21]. Some regions with a deeply depressing demographic situation (Amur, Pskov, Sakhalin, Smolensk, Tver Oblasts, etc.) compare by male life expectancy (58–59 years) with Sudan, Eritrea, Ethiopia, or Senegal, while life expectancies of 53–54 years in Komi-Permyak Okrug, Chukotka Autonomous Okrug, and Tyva Republic are similar to those of the least developed African countries such as Niger, Benin, or Malawi.

Mortality for women is closer to normal for countries with Russia's level of per capita GDP. There is thus a tremendous gap of 12 years in life expectancy for men and women. This gap reaches 14 years in some regions with the most unfavorable demographics (for example, in Bryansk, Novgorod, Ryazan, and Tver Oblasts) and exceeds 16 years in Komi-Permyak Okrug. Despite a notable decrease in mortality seen in 2005–2012, Russia still ranks 22nd in the world by mortality rate,[22] with extremely high mortality in working-age men being the major reason behind this.

Approximately every fifth death in Russia, or about 400,000 deaths annually, is alcohol-related[23]. Smoking-related diseases add around 300 thousand deaths per year[24] and drug-use

[20] *Demographic Yearbook of Russia* [Demograficheskiy yezhegodnik Rossii] *2010*. Moscow: Rosstat, 2010. P. 182; World Bank. *World Development Indicators Online.* Washington, DC: World Bank, 2013. http://data.worldbank.org/data-catalog/world-development-indicators. Cited on 09.08.2013.

[21] Natural movement of population in the regions of the Russian Federation in January-December 2010. Preliminary results for the 12 months of 2010. Moscow: Rosstat, 2011; World Bank. *World Development Indicators Online*. Washington, DC: World Bank, 2013. URL: http://data.worldbank.org/data-catalog/world-development-indicators. Cited on 09.08.2013.

[22] World Bank. *World Development Indicators Online.* Washington, DC: World Bank, 2013. URL: http://data.worldbank.org/data-catalog/world-development-indicators. Cited on 09.08.2013.

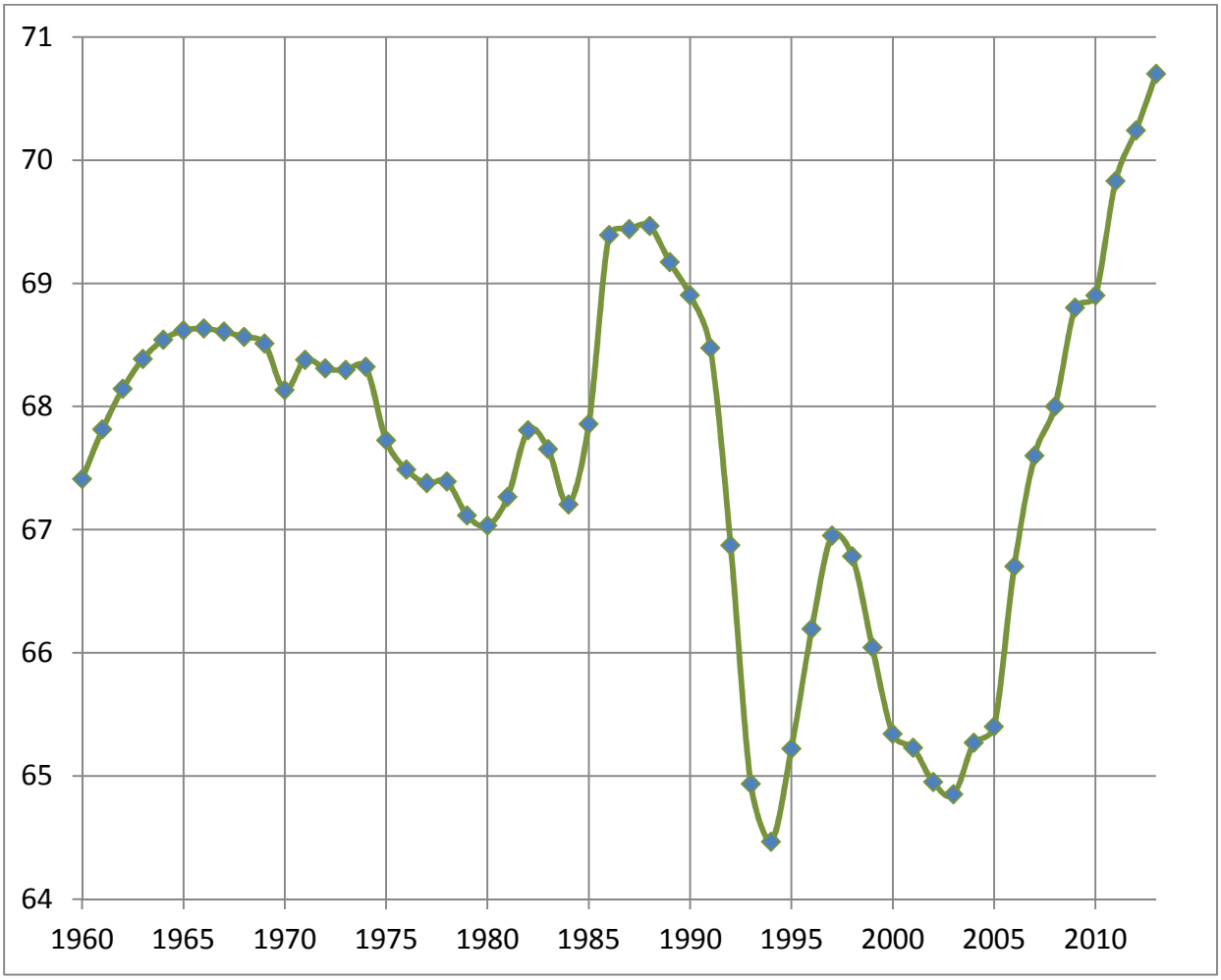
[23] See, for example, Demin A., Korotayev A., Khaltourina D. *Alcohol abuse in the Russian Federation: socioeconomic consequences and countermeasures* [Zloupotrebleniye alkogolem v Rossiyskoy Federatsii: sotsial'no-ekonomicheskiye posledstviya i mery protivodeystviya]. Moscow: Public Chamber of the Russian Federation, 2009.

[24] Zaridze D. G. et al. Smoking - the main reason for the high mortality of Russians [Kureniye – osnovnaya prichina vysokoy smertnosti rossiyan]. *Vestnik RAMN* 9 (2001): 40–45; Gerasimenko N., Zaridze D., Sakharov G.

effects cause at least 100,000 deaths[25]. Inadequate quality of medical care makes another hefty contribution.

From 2006 through the present, mortality has declined and life expectancy has grown; indeed the last 7 six years have seen the greatest gains in life expectancy since 1965 (see Figure 1.8). Much of this gain stems from anti-alcohol measures being introduced since 2006. Mortality in working-age men declined more than 20% between 2005 and 2009, largely due to these measures.

Fig. 1.8. Life expectancy at birth in Russia, years, 1960–2013



The quality of medical services system has also made progress, as evidenced by the fact, for example, that infant mortality dropped by almost 15% over the period 2006–2012.

Tables 1.1 and 1.2 compare male and female mortality rates per 100,000 people in Russia and Germany in 2008 by cause of death. We have selected Germany as a benchmark Western Europe country that exemplifies the differences in death rates and causes between Russia and the West. Comparing male mortality rates in Russia and Germany clearly indicates

Health or Tobacco: Facts and Figures [Zdorov'ye ili tabak: Tsifry i fakty]. *Proceedings of the Forum "Health or Tobacco?"*. Moscow, 2007; Maslennikov G., Oganov R. Medical and socio-economic damage caused by tobacco smoking in the Russian Federation: circulatory system diseases [Meditsinskiy i sotsial'no-ekonomicheskiy ushcherb, obuslovlennyy kureniyem tabaka v Rossiyskoy Federatsii: bolezni sistemy krovoobrashcheniya]. *Profilakticheskaya meditsina* 3 (2011): 19-27.

[25] See, for example, Khaltourina D, Korotayev A. *Russian cross: factors, mechanisms and ways to overcome the demographic crisis in Russia* [Russkiy krest: faktory, mekhanizmy i puti preodoleniya demograficheskogo krizisa v Rossii]. Moscow: URSS, 2006.

the leading contribution of circulatory system diseases and external causes to Russia's high male mortality. According to the data available, at least 38% of male deaths in Russia are preventable, including 18% of total deaths from cardiovascular diseases, 12.7% of deaths due to external causes, and 2% of deaths from diseases of the respiratory system.

The substantial contribution of alcohol to the tragically high mortality listed as due to external causes (homicide, suicide, accidents, drowning and submersion, etc.) in Russia is well known, and has been substantiated by analysis of correlates of mortality dynamics[26], results of forensic autopsies[27], and case-specific retrospective longitudinal analysis of mortality[28]. Therefore, despite a certain decline of deaths listed as alcohol-related from 2006, statistics suggest that alcohol remains a huge contributor to Russia's high male mortality. Also, various studies confirm that mortality rates correlate not so much with alcohol consumption in general, but rather with consumption of spirits (or hard liquors), both legal and illegal[29]. People consuming spirits usually take considerably more alcohol at once compared to weaker beverages such as beer or wine. Consumption of large alcohol doses per occasion boosts the probability of death due to heart diseases, hypertension, cerebral hemorrhage, accidents, assaults, and so on. At the same time, the toxicity of illegal spirits compares to that of legal liquor[30].

[26] See, for example, Nemtsov A. *Alcohol History of Russia: the recent period* [Alkogol'naya istoriya Rossii: noveyshiy period]. Moscow: Librokom, 2009.

[27] Tischuk E. in *Zdravookhraneniye Rossiyskoy Federatsii* 2 (1997): 34−36; Zaridze D *et al.* Alcohol poisoning is a main determinant of recent mortality trends in Russia: evidence from a detailed analysis of mortality statistics and autopsies. *International Journal of Epidemiology* 38/1 (2009): 142–153.

[28] *Policies to control mortality crisis in the transition period* [Politika po kontrolyu krizisnoy smertnosti v perekhodnyy period] / Ed. by V. Shkolnikov, V. Chervyakov. Moscow: UNDP, 2000. P. 117; Leon D. *et al.* Hazardous alcohol drinking and premature mortality in Russia: a population based case-control study. *Lancet* 369/9578 (2007): 2001–2009.

[29] See, for example, Demin A., Korotayev A., Khaltourina D. *Alcohol abuse in the Russian Federation: socioeconomic consequences and countermeasures* [Zloupotrebleniye alkogolem v Rossiyskoy Federatsii: sotsial'no-ekonomicheskiye posledstviya i mery protivodeystviya]. Moscow: Public Chamber of the Russian Federation, 2009.

[30] Nuzhnyi V. P., Savchuk S. A. Alcohol mortality and toxicity of alcohol [Alkogol'naya smertnost' i toksichnost' alkogol'nykh napitkov]. *Partnery i konkurenty* 5 (2005): 18−26; 6 (2005): 27−35; 7 (2005): 24−31; 8 (2005): 15−21.

Table 1.1. Tabular numbers of excess male deaths in the age below 70 in Russia (2008) in comparison with Germany (2007), per 100 000 dead in all ages and from all the causes

Age	Infectious and parasitic diseases	Neoplasms	Cardiovascular diseases	Respiratory diseases	Diseases of the digestive system	Other diseases	External causes	All causes
0	30	3	6	65	4	400	53	**561**
1-4	12	11	0	18	2	44	90	**177**
5-9	3	5	1	6	1	21	84	**121**
10-14	1	6	4	3	1	24	112	**151**
15-19	6	14	23	11	6	29	436	**525**
20-24	51	15	66	25	36	68	878	**1139**
25-29	208	22	225	79	131	174	1316	**2155**
30-34	312	36	480	146	241	262	1554	**3031**
35-39	273	56	693	185	274	255	1397	**3133**
40-44	247	89	1147	245	291	243	1484	**3746**
45-49	250	131	1701	302	259	208	1442	**4293**
50-54	216	212	2409	360	226	169	1388	**4980**
55-59	141	256	3274	370	216	88	1146	**5491**
60-64	66	-68	3860	275	153	-69	828	**5045**
65-69	-16	-559	4203	178	-16	-307	527	**4010**
0-69	**1800**	**229**	**18092**	**2268**	**1825**	**1609**	**12735**	**38558**

Legend

More than 1000 | 500-1000 | 300-500 | 100-300 | 50-100 | Less than 50

Note: Tables compiled by the HSE Institute of Demography.

The three major reasons behind excessive mortality from diseases of the circulatory system are high levels of spirits consumption, one of the highest levels of tobacco consumption/exposure globally, and poor management of cardiovascular diseases (including prevention, diagnosis, and treatment) that fails to conform to best international practices. Moreover, we can attribute elevated mortality from diseases of the respiratory system among men of 40-60 years to the smoking epidemic in Russia, too.

Table 1.2. Tabular numbers of excess female deaths in the age below 70 in Russia (2008) in comparison with Germany (2007), per 100 000 dead in all ages and from all the causes

Age	Infectious and parasitic diseases	Neoplasms	Cardiovascular diseases	Respiratory diseases	Diseases of the digestive system	Other diseases	External causes	All causes
0	26	2	5	53	2	289	46	**423**
1-4	11	10	1	16	1	35	62	**136**
5-9	2	7	2	8	1	26	45	**91**
10-14	0	3	1	3	0	11	56	**74**
15-19	3	12	11	6	5	23	154	**214**
20-24	26	17	16	14	15	28	182	**298**
25-29	74	31	64	31	54	60	257	**571**
30-34	88	61	124	46	99	79	285	**782**
35-39	76	79	197	55	133	80	300	**920**
40-44	60	111	326	58	140	65	320	**1080**
45-49	50	93	489	61	146	62	316	**1217**
50-54	36	79	829	56	181	60	327	**1568**
55-59	17	98	1523	45	252	83	328	**2346**
60-64	-4	-83	2220	4	177	30	256	**2600**
65-69	-37	-130	3841	-13	122	-67	237	**3953**
0-69	**428**	**390**	**9649**	**443**	**1328**	**864**	**3171**	**16273**

Legend

More than 1000 | 500-1000 | 300-500 | 100-300 | 50-100 | Less than 50

Note: Tables compiled by the HSE Institute of Demography.

In Russia, excessive mortality among women compared to that in Germany amounts to only 16%, with external causes playing a far less significant role. Excessive deaths from diseases of the circulatory system is the main difference, and these deaths are concentrated in elder age groups as compared to men. This suggests that the major potential of reducing mortality in Russian women lies in the area of medical care improvements.

1.4. Migration

Russia is a net migration recipient country, as immigration outnumbers emigration, even excluding temporary – including labor – migrants, many of whom de facto end up residing in Russia.

Temporary labor migration represents the single largest international migration flow into the Russian Federation. Russia's labor market remains attractive for able-bodied workers from the CIS member countries.

In 2012, Russia granted 1.6 million work permits to foreign citizens. Four former Soviet Union (FSU) countries currently provide the largest number of foreign workers – Uzbekistan (c. 40%), Tajikistan, Ukraine, and Kyrgyzstan, totaling about 70% of all work permits. Notable flows also come from China, Turkey, Vietnam, and North Korea among non-FSU countries[31]. As for the sex-age structure, male immigrants dominate in Russia (about 90%) with the overwhelming majority of workers being between 18 and 39 years; these account for c. 80% of all male immigrants. In recent years, labor migrants to Russia tend to "grow younger" – from 2007, the age group of 18-29 years has been prevailing over the category of 30-39 years. Education and skill levels have been on the decline, too. Despite Russia having eased entry regulations for highly qualified labor migrants, the occupational makeup remains largely unchanged thus far. Temporary labor immigration to Russia remains mainly a low-skilled flow with as little as 44 thousand out of 1.4 million work permits issued to high-skilled specialists. Corrupt practices penetrate labor migration as new entrants seek legalization; meanwhile employers lack economic stimuli to hire native labor due to the availability of cheap foreign workers with few or no labor rights or protections[32].

Foreign labor immigrants are distributed unevenly in Russia with Moscow, Moscow Oblast, Saint Petersburg, and Leningrad Oblast being the unquestionable leaders. These regions combined account for about 58% of all foreign workers in Russia. Additional sizeable portions of migrants concentrate in oil-rich Okrugs – Yamalo-Nenets and Khanty–Mansi. The Far East of the country hosts some 10% of labor immigrants coming mostly from China, North Korea, Central Asia, and Vietnam.

In July 2010, Russian authorities de facto legalized foreign workers hired by individuals by introducing licenses – special work permits for citizens from visa-free countries who work for private persons. Based on formal statistics of the Federal Migration Service, over 2 million people obtained such licenses in 2010-2012[33]. Formally, the share of international labor in-migrants among people employed on the Russian labor market remains relatively low at about 5%. However, this share is rather substantial in some sectors such as construction, where it reaches almost 19% by official estimates. With non-formal workers factored in, Sergey Riazantsev estimates that this share could run up to 50–60% in such sectors of economy as construction, utilities, transport, trade, and services.

There is a material gap between official data and the real scale of labor migration. The number of undocumented labor immigrants (estimates are rather approximate) exceeds the officially reported headcount by several times. The census of 2002 gave more or less realistic statistics, finding about 2 million people in Russia not accounted for in earlier counts. Another census of 2010 "added" 1,000,000 people to the country's population and temporary labor immigrants presumably were responsible for such an addition. Calculations based on the estimates of primary categories of undocumented foreign workers in Russia suggest their headcount could total some 5 million persons. Citizens of other CIS countries form the vast

[31] Ryazantsev S. *Labour migration in the CIS and Baltic countries: trends, consequences regulation* [Trudovaya migratsiya v stranakh SNG i Baltii: tendentsii, posledstviya, regulirovaniye]. Moscow: Formula law, 2007.

[32] Ryazantsev S. *Workers from Central Asia in the Housing and Utility sector of Moscow*. Working Paper, ILO Subregional Office for Eastern Europe and Central Asia. Moscow: ILO, 2010.

[33] Ryazantsev S., Gorshkova I., Akramov S., Akramov F. *The Practice of Using Patents for Labor Activity by Foreign Citizens − Migrant Workers in the Russian Federation* (the Results of the Study). Moscow: International Organization for Migration, 2012.

majority as they have rights to visa-free entry to Russia, but then they fail to register as temporary residents or obtain work permits as stipulated by the legislation. Many newcomers reside in Russia for several years or pay visits to their homelands now and then[34].

Student migration

Despite its considerable potential in the area of educational services, Russia attracts just 80–90 thousand foreign students annually and has a mere 3% share of the global education market. Students mainly come to Russia under government programs or along well-trodden routes – either their parents had studied in Russia, or they are ethnic Russians whose parents intend to relocate to Russia in due course. The top source countries include Kazakhstan, China, India, Ukraine, Vietnam, and Uzbekistan. Russian language the similarity of educational systems, and relatives attract students from CIS, while non-FSU students find Russian tertiary education institutions cheap compared to the Western ones. Apparently, Russia's policy with regard to student migration is far from active and the country does not seek to bring in crowds of foreign students. In addition, unreasonable barriers for foreign students preclude them from working more than a certain amount of hours in Russia. Some institutions of higher education feature poor amenities and studying conditions. Moreover, information resources for international promotion and effective tools to form Russia-oriented student flows are non-existent. In many cases, Russian institutions take uncoordinated actions to attract foreign students; at times, they compete against each other. Finally, graduates of local institutions of higher education face rather complicated and time-consuming naturalization procedure despite a de-jure relaxed regulation granting Russian citizenship for them. Nor does Russia have a proactive state strategy of inviting foreign postgraduates for graduate, doctoral, internship or professional development programs[35].

Emigration

Over 1.2 million people have left Russia for permanent residence in non-FSU countries following the USSR's breakdown. Germany, Israel, and USA have traditionally been and remain the main destinations for Russian expatriates. Among newer destinations of the Russian emigration we can highlight European countries (Finland, Spain, and the United Kingdom in the first place), Canada, Australia, New Zealand, and China. In addition, Russia has become a rather large exporter of labor force to the international markets as 45–70 thousand Russians leave their homeland annually under work contracts only. The largest portion of temporary labor migrants heads for the United States and Europe. In recent years, Russians have had an increasingly marked footprint on the labor markets in Asia and Australia. Major employing countries include the USA, Cyprus, Malta, the Netherlands, Germany, and Greece. CIS countries look far less attractive for Russians against the background of the "old" foreign universe, although they host some small shares of labor migrants from Russia. Although legally hired, many Russians obviously have not notified state agencies of their overseas employment. Overall, reducing emigration (through improved living and working standards in Russia for corresponding population cohorts) which includes mostly well-educated and qualified specialists, young and active persons, accompanied by businesses and capitals outflow among other things, presents a fairly important demographic reserve for Russia. Although reducing emigration will do little to offset the impact of Russia's mortality and low fertility on overall

[34] Ryazantsev S., Khoriye N. *Modeling migration flows from Central Asia to Russia* [Modelirovaniye potokov trudovoy migratsii iz stran Tsentral'noy Azii v Rossiyu]. Moscow: Nauchnyy mir, 2011.

[35] Pis'mennaya E. E. *Social effects of migration and training policies to attract foreign students in Russia and abroad* [Sotsial'nyye effekty uchebnoy migratsii i politika v sfere privlecheniya inostrannykh studentov v Rossii i za rubezhom]. Moscow: Ekonomicheskoye obrazovaniye, 2009.

population, its importance is magnified by the fact that much emigration is of high-skilled workers while very few immigrants are in the high-skilled category[36].

Prospects of smaller migration gains for Russia

It is critical to note that any hopes to overcome the population crisis in Russia by means of migration alone are groundless. It is next to impossible to make up for population losses due to Russia's extremely high adult mortality and low fertility even through aggressive encouragement of migration as all CIS countries (Russia's principal "demographic donors") face their own demographic dips related to abrupt downturn in births of their own in the 1990s. As the result, increasingly smaller age cohorts will be entering the CIS labor markets in the years to come. These will greatly reduce the surplus labor force in CIS countries, restraining Russia's potential migration gains[37].

Russians residing abroad can potentially contribute to immigration to a certain extent. However, their role in forming migration flows should not be overestimated; they could make some compensatory component at best. We will discuss the opportunities related to **our expatriate fellow countrymen** in the context of addressing Russia's demographic issues in Section 3.

[36] Ryazantsev S., Pis'mennaya E.. Emigration of scientists from Russia and the Russian scientific diaspora "circulation" or "brain" drain [Emigratsiya uchenykh iz Rossii i rossiyskaya nauchnaya diaspora: "tsirkulyatsiya" ili "utechka" umov]. *Sotsiologicheskiye issledovaniya* 4 (2013): 24−35.

[37] *Russian demographic prospects* [Demograficheskiye perspektivy Rossii] / Ed. by G. Osipov and S. Ryazantsev. Moscow: ISPR, 2008.

SECTION II.
FORECASTING
RUSSIA'S DEMOGRAPHIC DEVELOPMENT

Situation today

2013
143 million

HISTORICAL CHANCE
the highest ratio in the world of young and working-age adults to total population – potential for new births and economic breakthrough

If nothing is done

2063
102 million

50 YEARS LATER
We will be left with a far smaller population with an even smaller proportion in the working ages

Inertial scenario till 2063

Experts from the Open Government's working group on family and children have analyzed the main scenarios of Russia's demographic development[38] including no-action

[38] For methodology description see: Korotayev A., Khaltourina D., Bogevolnov J. Mathematical modeling and forecasting Russia's demographic future: five scenarios [Matematicheskoye modelirovaniye i prognozirovaniye

(inertial) and best-case scenarios, as well as the scenario envisaged by the Concept of Demographic Policy[39]. Table 2.1 outlines the targets as set by the Concept.

Table 2.1. Goals by Indicators of the Concept of Demographic Policy[40]

	2006	2010	2015	2025
Population (million people)	142	143[41]	142–143	145
Mortality decrease (times)			1.5	1.6
Infant mortality (infants per 1,000)	10.2	7.5		5.1
Maternal mortality (per 100,000 births)	23.8	22*		11.9
Life expectancy at birth (years)	66.6	68.7*	70	75
Total fertility rate (births per woman)	1.30	1.54*	1.70	1.95
Migration gain (thousand people per year)	132	158	200	300

*Note: 2006 data used as initial values. * Data for 2009–2010 [Source 2006, 2010: Federal State Statistics Service]*

Both the Concept and Presidential Executive Order N 606 from May 7, 2012 *On Measures to Implement the Demographic Policy of the Russian Federation*[42] envisage further birthrate increases. Although life expectancy in Russia has advanced to record highs, the said Executive Order calls for its increase to the level of Hungary by 2018. In other words, the Concept and Executive Order set targets that seem rather reasonable by European standards. However, according to our calculations, achieving these objectives would not suffice to halt Russia's depopulation. Fertility, mortality, and migration target rates, as set by Russia's Demographic Policy, cannot assure subsequent long-term population growth (see Figure 2.1), and population decline will resume as soon as in 2025. Under the no-action scenario, Russia's population will diminish to 140 and 113 million people by 2020 and 2050, respectively[43], unless additional measures to support births and prevent deaths are implemented.

Analysis shows that at the current fertility rate (notably below the level needed for population replacement) and mortality rate (very high by international standards), for all the improvements attained, Russia's population will rapidly contract in the decades to come – to 138.5 and 112.4 million people by 2020 and 2050, respectively.

demograficheskogo budushchego Rossii: pyat' stsenariyev]. *Scenario and prospects for the development of Russia* [Stsenariy i perspektiva razvitiya Rossii] / Ed. by V. Sadovnichy, A. Akaev, A. Korotayev, G. Malinetsky. Moscow: Lenand/URSS, 2011. P. 196–219. See also Appendix 1 to this report.

[39] Presidential Executive Order #1351 of October 09, 2007 *On Approval of the Concept of the Demographic Policy of the Russian Federation to the year 2025*. URL: http://document.kremlin.ru/doc.asp?ID=041941. Cited August 09, 2013.

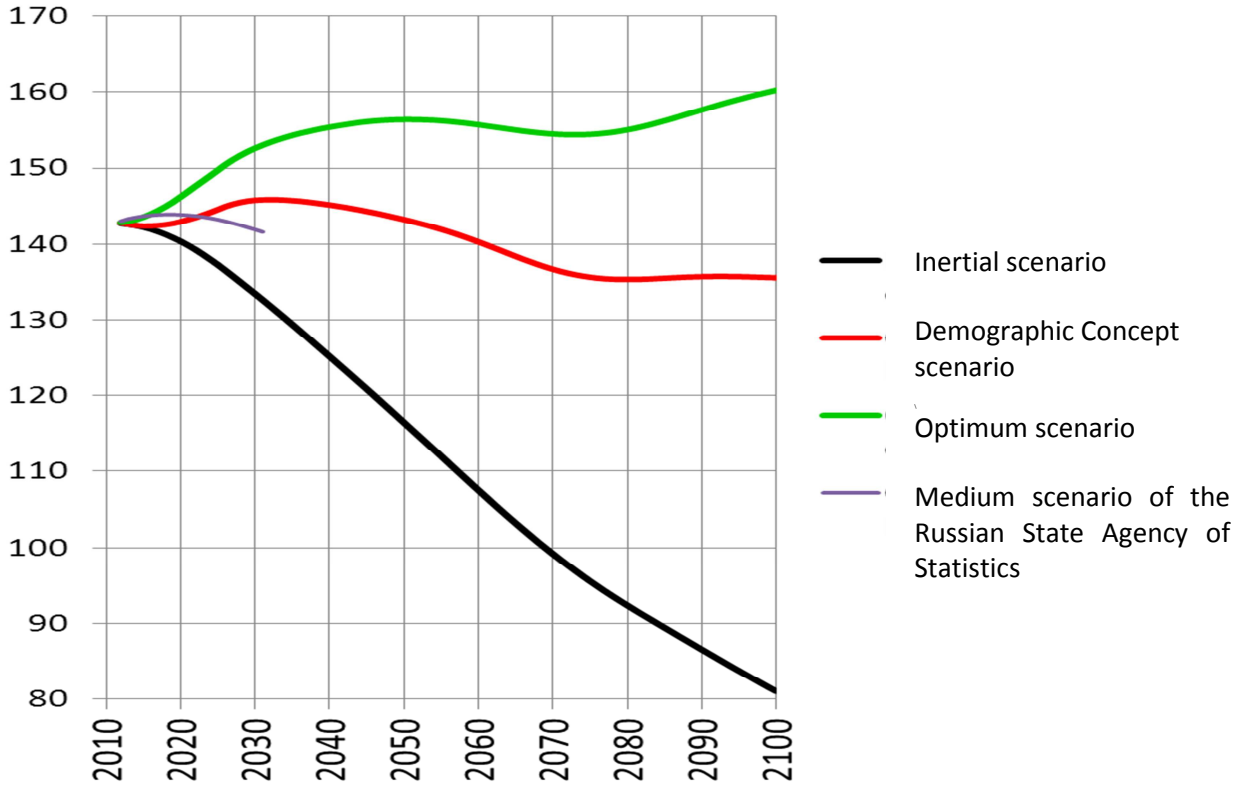
[40] One year is a standard delay in processing statistical demographic data; hence the use of 2006 data, though the document was signed in October 2007.

[41] According to intermediate data on population census of 2010, Russia's population at the moment of census amounted to 142.9 million people. See: Суринов А. Кем мы себя считаем? Росстат подвел итоги переписи населения. *Российская газета*, федеральный выпуск №5440 (64), 28.03.2011. URL: http://www.rg.ru/2011/03/27/perepis-rosstat-site.html. Cited August 09, 2013.

[42] Presidential Executive Order #606 of May, 7 2012 *On Measures to Implement the Demographic Policy of the Russian Federation*. http://news.kremlin.ru/acts/15257. Cited August 09, 2013.

[43] A. Akaev *et al. Modeling and forecasting of global, regional and national development* [Modelirovaniye i prognozirovaniye global'nogo, regional'nogo i natsional'nogo razvitiya]. Moscow: Program of Presidium of RAS "Complex systems analysis and mathematical modeling of the world dynamics", 2012.

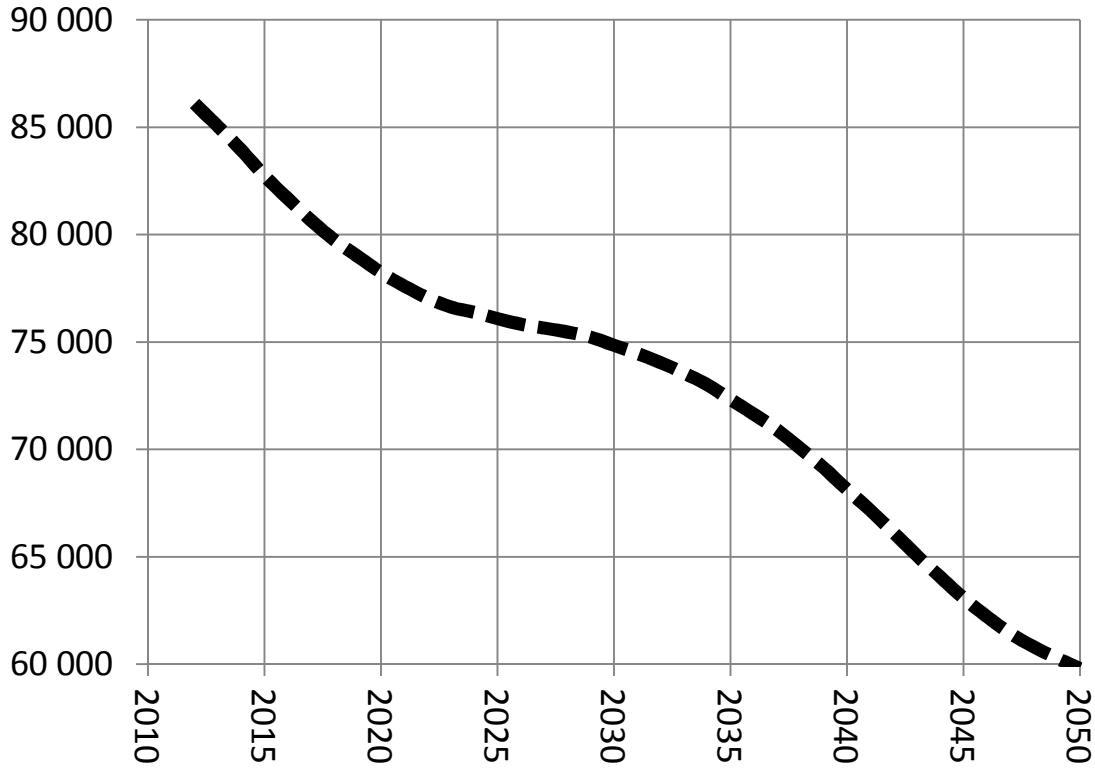
Fig. 2.1. Population of the Russian Federation (millions) according to various scenarios of demographic development for the period till 2100



If the inertial scenario unfolds, upcoming depopulation and changes in Russia's age structure will likely affect all aspects of socioeconomic development:

- **Labor and economic potential**. Unless Russia takes immediate and meaningful measures aimed at total elimination of its excessive mortality and boosting fertility, this country will face a dramatic contraction of its working-age population: by 7–8 million people by 2020 and by over 26 million people by 2050 (see Figure 2.2). The age structure of the economically active population will become a great deal more mature, endangering projected *economic growth, investment appeal, and structural modernization of the economy*.
- **Human resources.** Some spheres of economy, which are directly associated with modernization prospects, such as industry, and engineering, will suffer the most from the aging of the workforce, as they will soon start to lose their senior personnel. Despite the innovation-based economic growth desperately needed, the oil and gas industry, as well as the financial sector, will likely continue to "prosper" amid looming personnel shortages since they offer higher salaries and can attract sought-after educated young people.
- **Healthcare and public welfare.** Increasing numbers of people at much higher ages will result in higher healthcare costs for the state, as senior citizens consume medical services per capita significantly above average. In addition, the rapid escalation of demand for specialized medical services for seniors will require changes in medical specialties and doctors' training. The need for emergency medical services and integrated social security centers for the elderly will increase substantially.

Fig. 2.2. Projected dynamics of the Russian working age population (in thousands) according to the inertial scenario



- **Education.** Shrinking cohorts of Russian students will result in fewer institutions of occupational education if not compensated by educational and educational-labor migration. Ageing workers will require a new system of lifelong learning intended for reeducation and conversion training to keep them productive. The demand for initial professional and vocational secondary schools will reduce.
- **Pension system.** The national pension system will also face challenges, as the ratio of the working-age population to unemployable citizens will drop from the current 2.7 to below 2.0 by 2035 and further to 1.6 in 2050[44]. Assuming no change in taxation or pension age requirement with regard to the pension system will result in the percent of retirees' income replaced by pensions dropping to 26% in 2030 from 36% last year. With the demographic situation unchanged and in absence of pension reforms, maintaining current replacement rates will entail additional expenditures to the amount of about 0.2% of GDP annually[45].
- **Defense capabilities**. By 2020, the draft-age (18–27 years) male population will fall by 3.8 million men (more than one third) and by 4.5 million (or more than 40%) by 2050, which will pose a problem in terms of manning the armed forces.
- **Politics**. Political stability depends directly upon the state's ability to fulfill its social obligations. Destabilization and loss of faith in the government can in turn contribute not only to deterioration of the socioeconomic situation, but also to an intensified demographic crisis, similar the disaster seen in the 1990s with negative trends gaining momentum.
- **Geopolitics.** The demographic situation in the Far East, where Russia neighbors the world's three largest economies (China, Japan and the U.S.), poses a particular threat.

[44] According to the Federal State Statistics Service forecast, the ratio of pension-age to working-age population will increase 1.5 times by 2030; the United Nations predicts more than a twofold increase by 2050.
[45] Calculations by V. Nazarov. (Gaidar Institute for Economic Policy, Moscow).

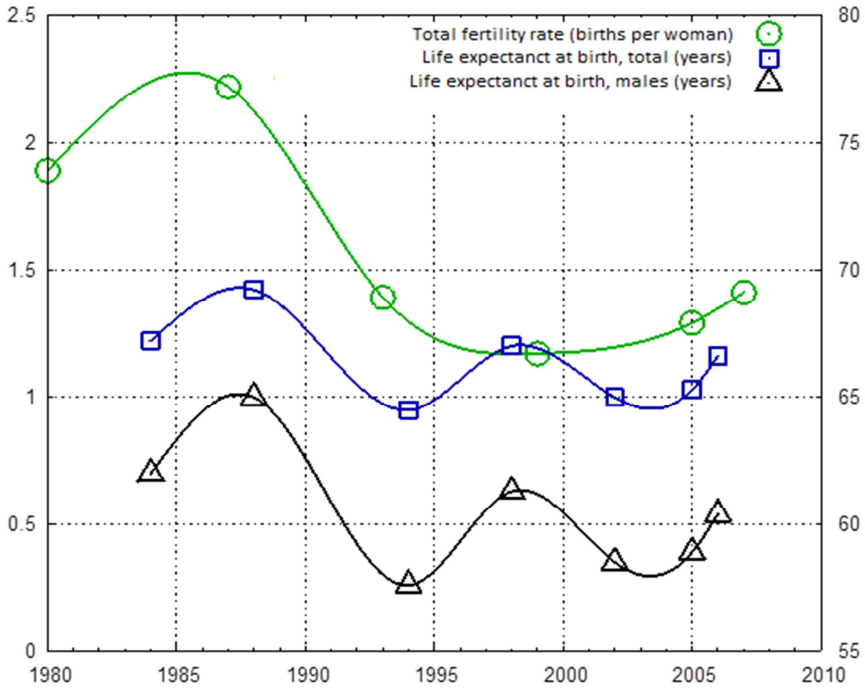
The population of the Far Eastern Federal District could shrink to less than 4,000,000 people (by almost 40%) by 2050 for the reasons of low fertility, elevated mortality, and migration outflow. Such developments would also endanger the territorial integrity of Russia as the single largest state.

In view of its demographic challenges, Russia runs medium-term risks of losing economic growth momentum and competitiveness, while its social, political, and geopolitical stability might come under pressure in the longer term unless additional measures are taken today, aimed at mitigating the consequences of the 1990s demographic dip.

A WORST-CASE SCENARIO

At the same time, the inertial scenario is obviously not the worst case. In fact, this scenario assumes life expectancy in Russia through 2050 will remain at its 2010 level and total fertility rate at the 2011 level. Yet the years of 2010 and 2011 were hardly among the worst in post-Soviet Russian history – actually, these years turned out to be among the most favorable in terms of birth and death rates. Unfortunately, there are not sufficient grounds to exclude the possibility of a deteriorating situation in Russia with regard to fertility or mortality. In Russia's recent history, we have seen fertility rates and life expectancies rise, but then collapse to levels below those preceding the upturn (see Figure 2.3).

Fig. 2.3. Dynamics of total fertility rate (births per woman) and life expectancy in Russia[46]. "Alcohol dips" of the 1990s and early 2000s

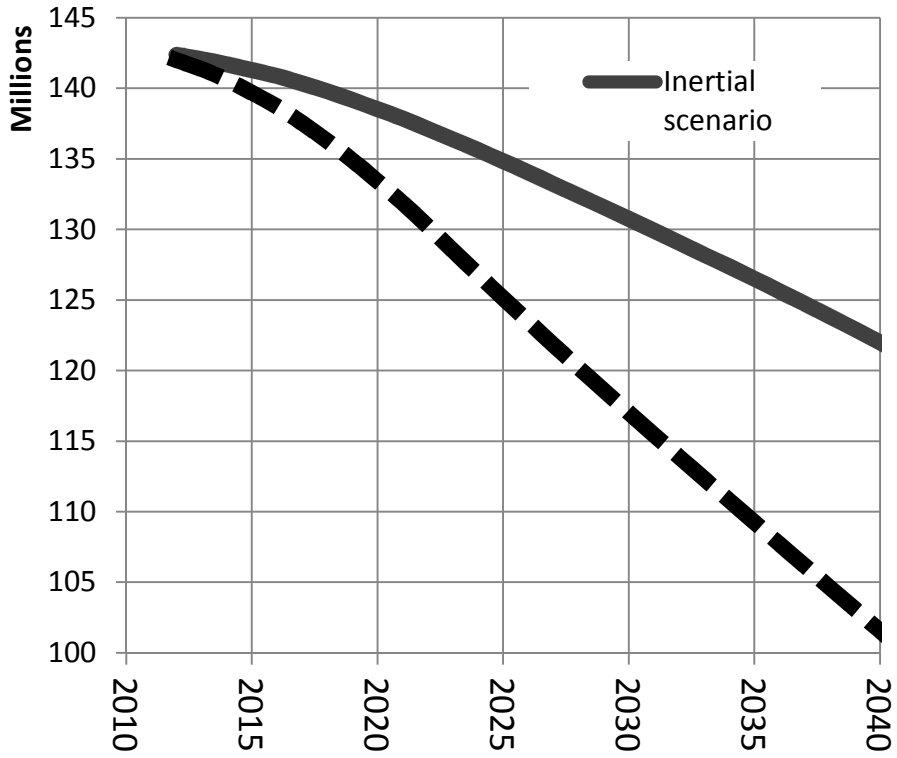


[46] UNICEF. *Social monitoring "Innocenti"*. Florence: Innocenti Research Centre, 2004. P. 73; World Bank. *World Development Indicators Online*. Washington, DC: World Bank, 2013. URL: http://data.worldbank.org/indicator. Accessed: August 09, 2013.

Our worst-case scenario reflects Russia's demographic future in the case of a victory of the alcohol and tobacco lobbies and reduced financing to support families with children, when lead to a regress of mortality and birth rates to the lows of the 1990s. It also incorporates an economic crisis, producing a dramatic upsurge in unemployment with subsequent decreases in migration gains to zero by 2022. While this scenario may seem unduly dismal, recent proposals – including ending maternity capital payments for higher-order births, cancelling full payments for public nurseries, allowing a 150% increase of kindergarten payments for middle-class parents with two children, and freezing or even decreasing the excise taxes on vodka and cigarettes – make this gloomy scenario ever more realistic.

Figure 2.4 summarizes the results of our calculations for the worst-case scenario, compared to the inertial trajectory. In the worst outcome, Russia's population may shrink to 100,000,000 people as soon as in early 2040s.

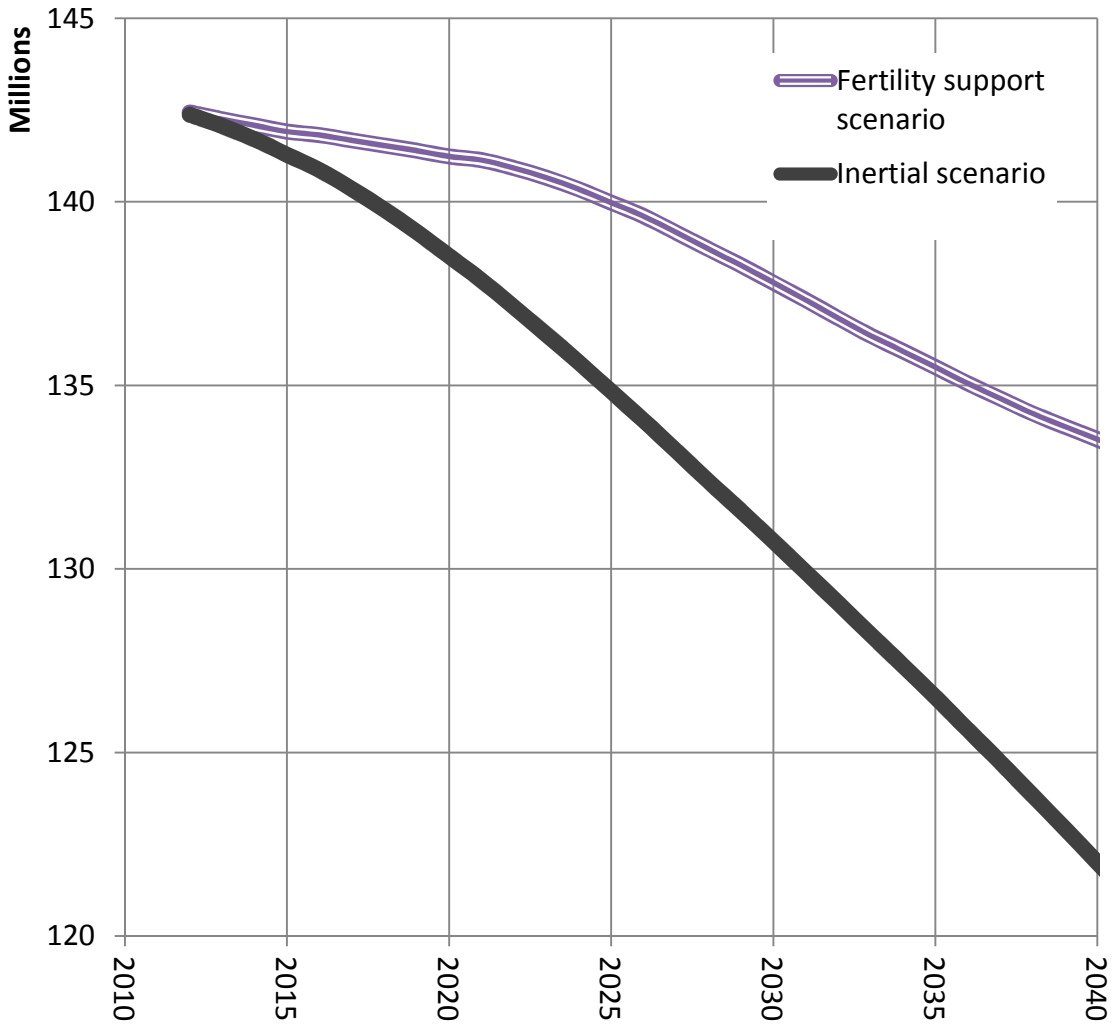
Fig. 2.4. Pessimistic and inertial scenarios of the Russian population dynamics for the period till 2040, millions



2.1. Demographic effect of comprehensive family policy using a minimum of 3% of GDP to this purpose

Other European countries that have attained stable fertility rates closer to replacement have invested heavily in family-support policies. To examine the effects of adopting similar policies in Russia, we modeled the effect of effective investing 3% of GDP in such state policies by smoothly (over a ten-year period) bringing age-specific fertility rates of 2020 to the level of Iceland in 2005 (which corresponds to a total fertility rate of 2.05 births per woman), while leaving age-specific mortality rates intact at 2010 level. Figure 2.5 presents the projected change in the population of the Russian Federation compared to the inertial scenario.

Fig. 2.5. Scenario of full-scale measures of fertility support in comparison with the inertial scenario of the Russian population dynamics, millions, 2013–2040



Under this scenario, Russia's population will decrease to 133.5 million people by 2040 rather than to 122 million as seen by the no-action scenario. Measures to support fertility alone thus could produce a very strong effect on the long-term population trend (adding 11.5 and 17.6 million human lives by 2040 and 2050, respectively), but these measures alone will not suffice to prevent Russia from still experiencing population decline.

2.2. Potential effects of stronger anti-alcohol policies

To find other ways to improve Russia's demographic prospects, we examined the potential effects of strong anti-alcohol policies. Our estimates prove that the long-term demographic potential of a vigorous anti-alcohol policy remains rather high in the current situation (Figure 2.6 and Table 2.2).

Fig. 2.6. Scenario of full-scale anti-alcohol policy in comparison with the inertial projection of the Russian population dynamics, till 2040, millions

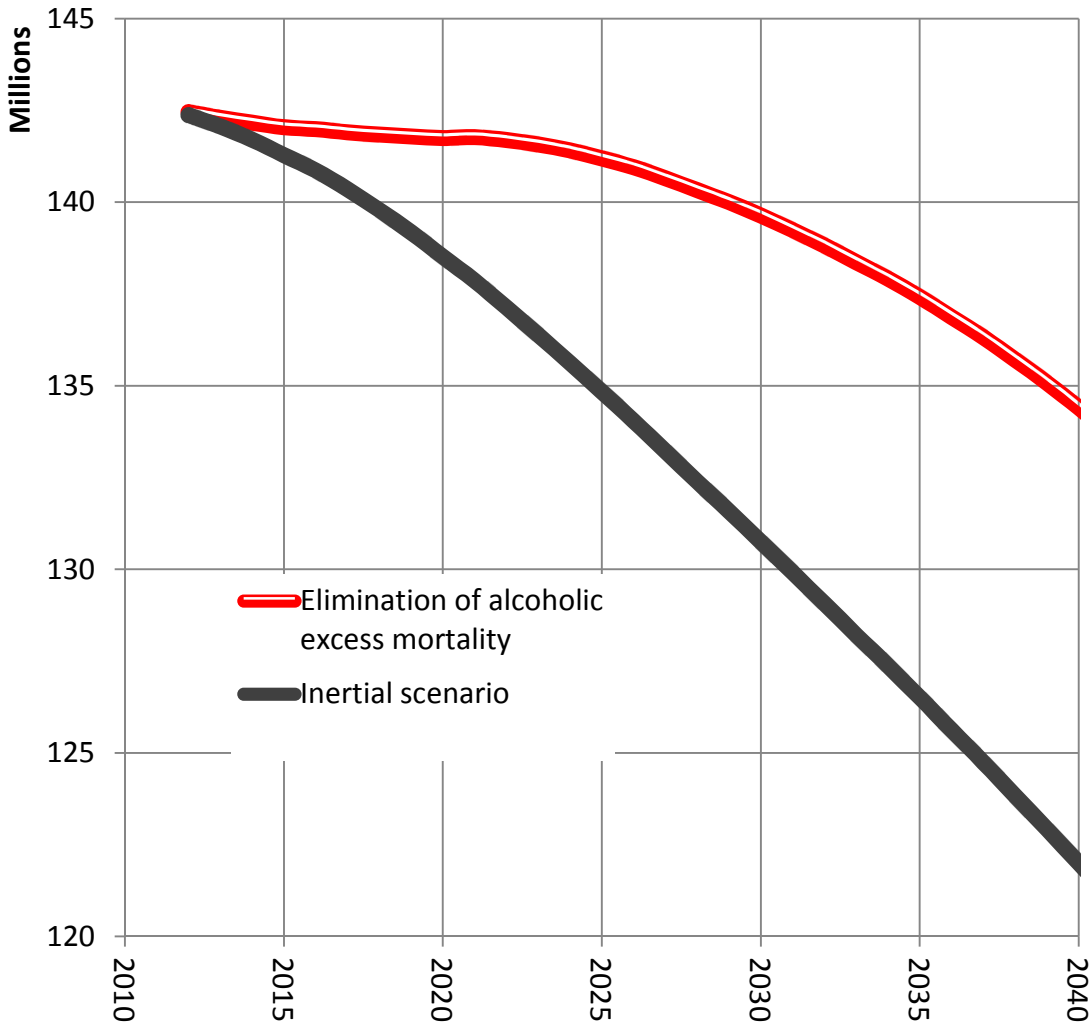


Table 2.2. Scenario of full-scale anti-alcohol policy in comparison with the inertial projection of Russian population dynamics, millions per year and, millions till 2040 (the "price tag" in millions of additional human lives)

Year	Russia's population according to the corresponding forecast		"Price tag" in millions of human lives for the corresponding year
	Business-as-usual/inertial forecast (million people)	Comprehensive anti-alcohol policy forecast (million people)	
2020	138.5	141.7	3.2
2030	130.8	139.6	8.9
2040	122.0	134.4	12.4

The above data clearly points at the huge demographic potential that could be unlocked through the implementation of standard World Health Organization recommendations[47] in respect to the future of this country. If implemented, these measures – not just low-cost, but quite the opposite, outright beneficial for the state budget – could save more than **twelve million** Russian lives by 2040. The measures should include real (i.e. manifold rather than by some percent) hikes in excise taxes on spirits or the introduction of a government monopoly on retail liquor sales, among other things. Therefore, in the short to medium term, rigorous anti-alcohol policies offer even larger demographic potential compared to fertility support measures, and at far lower cost (on the other hand, encouraging birth-giving has greater long-term potential as discussed below).

Interestingly, at this time the potential demographic effect through 2040 of a full-blown anti-alcohol policy has somewhat contracted from 16.6 to 12.4 million people, as compared to the previous similar projection which began with the higher baseline of age and sex based mortality rates of 2007 rather than 2010[48]. Generally, this is a positive and welcome development as it means that even the compromise measures to curb alcohol affordability that have been implemented in this country in recent years should save the lives of **more than four million of our compatriots** in the decades to come (provided these measures stay in place, of course). These same figures show how little we have done in this regard compared to what could be achieved, and how far we have to go.

2.3. Strong effects of the complete elimination of excess mortality

Complete elimination of excess mortality in Russia can produce a particularly strong long-term effect on demographics. In addition to a vigorous anti-alcohol campaign, it should involve a full-scale anti-smoking policy and major improvements in the national healthcare system, with at least 10% of GDP allocated to these purposes. We modeled the effects of these policies through bringing age-specific mortality rates of Russia in 2020 to the level of Norway in 2009. (Note that this scenario does not suggest that Russia will catch up with Norway by 2020, as Norway will likely further reduce its mortality in the coming decade. Rather, it assumes that Russia will be able to reduce the gap; that is Russia in 2020 will reach Norway's 2009 level, although this scenario is still somewhat optimistic.)

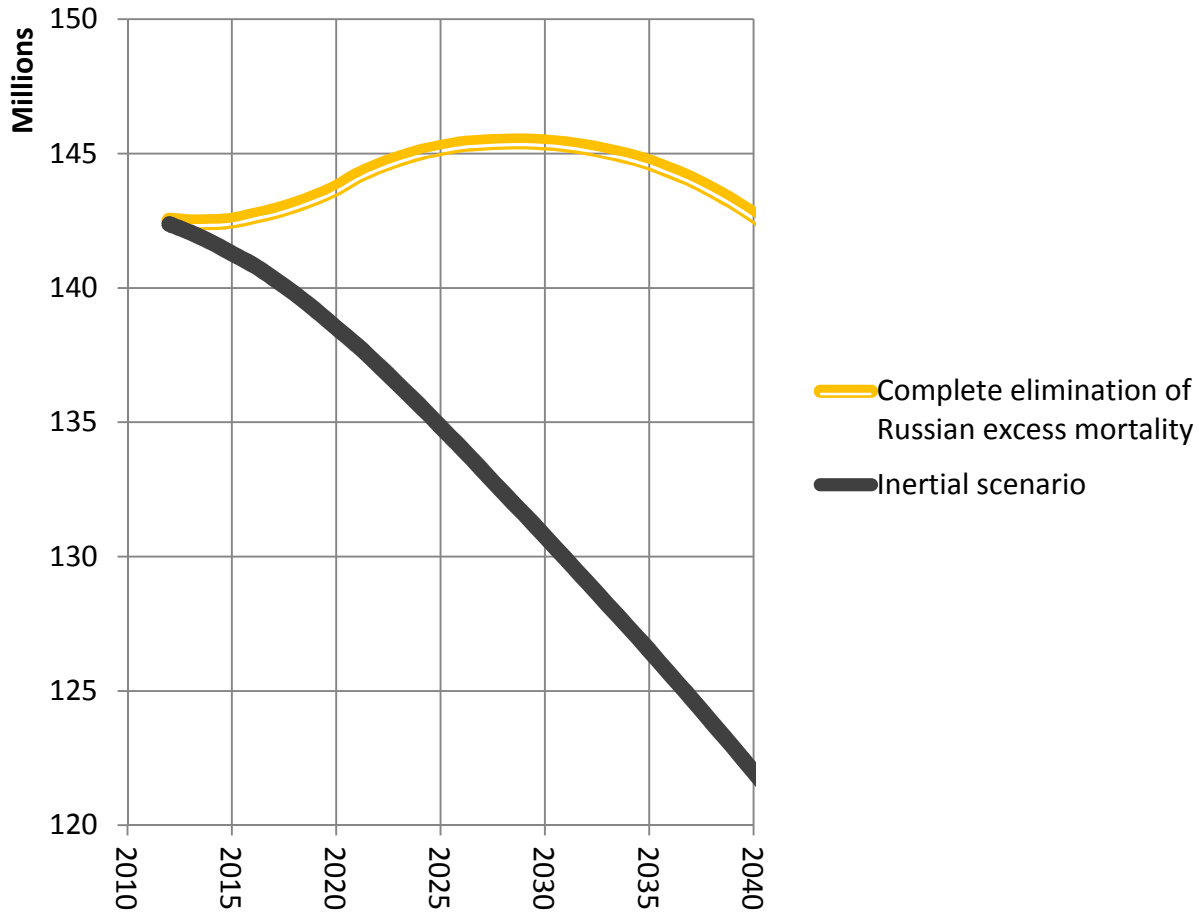
Under this scenario, if complete elimination of Russia's excess mortality could be achieved, the Russian population would grow to 142.7 million people by 2040, rather than drop to 117 million as seen by the no-action scenario. To put it differently, Russia in 2040 will return to the current level of about 143 million inhabitants. In the short to medium term, therefore, the complete elimination of Russia's excess mortality will have a particularly strong demographic effect (20.7 million saved lives by 2040), notably stronger than childbirth support measures. However, the elimination of excess mortality would have its main impact on the next generation; in the longer term it would not fully counter the effect of smaller youth cohorts and low fertility over several generations. Therefore, despite its large near-term impact, eliminating excess mortality alone will not prevent Russia's population from eventually returning to decline. As shown in Figure 2.7, this change will suffice to halt population loss by the mid-2010s and even ensure a certain population growth through to late 2020s. However, the Russian government should also adopt a fertility boosting package of policies to maintain current

[47] Demin A., Korotayev A., Khaltourina D. *Alcohol abuse in the Russian Federation: socioeconomic consequences and countermeasures* [Zloupotrebleniye alkogolem v Rossiyskoy Federatsii: sotsial'no-ekonomicheskiye posledstviya i mery protivodeystviya]. Moscow: Public Chamber of the Russian Federation, 2009.

[48] Korotayev A., Khaltourina D., Bogevolnov J. Mathematical modeling and forecasting Russia's demographic future: five scenarios. *Scenario and prospects for the development of Russia* [Matematicheskoye modelirovaniye i prognozirovaniye demograficheskogo budushchego Rossii: pyat' stsenariyev]. *Stsenariy i perspektiva razvitiya Rossii* / Ed. V. Sadovnichy, A. Akaev, A. Korotayev, G. Malinetsky. Moscow: Lenand/URSS, 2011. P. 196–219.

birthrates; otherwise, Russia's population will start to decrease from the early 2030s, with this contraction gaining momentum over the following years.

Fig. 2.7. Scenario of complete elimination of Russian excess mortality in comparison with the inertial projection of the Russian population dynamics, till 2040, millions



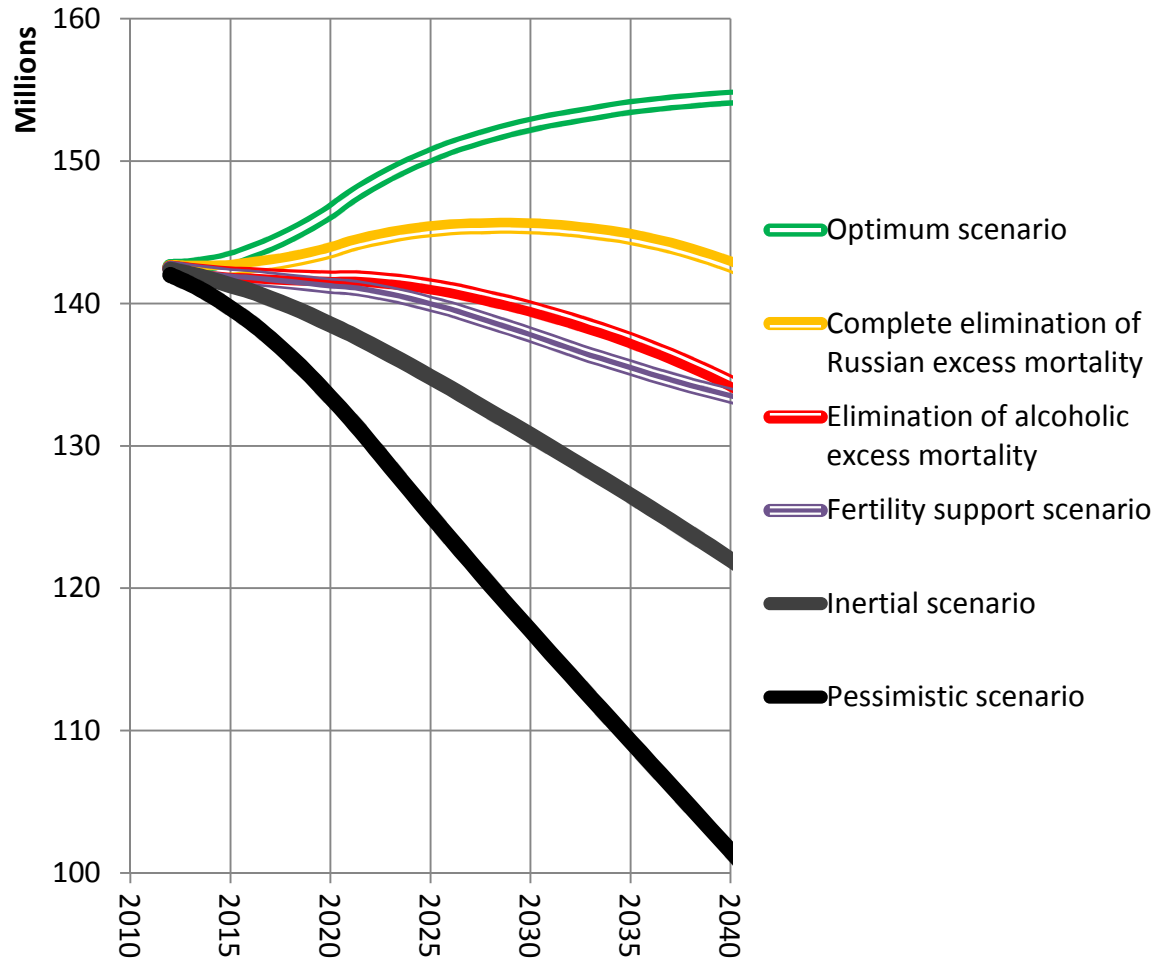
2.4. Combination of measures to prevent depopulation: the best-case scenario

We highlight that, given the recent severe demographic dips in the 1990s, and current adverse trends, *only a combination* of effective measures to support fertility *and* eliminate excess mortality could prevent Russia from eventually dying out. We include this combination as the best-case scenario in our analysis (Figure 2.8).

We should carefully note the huge spread between the lowermost (worst-case) and uppermost (best-case) scenarios. Indeed, should Russia develop under the worst-case scenario, its population will total less than 102 million people in 2040, while the best-case scenario suggests almost 155 million. Therefore, the cost of decisions made now potentially equals more than 50 million human lives of our compatriots, or more than one third of today's nationwide population.

It is worth a special mention that, in early 2040s, Russia will start to experience the consequences of the demographic dip of the 1990s even under the best-case scenario, as the children of the fewer mothers born in the 1990s enter their prime childbearing age. Nevertheless, in the optimum scenario, in the latter half of the century Russia's population will finally stabilize at slightly above its current levels (see Figure 2.9).

Fig. 2.8. Forecast scenarios of the demographic future of Russia, projected dynamics of the population of the Russian Federation in 2013–2040, millions



As we have noted, in the near term (the next 30 years), the greatest impact on demographic trends will come from eliminating excess mortality. However, our forecast analysis through 2100 suggests that for the period after 2040, the greatest long-term potential demographic improvements come from fertility support measures. Indeed, without a fertility boost, even with full elimination of excess mortality, Russia's population will experience an accelerating decline after 2040 that parallels the projections of the inertial or pessimistic scenarios (see Figure 2.10).

Fig. 2.9. Optimum demographic scenario of the dynamics of the Russian population (combination of an effective system of fertility support measures and the elimination of the Russian excess mortality), millions, 2012–2100

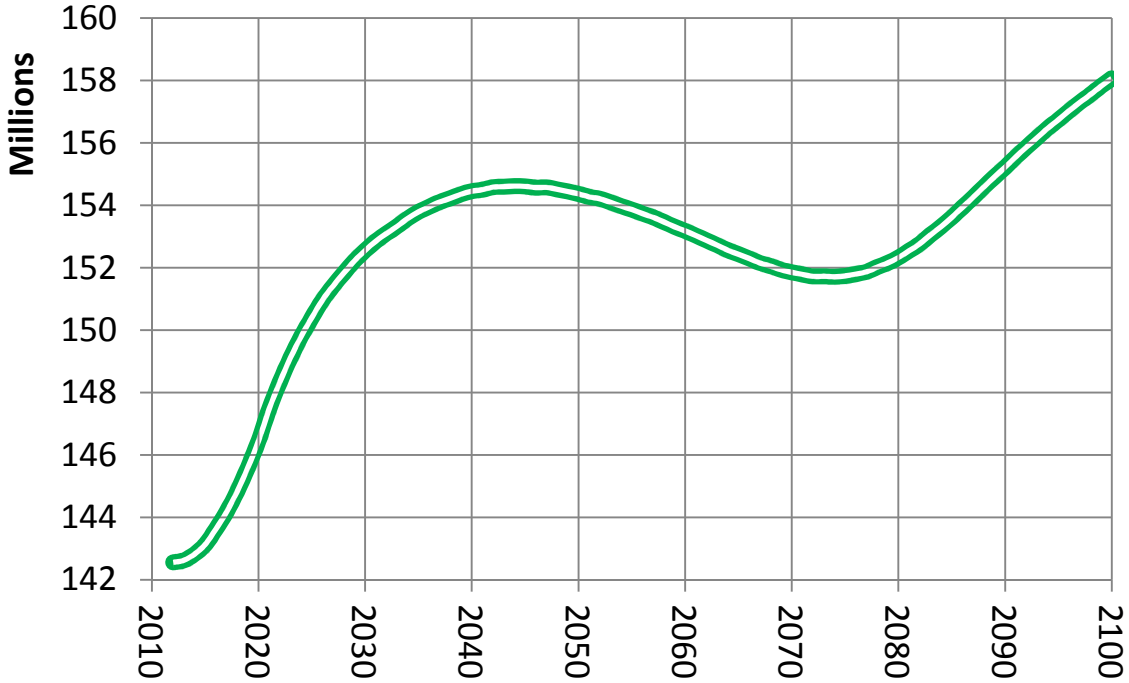
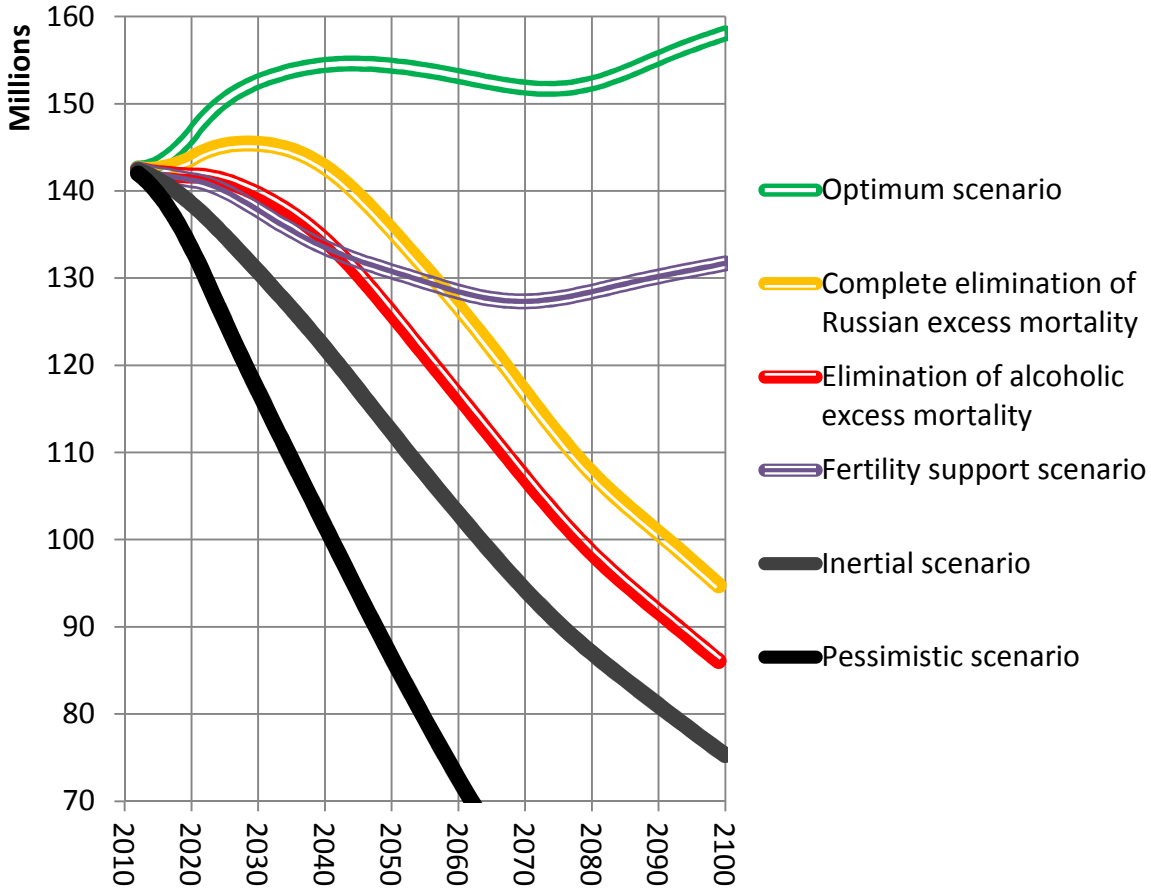


Fig. 2.10. Forecast scenarios of the demographic future of Russia, projected dynamics of the population of the Russian Federation in 2013–2100, millions



As we see, only a marked rise in births can prevent Russia's population from experiencing a long-term decline. However, unaccompanied by excess mortality elimination, this is achievable only in the second half of this century. Only the *combination* of fertility boosting measures *and* eliminating excess mortality can achieve both a prevention of immediate population decline and stabilize long-term population at current or higher levels.

If the fertility boost can be achieved, then the range of future population projections is for Russia to have less than 132 million people in 2100 if the problem of potential depopulation is addressed through fertility boost measures only. The best-case scenario encompassing both a rise in births and elimination of excess mortality would produce a population of more than 158 million. Hence, at least 26 million lives are at stake.

In sum, according to our estimates achieving the target level of 145 million people by 2025 will primarily require:

- *Life expectancy* of no less 79.9 years y 2025 (77.6 for men and 82.2 for women, respectively)
- *Fertility rate* of 2.05 births per woman by 2025
- Actions needed to maintain migration at the levels of recent years (c. 300,000 migrants per year) with improved quality of migration gains.

SECTION III. DEMOGRAPHIC POLICY MEASURES

Top governmental officials of the Russian Federation are already aware of the destructive consequences of the inertia development scenario, with its threat of large-scale depopulation, and recognize the necessity of taking action aimed at stabilizing the size of the population.. In particular, Vladimir Putin, the current President of the Russian Federation, stated during his term as the Prime Minister that the main priority of the state is to save the nation[49]:

> "Unless Russia implements a long-term comprehensive agenda for demographic development to build up its human potential and develop its territories, it risks turning into a geopolitical "void," whose fate would be decided by other powers. Today, Russia's population is 143 million. Experts forecast that in case of an "inertia scenario" – that is, with no **new** measures introduced, and with all the present trends still in place – by 2050 Russia will only be some 107-million strong. But if we manage to formulate and implement an efficient, comprehensive policy for population saving, then Russia's population may increase up to 154 million. The historic cost at stake in choosing between action and inertia is therefore some 50 million lives within the next 40 years". [50]

At the statutory level, this priority has been primarily fixed in the Concept of Demographic Policy for the period up to 2025 [51] which came into force in 2007 (the second stage of the Concept is being implemented currently), and in Presidential Executive Order No 606 of May 7th, 2012 "On Measures to Implement the Demographic Policy of the Russian Federation"[52].

Threats to Russia's demographic development are serious. However, a thorough research of international best practices makes it possible to identify approaches and state policies that may positively affect demographic indicators.

However, the time window of opportunities is limited for a number of indicators. Russia now has a unique resource which enables it to reach the optimistic scenario of demographic development – this is having one of the world's highest shares of population in the active reproduction and working ages (15–60 years). This includes a high percentage of people in the prime working and parenting ages (20–40). This resource will be available over the next 5–7 years; after that, the effect of the demographic dip of the 1990s will become more and more pronounced each year. Meanwhile, these 5–7 years may suffice to take Russia to the optimistic demographic scenario – provided that large-scale, effective, "concentrated" demographic policy is implemented. Russian President Vladimir Putin emphasized in his State-of-the-Nation Address the necessity to use the resource of having young population groups.

> "Today, the share of the young, active, working population aged 20 to 40 years in Russia is one of the highest among the developed countries. But in just 20 years, this age group could be reduced by half. If nothing is done, this trend will continue. Either right now we can open up a lifelong outlook for the young generation to secure good, interesting jobs, to create their own businesses, to buy housing, to build large and strong families and bring up many children, to be happy in their own country, or in just a few decades, Russia will become a poor, hopelessly aged (in the literal sense of the word) country, unable to preserve its independence and even its territory".
>
> V.V. Putin, State-of-Nation Address, 12 December 2012

[49] Transcript of Vladimir Putin's speech at the forum of health professionals: 14.04.2011. http://www.sarinform.ru/news/2011/04/14/71045.

[50] Putin V. Building of justice. Social policy for Russia [Stroitel'stvo spravedlivosti. Sotsial'naya politika dlya Rossii]. *Komsomol'skaya Pravda*. 13.02.2012. URL: http://www.kp.ru/daily/3759/2807793.

[51] Presidential Decree №1351 of 09.10.2007 "On approval of the Concept of Demographic Policy of the Russian Federation for the period up to 2025." URL: http://document.kremlin.ru/doc.asp?ID=041941.

[52] Presidential Decree №606 of May 7, 2012 "On measures to implement demographic policy of the Russian Federation."

The current young generation should resolve two critical tasks at once

Priority goals of the demographic policy over the next two decades should include an increase in birthrates to the population replacement level (about 2.1 childbirths per woman) and a reduction in mortality, especially liquidation of excessively high mortality of the working-age males.

If each of these strategic areas is supported by nationwide implementation of effective evidence-based state policies, the optimistic scenario of the demographic future for our country becomes a reality.

However, state policy *per se* does not suffice to achieve the optimum demographic scenario of demographic development. Active participation and involvement of business, private sector, mass media and, finally, the society itself is necessary as well.

President Putin stressed in his State-of-the-Nation Address two main spheres of action. In order to end the population loss and ensure that Russia's population has fully overcome the consequences of the demographic dip of the 1990s (*i.e.* approached the pre-dip population number of 1990), the following policies need to be implemented over the next ten years:

> "Demographers say that the decision to have a second child is a potential decision to have a third. It is important that more families take this step. And, despite some experts' doubts (with all due respect), I still believe that families with three children should become the standard in Russia. But a great deal must be done to make this a reality".
>
> V.V. Putin, State-of-Nation Address, 12 December 2012

> "In the past four years life expectancy in Russia has grown by almost 2.5 years (this is a good indicator) and has exceeded 70 years. However, the mortality rate remains very high, especially among middle-aged men. Together we must fight the frankly irresponsible attitude in society towards healthy living. Along with the development of public healthcare more attention should be paid to preventive care. Naturally, this does not mean that we should focus less attention on improving healthcare and increasing its accessibility – not at all. However, it is not enough to limit our efforts to medicine. The Government should introduce programs for replacing jobs with hazardous conditions and improving road safety. Only smoking (we know this well as we have discussed this many times already), alcohol and drug addiction cause hundreds of thousands of premature deaths in our country every year".
>
> V.V. Putin, State-of-Nation Address, 12 December 2012.

Achieving these goals is hard, but still possible. Russia has significant potential for both increasing birthrates and reducing mortality rates and this potential can be activated with effective demographic policies.

CURRENT DEMOGRAPHIC POLICY IN RUSSIA

At present, Russian demographic policy is defined by a number of statutory acts. The basic document is the Concept of Demographic Policy of the Russian Federation for the Period up to 2025 approved by Order of the President of the Russian Federation No. 1351 of 9 October 2007.

The adoption of the Concept reversed the trend of the state policy in Russia, positioning the state strongly towards supporting demographic growth. However, the targets set in the Concept are insufficient to overcome the demographic crisis in Russia because of the imminent echo of the demographic dip (as shown in Section 2 of this report). Achieving the fertility, mortality and migration target values set in the Concept will not ensure the subsequent long-term growth of Russian population in the long term. This means that even more aggressive goals and policies than those implied by the Concept will be necessary, if Russia is to overcome the echo of the demographic dip. In addition, the policies proposed in the Concept and some other population policy documents lack a detailed description necessary for their practical implementation.

At the same time, the international experience in the social policy public management shows that the effective policy measures should be specific to work to be applies within certain thresholds and in particular circumstances. These policy measures are usually identified based on the research of international, regional and national practices of a certain social policy issue management.

The key policy directions according to the Concept are in line with the policy recommendations derived from sociological research on these matters. However the set of policy measures of the Concept can be implemented either effectively or ineffectively.

Therefore, this Report contains a set of specific evidence based measures based on sociological research which are highly likely to have significant positive effect on the demographic indicators.

Order of the President of the Russian Federation No. 606 of 7 May 2012 "On Measures to Implement the Demographic Policy of the Russian Federation" sets new targets for demographic development and contains a number of quite effective measures, but it is not a systemic policy document.

Resolution of the Russian Federation Government No. 1142 of 3 November 2012 "On Measures to Implement Order of the President of the Russian Federation No. 1199 of 21 August 2012 "On the Assessment of Performance of Executive Bodies in the Constituents of the Russian Federation," although it introduced a number of demographic indicators to guide the performance of governors in Russia’s constituent entities, does not propose any policies that will definitely facilitate the achievement of these performance indicators. Additionally, this document is that it does not take into consideration the specific features of the various regions, such as the variations in their social and demographic trends, and the resources in place that can be used to improve each particular region’s demographic situation.

The State Program of the Russian Federation "Healthcare Development" contains a number of measures which may produce a tangible impact on mortality reduction. Nonetheless, the resources allotted to the Program are clearly insufficient to achieve the targeted crude death rate of 11.4 per 1000 by 2020, and the measures of the program are detailed enough to evaluate their possible effectiveness.

Migration, as we have shown in section 2 above, will play a critical role in sustaining Russia’s population size. However, the Concept of Migration Policy of the Russian Federation up to 2025, approved by the President of the Russian Federation on 13 June 2012 does not contain any quantitative indicators. The State Program stimulating return of compatriots to Russia, approved by is directly linked to demography. However, according to the Audit

Chamber, 8,800 thousand people moved to Russia by 2012 as part of this Program, or only 13.5% of the target number for these years[53], which clearly points to the currently low effectiveness of this Program.

Thus, Russia's demographic policy needs to be revised with a view to making its measures more efficient based on analysis of international and Russian experience of demographic policy and its components, and taking into consideration the massive scale of threats from the approaching demographic 'dip' in the generation born in the 1990s.

3.1. Measures to support fertility

Russia needs a "concentrated" demographic policy – as over a limited period of time (given the approaching echo of the demographic dip) it is necessary to implement the most effective policies to increase fertility. The family policy should be focused on bringing down the existing obstacles to families in having their desired number of children.

The desired number of children can be influenced by state policies of support for families with children. According to a nation-wide Russian survey, women estimate the probability of having their 2nd and 3rd birth over the next 3 years to be 40% higher and 66% higher accordingly if the state offers additional support for families apart from the current policies[54]. It should be noted that people who grew up in two- and three-child families are currently in their active reproductive age, which considerably increases the likelihood of second, third and subsequent childbirths in their families.

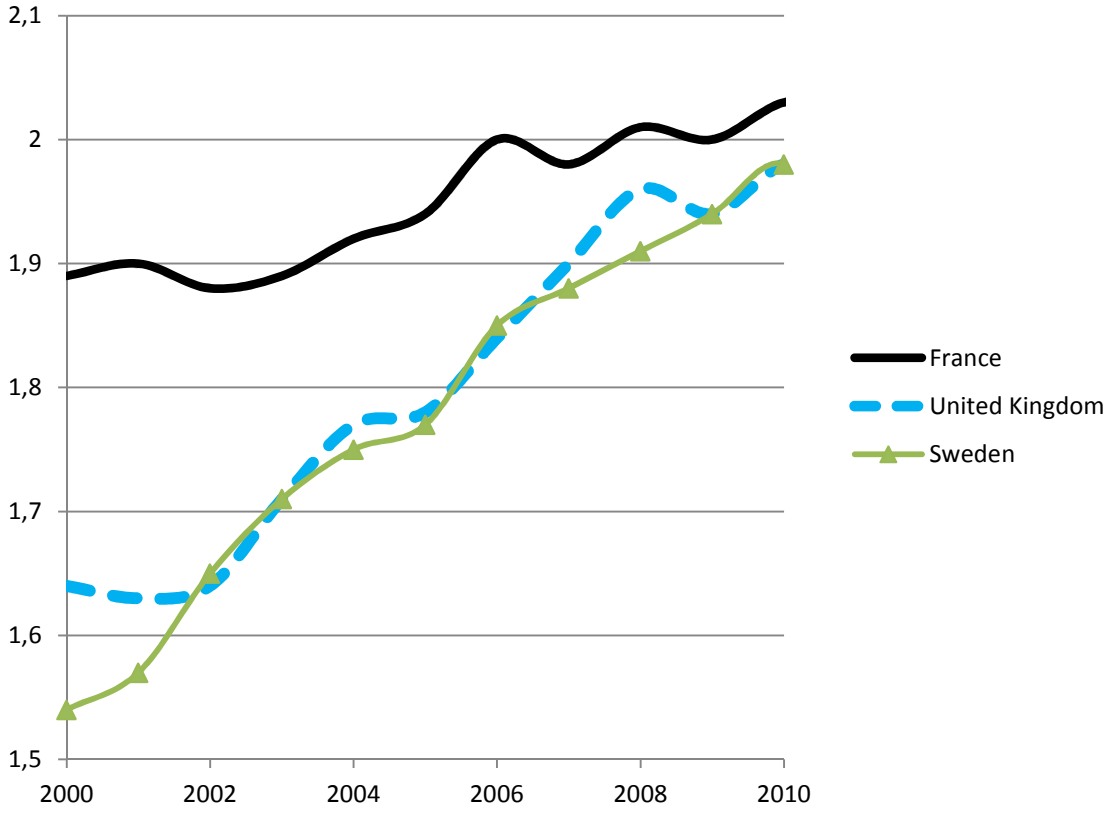
It is advisable to actively use the experience of the developed countries which managed to raise their fertility rates to the population replacement level or have maintained this level for a long period of time. Such examples do exist in the developed world, even though the Western decline in fertility seemed irreversible. However, the last decade showed that this trend is reversing. Many Western and Eastern European countries are experiencing strong fertility growth. Targeted family policy measures were the main driver behind a significant rise in fertility in recent years, in particular, in Great Britain (from 1.63 childbirths per woman in 2001 to 1.94 in 2008) and Slovenia (from 1.2 childbirths in 2003 to 1.53 in 2008). Such countries as Belgium, Norway, Finland, Iceland, the Netherlands, Australia, Latvia, Spain, Bulgaria, etc. also managed to significantly raise their birthrates.

There is widespread skepticism regarding the effectiveness of family policy measures intended to stimulate fertility, since they allegedly result in only a short-term rise in fertility (for 2–3 years) due to a shift in a birth calendar, with birthrates subsequently declining again. However, actual data show that countries which implement truly effective family policy measures and spend at least 2% (sometimes 3–4%) of their GDPs for these purposes manage to achieve consistent fertility growth (rather than effects lasting for 2–3 years only) (see Figure 3.1).

[53] 24.02.2010. Accounts Chamber of the Russian Federation checked the program of work with compatriots abroad. URL: http://www.ach.gov.ru/ru/news/archive/24022010/. Accessed: 01.09.2013.

[54] Rosstat. *Analytical report on the results of the sample survey of reproductive plans of population* [Rosstat. Analiticheskiy otchet po itogam vyborochnogo nablyudeniya reproduktivnykh planov naseleniya]. 2012. Published: 24.01.2013. URL: http://www.gks.ru/free_doc/2012/demo/orp.doc. Accessed: 09.08.2013. P. 61.

Fig. 3.1. Fertility trends (births per woman) in some European countries, 2000–2010[55]



According to surveys, despite a widespread stereotype, immigrants played a relatively insignificant role in this fertility growth[56].

For a long time, sociologists and demographers of European countries with successful demographic policy and high fertility rates have actively discussed, based on empirical data, what precise social policy measures have proved the most productive for increasing birthrates.[57]. Data from the Organization for Economic Development and Cooperation (OECD) are most commonly used for such calculations. OECD members include most post-Socialist countries of Eastern Europe. Therefore, a survey based on sampling from OECD countries is quite valuable for analyzing potential trends in Russian society.

According to these surveys, it is possible to gain an increase in fertility by 0.5 childbirth per woman if proven and effective measures are taken. For instance, in France effective

[55] World Bank. *World Development Indicators Online*. Washington, DC: World Bank, 2013. http://data.worldbank.org/data-catalog/world-development-indicators.

[56] *Childbearing trends and policies in Europe* / Ed. by T. Frejka, J. Hoem, T. Sobotka, and L. Toulemon. Rostock: Max Planck Institute for Demographic Research, 2008.

[57] See: McDonald P. *The "Toolbox" of Public Policies to Impact on Fertility – A Global View*. Paper presented at the annual seminar of the European Observatory on Family Matters, Low Fertility, Families and Public Policies. Sevilla: European Observatory on Family Matters, Low Fertility, families and Public Policies, 2000. URL: https://digitalcollections.anu.edu.au/bitstream/1885/41446/3/sevilleMcD1.pdf; D'Addio A.C., d'Ercole M.M. *Trends and Determinants of Fertility Rates in OCED Counties: The Role of Policies*. Paris: OECD, 2005; McDonald P. *Low fertility and the state: the effectiveness of policies. Low fertility in Russia: challenges and strategic approaches*. [Nizkaya rozhdayemost' i gosudarstvo: effektivnost' politiki. Nizkaya rozhdayemost' v Rossiyskoy Federatsii: vyzovy i strategicheskiye podkhody]. Moscow: Prava cheloveka, 2006. P. 27–56; Bradshow J. *Fertility and Public Policy: How to Reverse the Trend of Declining Birth*. Munich: Social Policy Research Unit, 2008; Klusáček J. 2010. *Effects of Different Measures of Family Policy on Fertility*. Sociologicke večery. www.sociologickevecery.fsv.cuni.cz/prace/2010/Klusacek.pdf; OECD. *Doing Better for Families*. Paris, OECD, 2011. URL: http://www.oecd-ilibrary.org/ social-issues-migration-health/doing-better-for-families_9789264098732-en.

measures to support families with children helped to bring total fertility from 1.6 to 2.07 childbirths per woman from 1994 to 2010, restoring fertility to the population replacement level. Also in Sweden, such measures raised fertility from 1.5 to 1.98 childbirths per woman over 1999–2010. Such fertility gains may be sufficient (needless to say, provided that Russian excessive mortality is liquidated) to prevent depopulation of our country[58].

International and Russian practice shows that the most effective measures of support for families with children in terms of effects on fertility are as follows:

- sufficient levels of family policy spending;
- increased payments and allowances to families with children and tax refunds for parents;
- accessibility of child care services, especially for children under three years;
- flexible working hours for mothers;
- housing for families with children.

We believe the most important policy actions in regard to fertility were mentioned in the State of the Nation Address by Russian President Vladimir Putin (12 December 2012): these are to create favorable conditions for combining motherhood and professional activity, to develop the childcare and pre-school education system and to provide housing support to families with children. Below we consider each of these areas, including existing successful international experiences and opportunities for their adaptation to Russian conditions.

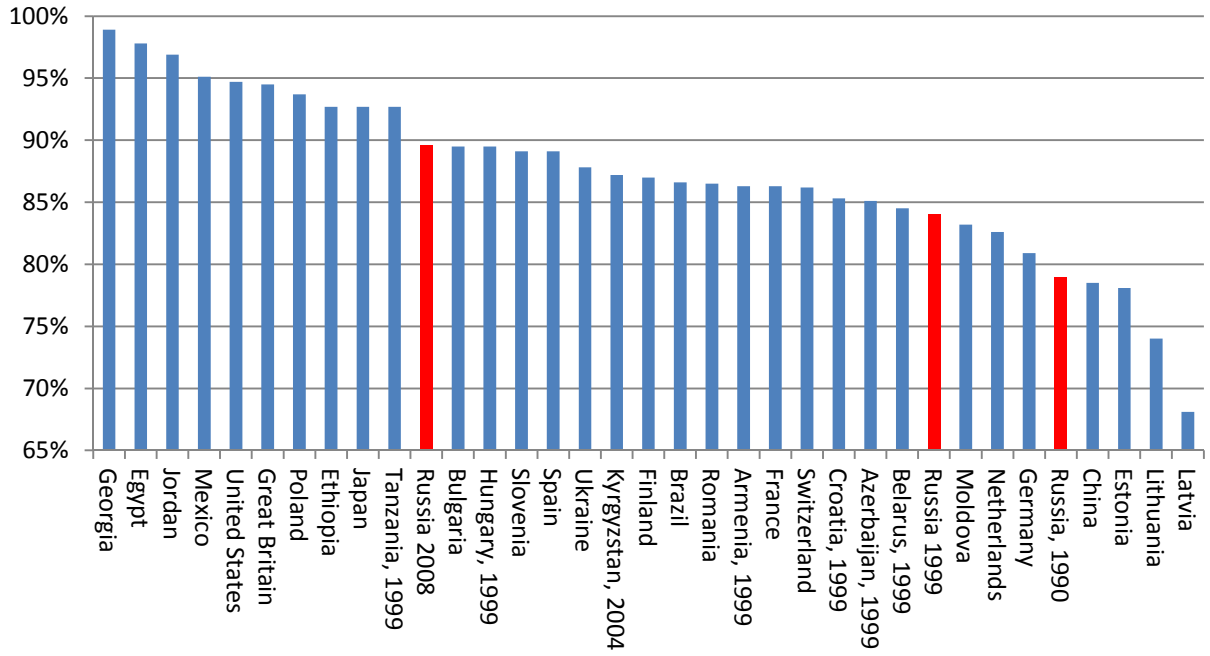
3.1.1. THE HIGH IMPORTANCE OF FAMILY VALUES IN RUSSIA

Before going into detail on specific policies to raise fertility we should note one exceptionally favorable factor for future fertility growth: in recent years the commitment of Russians to family values has surged higher. Inasmuch as Russians already desire to have more children than they actually have now, the potential for policy measures to increase fertility is in some ways much stronger in Russia than in other European countries. Therefore, measures to support families with children may yield good results in Russia with less spending than in some OECD countries pursuing large-scale family policies. In terms of commitment to traditional family values Russia is better positioned than most European countries, including countries with higher fertility rates (France, Finland). According to numerous surveys, **family is a top priority for the Russian people** and the main value for the absolute majority of people. **Families want to have more children**: more than 50% of families would like to have two children and more than 25% three children. The desired number of births in a family (2.33) is higher than the replacement requirement, and this value is set to rise as the total fertility rate grows.

[58] Korotayev A., Khaltourina D., Bogevolnov J. Mathematical modeling and forecasting Russia's demographic future: five scenarios. *Scenario and prospects for the development of Russia* [Matematicheskoye modelirovaniye i prognozirovaniye demograficheskogo budushchego Rossii: pyat' stsenariyev. Stsenariy i perspektiva razvitiya Rossii] / Ed. by V. Sadovnichy, A. Akaev, A. Korotayev G, Malinetsky. M. Lenand / URSS, 2011. P. 160–196.

According to the latest wave of *World Values* surveys, 90% of polled Russian people said that a family is very important for them. This indicator is average as compared to other countries worldwide: Russia lags behind such countries as Georgia, Egypt, the USA etc., but outpaces most Western European countries, including Finland, Germany, Switzerland, the Netherlands, etc. Moreover, the share of Russian people saying "family is very important for me" has been rising steadily: from 79% in 1990 to 84% in 1999 and 90% in 2008, or up 11% within 19 years (see Figure 3.2).

Fig. 3.2. The share of respondents mentioning family as their top priority in Russia and other countries[59]



The fact that family is valued more highly in Russia than in some European countries with stronger fertility (France, Finland) suggests that Russia's potential for further stimulation of fertility rates by family support measures is quite large.

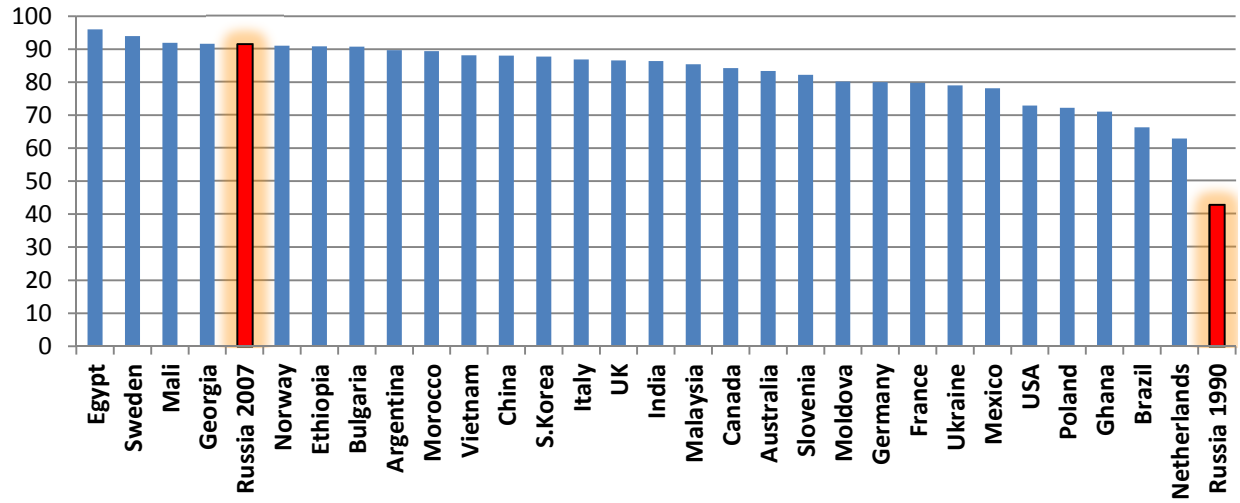
The high importance of family is also shown in a recent Russian survey of life priorities. For instance, when asked "What targets would you like to achieve in your life?", the most common response from respondents in all age groups was "Create a happy family and bring up good children" (93% of all people polled). The following three most popular answers were "Have reliable friends" (91%), "Live my life honestly" (90%) and "Have an interesting job" (86%)[60].

[59] Source: *World Values*. 5th wave (2005-2008) for the countries of the world as well as previous waves for Russia.

[60] Friends, family, honest life: life priorities of Russian people. *Omnibus VTSIOM Weekly poll*, press release 1973, 11.03.2012. URL: http://wciom.ru/index.php?id=459&uid=112593.

Another measure of how important families are for the Russian people is the unprecedented growth of trust in the family, which has recently doubled, rising from the lowest level worldwide into the top ten. In fact, the share of respondents who fully trust their families has climbed to a record high in Russia – from 46% in 1990 (the lowest globally) to 91% in 2007 – ranking 10th among 53 countries. With that, Russia has notably outstripped such developed countries as the USA, France, Switzerland, Germany and many post-socialist countries, such as Ukraine, Poland, Romania, Moldova (Figure 3.3).

Fig. 3.3. The share of respondents who fully trust their families[61], 2005 – 2008

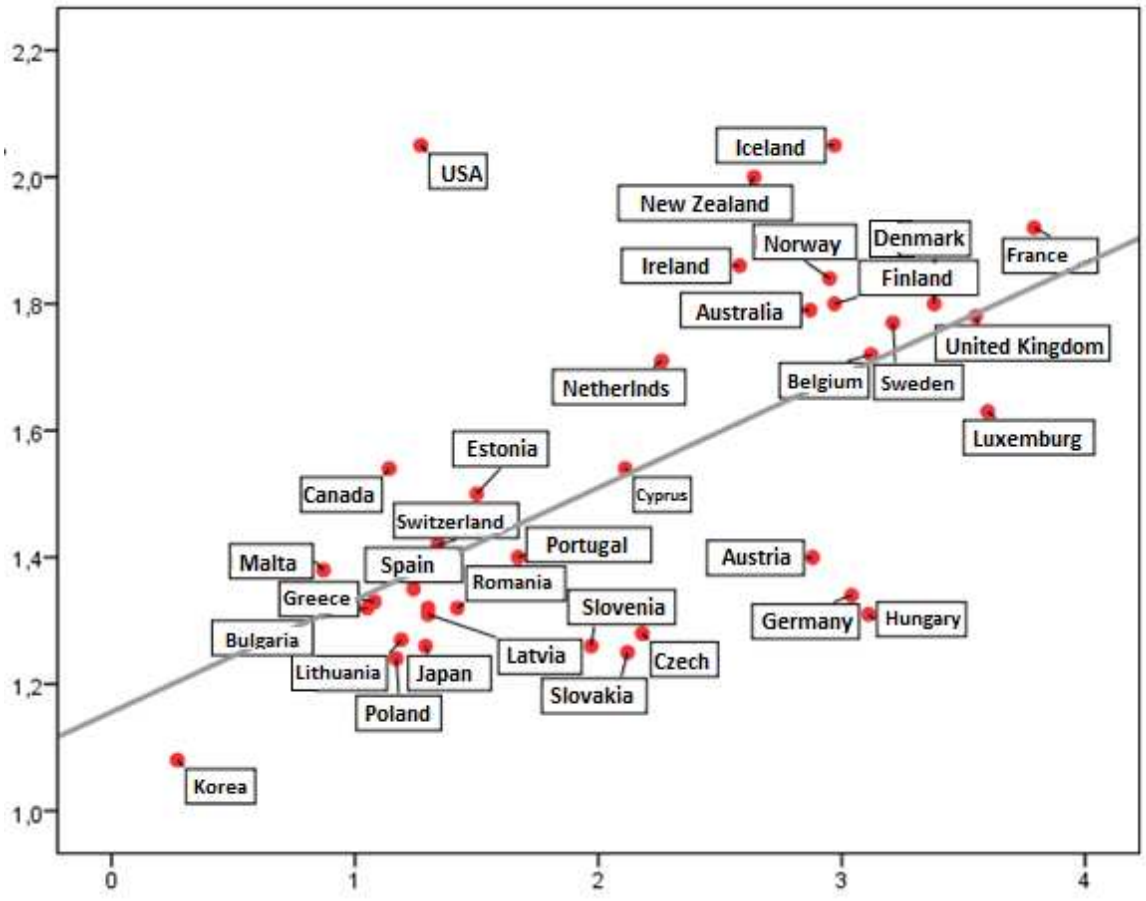


[61] Source: *World Values*. 5th wave (2005-2008) for the countries of the world as well as previous waves for Russia.

3.1.2. FAMILY POLICY SPENDING

By and large, OECD countries with higher family policy spending have higher fertility[62]. We see that fertility rates clearly correlate with public family spending. As showcased by the chart (Figure 3.4), European countries reach the fertility rate of 1.8–2 births with family policy spending at 3–4% of GDP, provided that these financial resources are spent effectively.

Fig. 3.4. Correlation between state family policy spending (% of GDP) and total fertility rate (births per woman) in OECD countries in 2005



It is true that several OECD countries have spent that much or more on family policies without raising fertility. However, this Central European cluster is an example of ineffective family policy spending, based on a model of stay-at-home married mothers raising their children. These countries' family policies virtually ignore women who work and single mothers, and thus fits poorly to the realities of child-bearing and family structures in modern industrialized societies. These countries have erred by allocating money only to bonuses for families with children but not to the more important and effective policies of supporting working women with children through funding for child-care and preschools.[63]

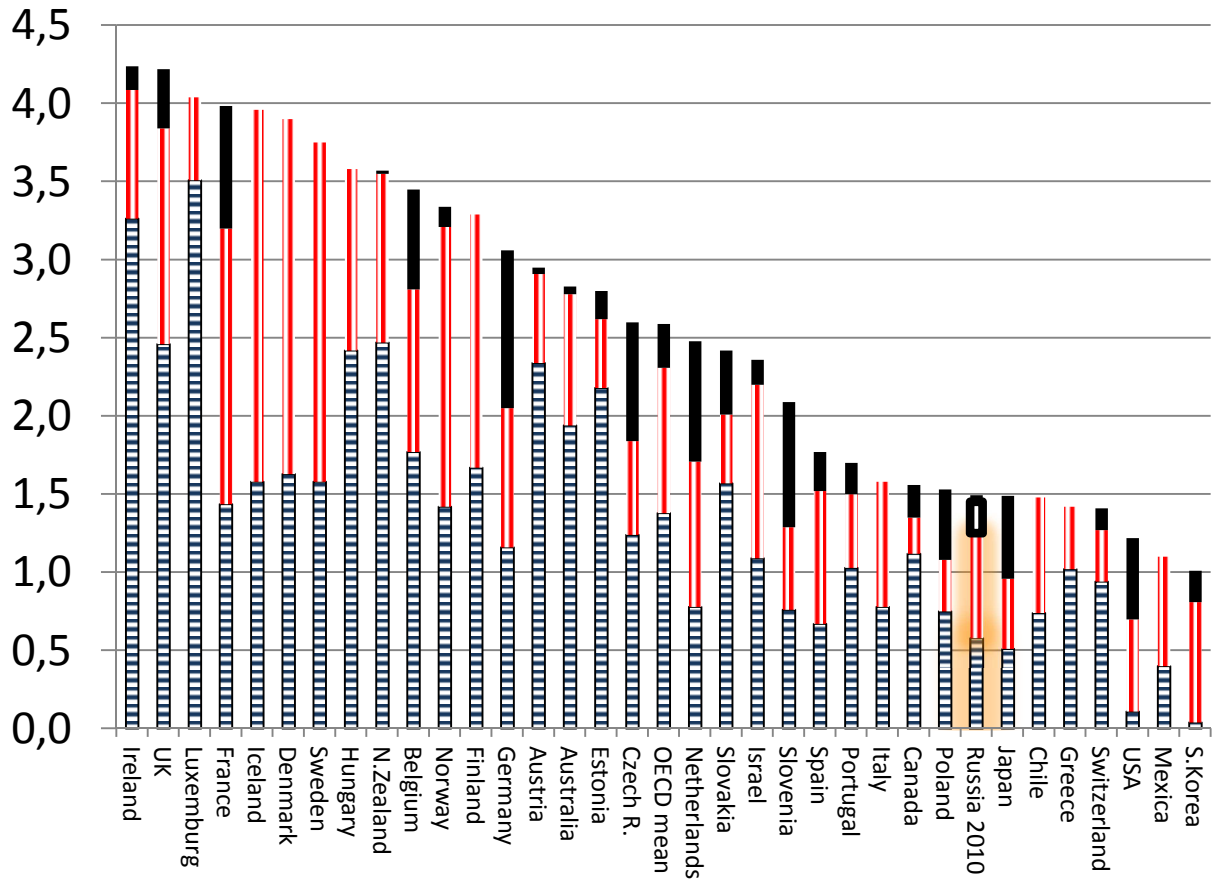
Russia's family policy spending (calculated using the OECD methodology), including maternity capital, amounted to 1.5% of GDP in 2010. According to the Audit Chamber, public

[62] For comparative purposes, the Organisation for Economic Cooperation and Development (OECD) has developed its standard indicator *Family policy spending*. This indicator includes expenses on children benefits, birth and maternity leave payments, baby care service fees (child day care centres, nurseries, childminders), including payments to parents for these purposes, tax refund for families with children.

[63] A 200 Billion Euro Waste: Why Germany is Failing to Boost its Birth Rate. *Der Spiegel*, February 5th, 2013. URL: http://www.spiegel.de/ international/germany/study-shows-germany-wasting-billions-on-failed-family-policy-a-881637.html.

financing to support family, women and children amounted to 0.79% of GDP in 2010, not including regional spending[64].

Fig. 3.5. Family support spending (payments, services and tax benefits) as % of GDP in OECD countries in 2009 and in Russia in 2010 (estimate)



Note: calculations of public family support spending in Russia were made using the OECD methodology based on Report on execution of the consolidated budget of the Russian Federation by the Federal Treasury of Russia and on execution of budgets of the off-budget funds. These calculations did not include payments to certain categories of citizens (military serviceman, radiation victims, etc.) or payments related to orphans.

Payments to families with children in Russia (not including maternity capital) in 2010 were about 0.58% of GDP, much lower than in countries with successful family policies, such as France or Sweden. Tax refunds in 2010 amounted to 0.044% of GDP, which is quite low as compared to other countries. However, there is no reason to believe that this type of support to families is more important than the other ones.

Russian public spending on children's services (child day-care centers, nurseries) are slightly below the average in the OECD countries, but it is far below the spending in those OECD countries with near-replacement fertility. Obviously, in the future the amount of family policy spending should increase and these allocations should become more effective.

The experience of successful OECD countries in raising fertility to near-replacement levels shows that what is necessary is an integrated and diverse set of family policies, that provide *both* material support for families with children (income or housing subsidies, tax refunds, bonuses) *and* institutional support that enables women with children to continue working (day-care centers and pre-schools, protected maternity leaves, job security). It is by

[64] *Analysis of the efficiency of public spending. Report of the State Scientific and Research Institute of System Analysis under the Audit Chamber of the Russian Federation*. Moscow: The Audit Chamber of the Russian Federation, 2011. P. 34.

making children *neither* an excessive financial burden, *nor* a hindrance to work and career, that successful family policies have promoted higher fertility rates. However, this combination has usually required an allotment of over 2.7% of GDP to the full range of family-support policies.

3.1.3. ADDRESSING CHILDREN AND FAMILY POVERTY

> We have to end the situation where the birth of a child causes a family financial difficulties or pushes them to the edge of poverty[65].
>
> Vladimir Putin. Address at the meeting in Naberezhnye Chelny on implementation of demographic policy and regional programs targeting the healthcare system progress. 15.02.2012

The policy to address poverty, including family and child poverty, depends on how the poverty line is determined.

Russia uses the absolute poverty level, measured as the share of population with money income below the minimum subsistence level (MSL), which is calculated based on the consumer goods basket. In Russia, this metric declined from 33.5% in 1992 to 12.7% in 2011[66]. However, in this case the key statistical characteristic is the function of the approved composition of the consumer goods basket.

OECD countries use the relative poverty approach, where the poverty line is determined as 60% of the median income (the EU methodology). The level of relative poverty in Russia, calculated using this method, was in the range of 26–33% in 2010, or much higher than the average for the EU countries (16.4%), which is a direct consequence of the extremely high level of inequality in Russia[67].

The USA widely uses for social discussion purposes the Self-Sufficiency Standard, or the level of income at which a family may realize its basic needs, including food, housing, child care services, healthcare, transport and other necessary expenses[68].

It's noteworthy that the minimum subsistence level in 4Q 2012 was RUB 6,705 per month, 60% of median income in 2011 was RUB 9690 per month, and the threshold of self-sufficiency standard in 2012 was RUB 12,400–14,100 per month, subject to family composition. Thus 12.7% of the population was considered poor in terms of income below the minimum subsistence level in 2011, while 25.5% of Russian people had income below the 60% of median income[69].

The high level of inequality in Russia (by the European standards) has a strong impact on children. Relative child poverty in Russia is 29.3%, while it ranges from 6% to 8% in Europe. At present, the risk of falling below the poverty line increases for a family with each subsequent birth. In 2011, the share of low-income households (with per capita income below the minimum subsistence level) was 18% among single-child families, 26% among families with two children and 46% for full families with three and more children[70].

The level of poverty in Russia is extremely high as compared to OECD countries and concentrated among families with children, especially large and single-parent families.

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[65] http://archive.government.ru/special/docs/18137/.

[66] The Russian Federal Statistics Service. *The number of people with income below the minimum subsistence level and money income deficit.* URL: http://www.gks.ru/free_doc/new_site/population/urov/urov_51g.htm. Cited on 11.04.13.

[67] EUROSTAT. At-risk-of-poverty rate by poverty threshold, age and sex. URL: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ilc_li02&lang=en. Cited on 20.02.12.

[68] Center for Women's *Welfare. The Self-Sufficiency Standard.* URL: http://www.selfsufficiencystandard.org. Cited on 10.05.2013.

[69] Calculations by Lyudmila Rzhanitsyna and Tatyana Velikanova.

[70] The Russian Federal Statistics Service. *Breakdown of low income population by main groups (based on selective research of household budgets; in percent).* URL: http://www.gks.ru/ free_doc/ new_site/ population/urov/urov_53.htm. Cited on 11.04.13.

Households with children and children below 16 years of age have the maximum exposure to poverty; poverty among children below 16 years old in 2011 was 75% higher than the Russian average. The share of families with children among the low-income population increased against the backdrop of positive GDP and consumer income growth.

40% of large families experience significant problems with housing (old, damp housing in urgent need of overhaul), and with seasonal clothing and footwear supply to children; one third of families are unable to purchase all the medicines prescribed by doctors and have to underfeed themselves; and children in 25% of larger families are unable to obtain secondary education, since they have to earn their living (only 4% for families with one or two children). These extreme difficulties of large families currently act as effective anti-advertising for large families and high fertility rates[71].

Single-parent families with children, or about **19%** of all families with children below 18 years old, represent a very sensitive group. Children in single-parent families are exposed to becoming low-income due to massive non-payment of alimony, with regular payments accounting for only 30% of all cases, and 50% of broken partnerships see no alimony payments at all. Moreover, in 50% of cases alimony payments account for less than half of a child's MSL[72].

Even 16% of full single-child families were unable to overcome some characteristics of poverty and nearly 30% of families with two children had income below the minimum subsistence level in 2009. Poverty among single-child families may not be considered a norm, since this means that average salary of one or both parents is below 1.5 MSL[73].

The reason behind high levels of family and child poverty (both in absolute and relative terms) is that sufficient public measures have not been taken to address poverty and inequality among households with children. Societies with a high level of inequality (like in Russia) will inevitably have a high level of child poverty, since children are among the most sensitive economic categories of population, especially where no special measures have been taken to support families with children.

Measures to address poverty in the society as a whole, including mechanisms to distribute income among various categories of citizens and among regions and target benefits to population with the lowest income, require separate consideration.

As regards the current family support system, including benefits, it does not provide sufficient social support to families with initially low income and high risk of poverty and offers almost no opportunities for low-income families to overcome poverty. For most types of families, the cumulative "children's" package per child remains lower than the minimum subsistence level per child. Meanwhile, in European countries family policy measures produce a significant impact on children poverty. Specifically, in France, they have more than halved the poverty level in large (three and more children) families.

All of the most effective measures to support birth rates have a considerable positive impact on poverty among households with children. Benefits to families with children represent a strong instrument to address children and family poverty. In addition, measures to support mothers on the labor market, such as affordable child day-care centers, public nurseries, and flexible working hours for mothers also represent an important means of reducing family and children poverty, since they increase the number of salary earners in the family and add to earlier and better employment of mothers after their maternity leave.

[71] OECD, *OECD Family Database*. Paris: OECD. 2011. P. 43.
[72] OECD, *OECD Family Database*. Paris: OECD. 2011. P. 46–47.
[73] OECD, *OECD Family Database*. Paris: OECD. 2011. P. 47.

3.1.4. BENEFITS AND TAX REFUNDS FOR FAMILIES WITH CHILDREN

According to various surveys, benefits and tax refunds for families with children rank among the most effective measures which positively impact the fertility rate[74]. However, it is in the share of payments to families with children as a percent of GDP where Russia is lagging behind OECD countries.

International practice analysis shows that the following types of benefits are used for families with children[75]:

Universal child benefit is paid as long as a child is under age or until he/she gets a university degree. Such benefits add to income redistribution in the society in favor of families with children, since children by definition have no income of their own. The amount of the benefit may vary subject to the child's order in the family and the family's material standing.

Universal child benefit is paid in the following countries: Austria, Belgium, United Kingdom, Denmark, Germany, Ireland, Italy (for the third and subsequent childbirths), Luxembourg, Mexico, the Netherlands, Norway, Poland (since 2004), Portugal, Slovakia, Finland, France (for the second and subsequent births), Switzerland, Sweden. Russia has no universal federal child benefit which largely explains its relatively low budget spending on payments to families with children as compared to OECD countries. Some regions allocate such payments to large families. However, as a rule, the amount of this payment is low.

Child benefits for low-income families with children – unlike the universal benefit, such benefits are paid only to low-income families with children. In 2013, Russia introduced a monthly benefit for poor families with 3 or more children in regions with unfavorable demographic situations in the amount equal to the minimum subsistence level determined in the region. The benefit is paid until the child becomes three years old[76].

Maternity payments are paid to mothers and, in some countries, to fathers, to take care of their babies from childbirth to the age ranging from 2 months to 3 years. The benefit amount may be equal to a certain percentage of the mother's or father's salary.

In Russia, such benefits amount to 40% of the salary of a woman (or a man where benefit is paid to a man) for the previous two years, but no more than RUB 16,241.14 per month. Federal Law No. 255-FZ of 29 December 2006 "On Mandatory Social Insurance in Case of Temporary Disability and due to Maternity" provides for a minimum monthly child care allowance, and the amount of this allowance to non-working women from 1 January 2013 was set at RUB 2,425 per month for first child and RUB 4,907.85 per month for second and subsequent children[77]. The benefit is paid until a child gets 1.5 years old.

It should be noted that the allowance has a low compensation ratio and that a lower compensation ratio will be less effective as a measure to support fertility rates for women with high income. We would also point out the extremely low level of support to Russian non-working women.

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[74] McDonald P. 2000. The "Toolbox" of Public Policies to Impact on Fertility – A Global View. Paper presented at the annual seminar of the European Observatory on Family Matters, Low Fertility, Families and Public Policies. Sevilla; D'Addio A. C., d'Ercole M. M. *Trends and Determinants of Fertility Rates in OCED Counties: The Role of Policies*. Paris: OECD. 2005; McDonald P. Low fertility and the state: policy efficiency. *Low fertility in the Russian Federation: challenges and strategic approaches*. Moscow: Human Rights, 2006. P. 27−56; Bradshow J. *Fertility and Public Policy: How to Reverse the Trend of Declining Birth*. Munich: Social Policy Research Unit, 2008; Klusáček J. Effects of Different Measures of Family Policy On Fertility. 2010. *Sociologicke večery*. www.sociologickevecery.fsv.cuni.cz/prace/2010/Klusacek.pdf; OECD. *Doing Better for Families*. Paris: OECD, 2011. URL: http://www.oecd-ilibrary.org/social-issues-migration-health/doing-better-for-families_ 978926 4098732-en; Thévenon O., Gauthier A. Family Policies in Developed Countries: A 'Fertility-Booster' with Side-effects. *Community, Work and Family* 14/2 (2011): 197–216.

[75] OECD. Notes for the social expenditure age-spending profiles. *Doing Better for Children*. Paris: OECD, 2009. URL: http://www.oecd.org/els/family/44362348.pdf.

[76] The Ministry of Labour and Social Security of the Russian Federation. Families in regions have started to receive monthly monetary payments for third childbirth. 8 April 2013. URL: http://www.rosmintrud.ru/videobank/366.

[77] The Ministry of Labour and Social Protection of the Russian Federation. On 15 May the International Family Day is celebrated. 15.05.2013. URL: http://www.rosmintrud.ru/social/family/104.

International research shows positive[78], statistically insignificant[79] and negative[80] impact of maternal leave duration on fertility rates. Thus, it is not clear whether longer maternal leave increase or decrease fertility, but in any case the effect is small.

Baby bonuses are intended to compensate expenses which a family faces directly after a baby is born. Some countries where such bonuses were introduced soon saw a notable increase in birthrates, including in Spain (EUR 2,500), Australia, Singapore, Canada[81].

In Russia, a lump-sum maternity benefit is paid in the amount of RUB 8,000 (as provided by Article 12 of Federal Law No.81-FZ of 19 May 1995 "On State Benefits to Citizens with Children"). Also, Federal Law No. 256-FZ of 29 December 2007 "On Additional Measures of State Support to Families with Children" provides for maternity capital to a family at second childbirth. Upon the child reaching three years of age, this capital may be spent to improve housing conditions, get education or increase a mother's pension accruals. A small part of maternity capital may be paid to parents in cash.

Judging by the increase in fertility rates in Russia after maternity capital was introduced, which appeared to be the strongest among European countries, maternity capital has proved to be a successful innovation that may also be implemented in other countries looking to increase fertility.

Meanwhile, the administration of maternity capital needs adjustments and wider application. The issue is especially important for rural regions where the low income problem is much more relevant than housing, education and pensions. This is indirectly underscored by fraud cases which are mainly caused by poverty and the impossibility of financing current children's needs. International family policy experts recommend as a top priority to support families with small children. Therefore, it makes sense to increase the share of maternity capital that may be paid in cash at childbirth and unconditionally. Regions should be granted an opportunity to participate in decision-making on the wider application and uses of maternity capital and, concurrently, a right to control how funds are used.

Tax refunds are provided to working parents. Such measures are considered more effective than benefits in terms of encouraging parents' employment, while benefits appear to be more effective in terms of supporting fertility rates. According to Article 218 of the Russian Tax Code, since 1 January 2012 the standard tax refund in Russia is RUB 1,400 at first childbirth; RUB 1,400 at second childbirth and RUB 3,000 at third and subsequent childbirths. This refund is provided for persons with annual salary of at least RUB 280,000.

Possible solutions in regard to material benefits to support higher fertility:

- increase consolidated budget spending on family policy from 1.5% to 3% of GDP;
- develop family economic security standards and introduce them in regions as an additional factor for poverty assessment purposes;
- provide targeted support to low-income families on a social contract basis.
- introduce a universal child benefit;
- increase the minimum and maximum amount of maternity benefits;
- in addition to the benefit, introduce at childbirth a certificate (voucher) for a minimum children's goods package, such as bed, baby carriage, clothing etc.

[78] Adsera A. Changing Fertility Rates in Developed Countries: The Impact of Labor Market Institutions. *Journal of Population Economics* 17 (2004): 17–43; Luci A., Thévenon O. *The Impact of Family Policy Packages on Fertility Trends of OECD Countries. Paper presented at Population American Association meeting*, Washington, March 30 – April 2, 2011. URL: http://halshs.archives-ouvertes.fr/docs/00/66/06/30/PDF/REPRO2INEDWP.pdf.

[79] Gauthier A., Hatzius J. Family Benefits and Fertility: An Econometric Analysis. *Population Studies* 51 (2007): 295–306.

[80] D'Addio A. C., d'Ercole M. M. *Trends and Determinants of Fertility Rates in OCED Counties: The Role of Policies*. Paris: OECD, 2005; Hilgeman Ch., Butts C. Women's Employment and Gertility: A Welfare Regime Paradox. *Social Science Research* 38 (2009): 103–117.

[81] Goldstein J., *et al*. The End of "Lowest-Low" Fertility? *Population and Development Review* 53/4 (2009): 663–699; OECD. *Doing better for families*. Paris: OECD, 2011. P. 112.

- wider application of part of maternity capital for current needs on a social contract basis, and in the case of rural families for setting up their farms, family businesses and car acquisition.
- introduce a minimum amount of alimony payment and the possibility of paying them in case a parent avoids payments through the specialized fund with subsequent collection of payments from the non-payer.
- co-finance payment of regional maternity capital for third and subsequent childbirths to the level of the federal payment in demographically depressed areas.
- increase tax benefits and refunds for parents with large families to the level at least equal to the child's minimum subsistence level.

3.1.5. COMBINING MOTHERHOOD AND CAREER

> "We need to create favorable conditions primarily for women so that they did not fear that having a second and third child would close the path to a career, to good jobs and make them limit themselves just to housekeeping. What we have started to do is to resolve problems of waiting lists to child day care centers, professional retraining programs for women with children, support to flexible employment would directly impact a family's choice in favor of second and third child."
>
> V.V. Putin, State-of-the-Nation Address, 12.12.2012

An opportunity to combine work and parenthood, including motherhood, is a key to successful demographic policy in the modern world. International experience in developed countries underscores that fertility is currently higher in areas where the percentage of working mothers is higher, where the level of women's education is higher and where the unemployment rate is lower (whereas in late 1970s the correlation was the opposite)[82].

For instance, in such countries as Greece, Spain, Italy, Slovakia, Hungary, only 50–60% of women with children have paid employment, and fertility rates in these countries are quite low, much lower than the replacement level (1.25–1.5 childbirths per woman). Meanwhile, economic activity among their counterparts with no children is 5–10% higher, i.e. childbirth prevents a woman from participating in the labor market. On the contrary, in more demographically successful developed countries, such as Iceland, France, Sweden, Finland, and Denmark, where the fertility rate ranges between 1.9–2.2 childbirths per woman, 75–85% of all mothers aged 25–54 have paid employment and the gap between the employment rate of mothers and childless women is minimal[83].

As a rule, mothers with children under three years old more often go back to work in demographically successful countries than in countries with low fertility. For instance, about 60% of women with children under three years old work in France, more than 70% in Sweden and Denmark, whereas in the Czech Republic and Hungary only 15–18% of such women are working.

It is extremely important to provide an opportunity for combining motherhood with career to women with a high level of education. Taking into consideration that about 83% of young people of relevant age in Russia now have higher education, it is hard to overestimate the importance of taking measures that facilitate combining motherhood and careers.

Creating favorable conditions for employees to combine job and parenting duties is not a burden for employers either. In particular, researchers from Harvard University and the London School of Economics, having surveyed 450 firms in France, Great Britain, Germany and the USA have concluded that creating family-friendly jobs does not at all weaken a firm's

[82] See: D'Addio A. C., d'Ercole M. M. *Trends and Determinants of Fertility Rates in OCED Counties: The Role of Policies.* Paris: OECD, 2005. P. 28.

[83] OECD. *Family Database*, OECD, Paris, 2011. http://www.oecd.org/els/ familiesandchildren/ oecdfamilydatabase.htm.

effectiveness or profitability. Expenses to create a "family friendly attitude" are rewarded by additional motivation of employees, fewer sick leaves, declining churn rate, improved productivity and employee satisfaction levels. Introduction of family-friendly jobs is extremely effective for highly qualified professionals who are hard to replace and for positions with flexible working hours. It's noteworthy that firms with high quality management started to introduce such practices, as did firms where women have a strong presence in management[84].

Russia-specific features

As noted above, the current generation of young working-age people in Russia is called to resolve two tasks, economic and demographic, at the same time. Taking into consideration the upcoming massive loss of the working-age population due to the demographic hole, the value of each Russian employable person for the national economy will increase. The country cannot allow a large number of working women (including highly qualified specialists) to "fall out" of the labor market for several years due to the fact that they have to stay with children at home solely because of a lack of supporting conditions to enable them to easily combine parenthood and professional activity.

On the other hand, constant competition for the best jobs and social positions in modern market societies leads to postponement or eventual cancellation of childbirths. Therefore, a woman is more inclined to decide in favor of having a second and third child in those societies where motherhood does not produce a strong obstacle to her income and career. Therefore, creating favorable conditions for a combination of motherhood and career is a strategic priority to support fertility and families with children.

According to surveys, an absolute majority of Russian women are inclined to select a combination of work and motherhood as their life strategy. For instance, according to the 2008 survey, more than 80% of Moscow women choose this as a preferred life strategy[85].

One of the top priorities in providing support to working mothers is to run an affordable childcare system providing diverse services of high quality. This sphere will be considered in detail in the next section.

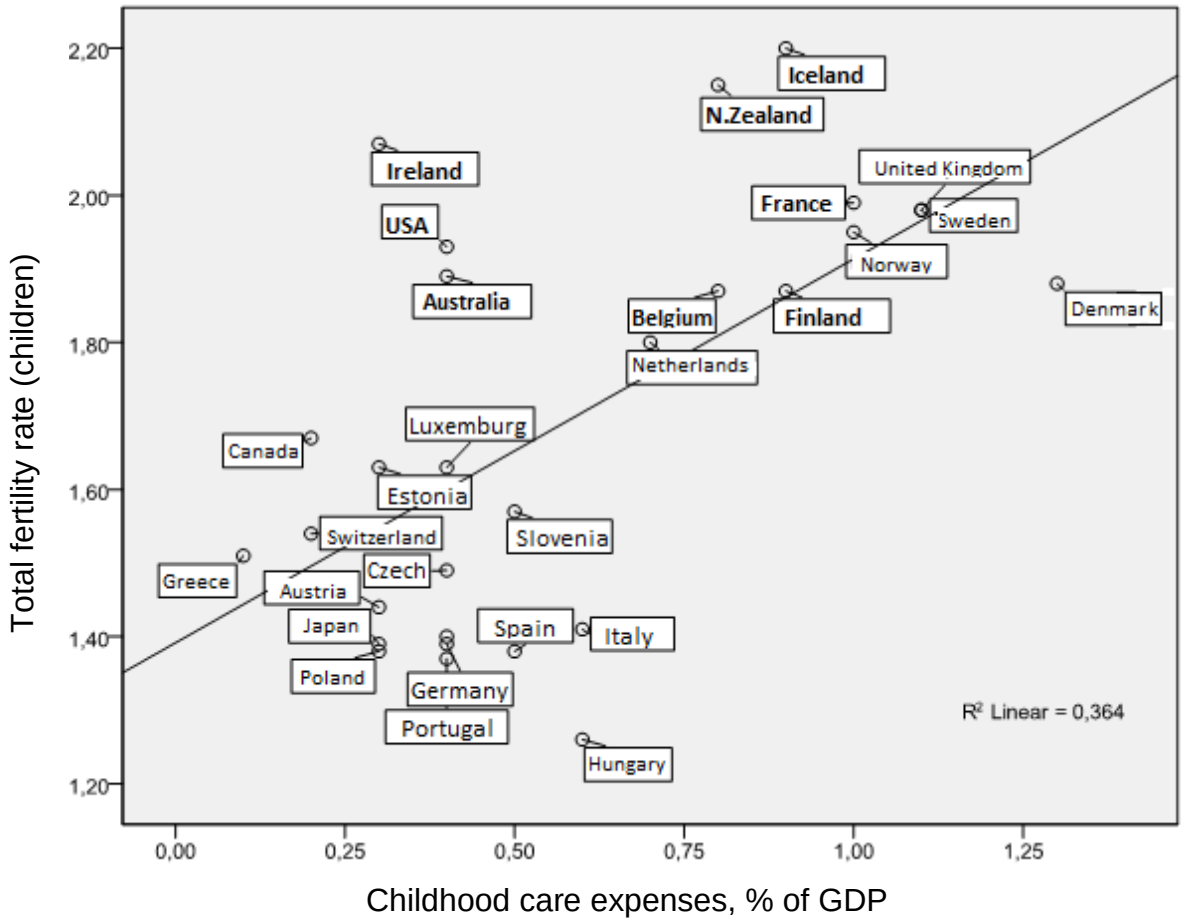
3.1.6. AN AFFORDABLE AND DIVERSE SYSTEM OF CHILDCARE SERVICES (NURSERIES, CHILD DAY-CARE CENTRES, CHILDMINDERS, ETC.)

Development of an effective childcare system (child day-care centers, child-minders, nurseries) is one of the most effective measures of any fertility support policy. As shown in Figure 3.6, among all types of family policy spending in OECD countries, spending on the childcare system (child day-care centers, nurseries, child-minders) most strongly correlates with the fertility rate.

[84] Bloom N., Kretschmer T., Van Reenen J. Are Family-Friendly Workplace Practices a Valuable Firm Resource? *Strategic Management Journal* 32/4 (2011): 343–367. See also: OECD. *Doing better for families*. Paris: OECD, 2011. P. 131.

[85] Report on representative sociological survey "Motherhood and career in life of women with children in Moscow" by all administrative districts (sampling represented by 1,464 people) as part of the "Working Mothers" program ordered by the Committee for Public Relations of the city of Moscow. 2008. URL: http://www.mamanarabote.ru/index.php/issledovania-/sotspolitpredpriatia/355-2010-08-04-05-53-22.html.

Fig. 3.6. OECD countries: correlation total fertility rate and spending on childcare system as % of GDP, 2006



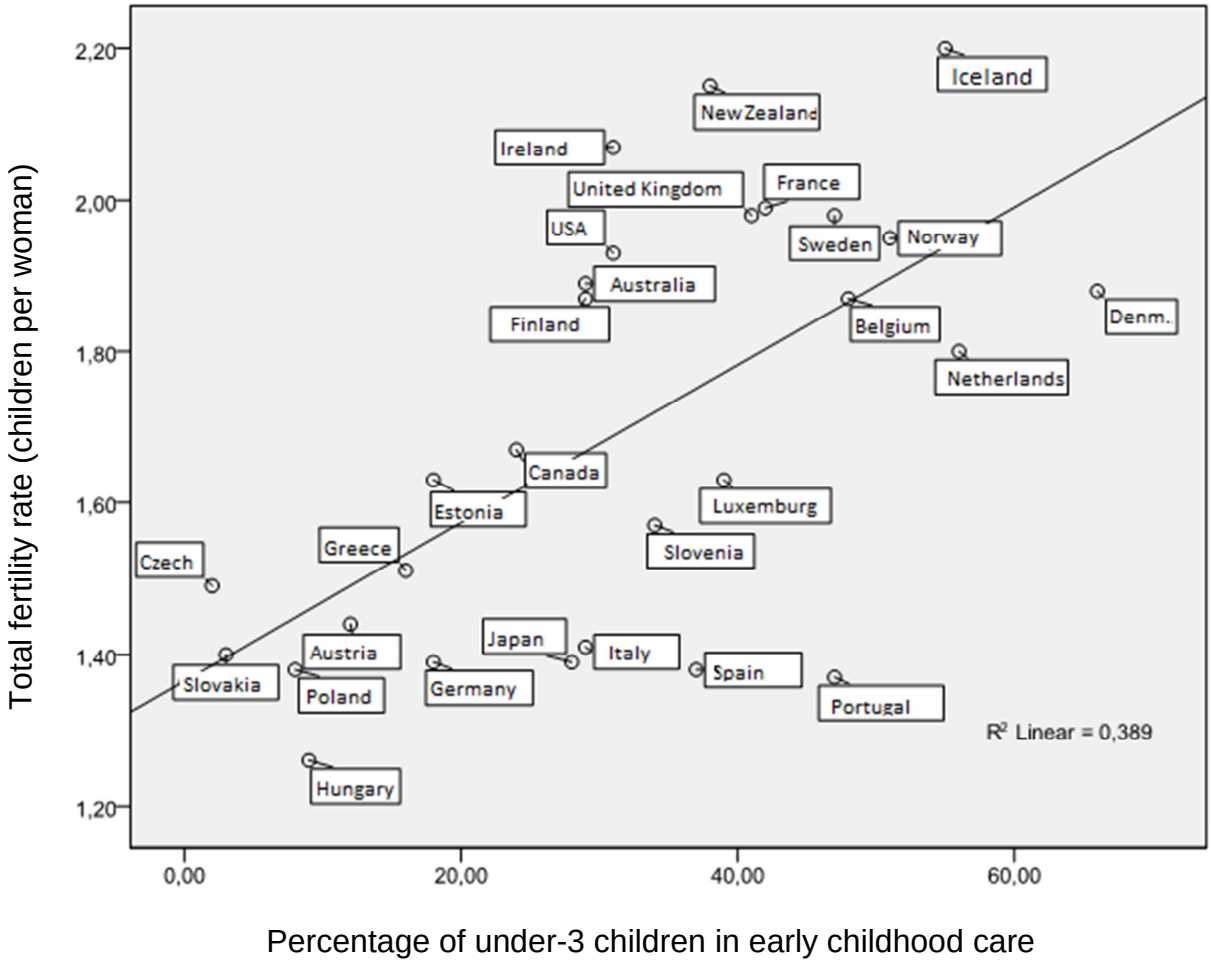
Note: Correlation factor 0.603, significance 0.001. Source: OECD Family Database, OECD, Paris. URL: http://www.oecd.org/els/familiesandchildren/oecdfamilydatabase.htm

We can see that most countries are divided into two quite clearly defined groups:

- countries with low fertility rates and low public spending on their child care systems (including many South and Central Europe countries, and a number of former socialist countries);
- countries spending a considerable part of GDP (0.75–1.3%) to run a comprehensive childcare system and having fertility rates close to the population replacement level (France, Great Britain, Scandinavian countries).

In addition, it is extremely important to develop within the child care system not only institutions for children above three years old, but also a range of services for the youngest (below three years old) children. According to our analysis, **all** demographically successful European countries have ensured high coverage of under-3 children within their childcare system. For instance, 40% of under-3 children visited various child care institutions in France and Great Britain, more than 50% in Norway and Iceland and 66% in Denmark. By comparison, countries with lower fertility rates have much weaker coverage, such as only 2–3% in the Czech Republic and Slovakia and 18% in Germany.

Fig. 3.7. OECD countries: correlation between standard birth rate and the percentage of under-3 children in early childhood care system, 2006



Correlation factor 0.623, significance 0.001

However, in no way does this mean that priorities of the family policy should only include the under-3 childcare system, leaving older pre-school children out of attention. Demographically successful countries actively develop all types of services for all children of pre-school ages, which ensures very high coverage by this system of children below three years (see above) and children from three years to the time they go to school. For instance, this coverage was above 90% of children in Great Britain and 99% in France.

Such measures result in a substantial increase in mothers' participation in the labor market, which would considerably reduce children and family poverty (see below). As a matter of fact, the risk of child poverty is the lowest in families where both parents work.

The Situation in Russia

Russian families have unequal access to child day care centers, since those centers charge fees (and, therefore, are hardly accessible for the vulnerable households) and generally are insufficient in numbers to provide full coverage of children of relevant ages[86]. In 2009, 58% of children below six years were covered by preschool education (compared with about 90% in France)[87]. With a reduction in the number of child day-care centers, more than 1.9 million

[86] Is Russia prepared to invest in its future? Report of the Public Chamber of the Russian Federation. Moscow: Public Chamber of the Russian Federation, 2007. P. 8 (in Russian).
[87] OECD. Starting Strong II: Early Childhood Education and Care. Paris: OECD, 2006. P. 326–328.

children are on the waiting list to be assigned to preschool educational institutions. In 2000–2009, the number of families on the waiting list climbed nearly seven times[88].

Creation of the necessary capacity through building new child day-care centers is an extremely expensive measure (cost of construction may reach RUB 1 million per new child). An effective solution may be in the active development of the private sector of preschool education and childcare services, which is currently limited by excessive statutory regulation.

The question of childcare provision is most acute for the youngest children, with only 16% of children below three years provided with institutional care services (compared with 31% on the average for OECD and 48% in France). During the Soviet period, this issue was resolved through a system of nurseries. However, judging by the 2005 data, nurseries no longer function as a key preschool institution. Meanwhile, for many low-income and single mothers, nursery is almost the only institution which enables mothers to return to work and retain the level of family income, especially given that the payment of child allowance stops when a child becomes 1.5 years old. Nurseries also appear to be an important means to support women who wish (or even have to) go back to work as soon as possible. Therefore, the need for nurseries is high and restoration of this childcare institution for young children should become a priority[89].

Russian Prime Minister Dmitry Medvedev said on 29 May 2013 that RUB 50 billion would be allocated to develop children's preschool institutions[90]. However, only children's preschool institutions for children from three to seven years old were at issue.

International experience

The EU Summit in Barcelona in 2002 announced the goal of achieving full employment and therefore set targets to remove barriers to women's participation in the labor market. The Summit set targets of covering 33% of under-3 children and at least 90% of pre-school children with daycare and preschool slots by 2010[91]. Only some countries managed to achieve this target; however, those have been by far the most demographically successful (their fertility is mostly close to the replacement level).

Structure of child care services: France's experience[92]

It is interesting to consider the child care system established in France. It's noteworthy that such services cover 48% of children below three years and nearly 100% of children from three years to school age (most all children of this age category attend *ecole maternelle*). In 2009, the Government set a target to establish capacity for 200,000 children and it has been 70–80% achieved, which is considered a very good result.

In families with both parents working, various forms of child care institutions cover 64% of children below three years. 37% of these children are cared after by certified child-minders, 18% attend collective nurseries, 5% attend children's development care centers and other development centers, and personal child-minders visit 4% of children at their homes. Often, even where both parents work, they manage to take care of children below three years themselves (27%) – if one parent works at home or if parents have different working hours which enables them to take care of their children themselves. Grandmothers/grandfathers or other relatives help to take care of about 9% of children.

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[88] *Analysis of children's status in the Russian Federation: on the way to society with equal opportunities. Joint Report of the Independent Institute of Social Policy and the Children Fund of the United Nations (UNICEF).* Moscow: UNICEF, 2011. P. 164 (in Russian).

[89] *Work and family in life of women with preschool children: experience of the city of Moscow* / Ed. by O. B. Savinskaya. M.: Variant, 2008. P. 11 (in Russian).

[90] The Government of the Russian Federation. Video conference meeting on ensuring accessibility of school education. 29.05.2013. URL: http://government.ru/news/2137 (in Russian).

[91] Plantenga J., Remery Ch. European Commission's Expert Group on Gender and Employment Issues (EGGE). *The provision of childcare services: A comparative review of 30 European countries.* Luxembourg: Office for Official Publications of the European Communities, 2009.

[92] Prokofieva L., Rybalchenko S., Yuriev E. *France's family policy: opportunities to implement successful experience in Russia*. Moscow: Institute of Scientific and Social Assessment (ISSA), 2012 (in Russian).

If one parent does not work, only 63% of under-3 children stay at home. Other children either use nurseries (10%) or they are taken home to their child-minder (18%) or a child-minder comes to the child's family (2%). Needless to say, relatives also offer their help (4%).

Services for children below three years:

Certified child-minders accepting children at home

Most children below three years old (37% if both parents work) are looked after by specially trained tutors who accept children at home. Today, 300,000 such child-minders work in France and provide service for more than 1 million children. On average, one tutor cares for three children. Currently, such home nurseries are the most widespread and accessible form of taking care of very young children.

Collective nurseries

These are the main type of care for the 18% of children below three years old in families with both parents working. Nurseries work from 8:00 to 16:00 and may be combined with additional child care for 2–3 hours, if parents so desire. There are 10,500 such institutions (municipal, corporate, interdepartment) with a total capacity of about 400,000 children. The average capacity of each nursery ranges from 20 to 60 children. The permitted age for attendance is 0–6 years, with most children being under three years old, since most children later move to "mother schools" (similar to child day-care centers in the range of three–six years).[93].

In addition, smaller collective nurseries known as "micro-nurseries" have been developing actively since 2007, first in the experimental mode, and since 2010 this form was approved at the statutory level for wide application. These nurseries best meet families' needs and may adjust themselves to the working hours of parents. Their maximum capacity is 10 children. These nurseries have less staff and they cost less. They are most often established by private firms jointly with local authorities. Firms buy out capacities for children of their employees for 2–3 years, thereby ensuring permanent financing of children's institutions. In addition, children's stay may be financed from other sources – through the Family Allowances Fund as a "single sources benefit" or through public aid to families.

Child-minders attending parents at home

A less widespread option (covering 4% of all children below three years) is employment of child-minders attending parents' homes and taking care of about 1–2 children at the same time. Today, almost 45,000 child-minders offer their services, though this form is more widespread in Paris and remains underdeveloped outside the capital or major cities.

Organization, financing and quality control of children care services

Organization and control of services provided by home tutors

General Councils (regional parliaments) approve specialized healthcare institutions (PMI) which, jointly with the Family Allowances Funds, arrange the entire process: they perform selection, training, and certification of child-minders and ensure control over their activities. The state guarantees qualifications of tutors and the manager of an institution. Tutors have no diplomas, but there is a statutory norm whereby child-minders have to listen to a special course of 160 hours. The same organization (PMI) issues a permit to accept children at home in accordance with the established criteria: total housing area, availability and age of own children, pets, good command of French, etc. Even the most insignificant norms related to children's safety and development are approved at the statutory level. Statutory norms provide for one tutor per five non-walking children and one tutor per eight walking children. Quality control is performed about once a year and also at the parents' request.

[93] *L'accueil du jeune enfant en 2010. Données statistiques*. Paris: CNAF, 2011.

Organization and operational control of nurseries

The Family Allowances Fund finances or co-finances nearly all child care institutions. The mandatory requirement is to establish differentiated payment, subject to family income. Municipal or corporate nurseries receive cash directly, while certified child-minders are paid by parents who receive an allowance. Professional tutors are considered employees of an individual. Families declare expenses which are sent to the regional Family Allowances Fund (CAF) where the amount ещ be paid to a family is calculated. Subject to the parents' income, the state reimburses to a family part of child care expenses; prior to 2004, parents had to pay EUR 1,800 per child in private nurseries, while now, with the government's assistance, this amount equals only EUR 350.

The Family Allowances Fund encourages construction of new nurseries. The target for 2009–2012 was to create capacity for 30,000 children in partnership with local authorities or enterprises. An investment fund is established to achieve this target, and EUR 7,400–14,000 (about RUB 300,000–560,000) is allocated from this fund, while the full amount to create capacities is about EUR 20,000 per child. This means the Family Benefit Fund co-finances more than half of the cost. If municipal authorities, firms or organizations wish to establish nurseries, they apply to PMI for a permission and then to the Family Allowances Funds for co-financing.

Financing for nurseries

Since 2004, private firms setting up nurseries may obtain public co-financing. However, they are obliged to have the same child care tariff as municipal nurseries have, as this is an obligation to the state. 25% of the service fee per child is covered by parents, 25% by the Family Allowances Fund and 50% by the firm. As a result, income tax is decreased by 33%. As a result, a firm pays EUR 199 per month per child. Profitability of private nurseries is in the range of 10–15%. Advantages of private nurseries for employers include retaining highly qualified employees with young children.

In addition to investments, the Family Allowances Fund participates in financing current operations of preschool education institutions. The hourly service tariff is EUR 8 per child. Payments to parents, as reimbursement of their payments for nursery, are subject to the number of children and family budget. With the current cost distribution system, families only have to pay 20% of EUR 8. The Family Allowances Fund pays 45% of EUR 8. The balance is financed by local self-governing organizations and, more often, directly by firms, which is an example of social solidarity.

Services for children from three years to school age:

Starting from three years, all children in France are entitled to go to *ecole maternelle*, with almost 90% of children attending this institution. These "schools" are fully free of charge for parents, except for food (however, food costs are fully subsidized for low-income families). There are also child day-care centers with different working hours and fees charged[94].

However, it would be extremely expensive to exactly reproduce a similar system in Russia, since it requires building and running a lot of new capacity in child day-care centers with almost 100% public financing. Moreover, 100% public infrastructure of preschool education and care for children above three years may hardly be flexible enough to adjust to the needs of parents and children. It is necessary to involve the private sector in providing child care services.

Norway has a successful track record of resolving the problem of access to child day-care centers by public financing of private and public child day care centers. About 50% of child day-care centers are private. The service fee of taking care of a child in a child day-care center, whether public or private, is about 50% covered by the state, 30% by municipal authorities and no more than by 20% by parents. The number of public and private child day-care centers in Norway is almost equal. However, the ratio of children in them is about 60:40, since public child

[94] OECD. *Starting Strong II: Early Childhood Education and Care*. Paris: OECD, 2006. P. 326–328.

day-care centers generally have a bigger capacity than private[95] ones. Active involvement of the private sector in provision of child care services has helped Norway to cover more than 50% of children below three years old and nearly 95% of children more than three years old.

> "A special focus should be on preschool institutions, including support to private institutions of this kind. The Government has already removed many barriers hindering their development. My request is to fully complete this cleanup as early as in the first half of the next year and regional authorities are requested to actively use new opportunities. We need to let people normally work, open everywhere home and small child day care centers, school groups with extended hours, and therefore, provide parents with an opportunity to select a preschool institution without putting them on waiting lists or getting on their nerves."
>
> V.V. Putin, State-of-Nation Address, 12 December 2012

Possible Solutions in Regard to Child Care

In order to resolve the problem with waiting lists to child day-care centers and develop various, including private, forms of preschool education, the Ministry of Science and Education of the Russian Federation formulated proposals to improve sanitary and epidemiologic requirements to establish, operate and organize various forms of preschool education. Based on analysis of the successful experiences of other developed countries it was proposed to formulate the sanitary and epidemiologic requirements and provide for invariant (which primarily ensures children's safety) and variable components. In addition, a number of specific proposals to modify norms in terms of the number of floors and ceiling height in buildings were made to make it easier to convert spaces to create capacity. Standards were set to develop playgrounds and sunshades, arrange catering services, ensure hot water supply, hand-washing and toilets etc. Special attention in the list of proposals has been paid to making amendments to those norms which currently hinder wider expansion of family preschool groups (home child day care centers).

An extremely important step to increase coverage by preschool education is the decision by Prime Minister Dmitry Medvedev adopted in spring 2013 to allocate to Russian constituent entities a total of RUB 50 billion in subsidies to develop the system of children's preschool education institutions.

In this context, it is advisable to point to the experience of some Russian regions which have developed various models to organize preschool education and care after young children. The practice of developing home child day care centers (i.e. certified home tutors) which is very popular among parents with young children and goes in line with France's experience is especially interesting. This practice is being successfully pursued in the Belgorod and Lipetsk Regions.

It is important to set up the system of training and certification of home tutors in order to develop home child day care centers. The system must be run on the co-financing basis, i.e. the home tutor's fees are to be partly paid by parents and partly subsidized to them (or allocated directly to the tutor) by the government. As underscored by regions pursuing this model, we may single out the following cost breakdown: the government spends RUB 50,000 to train one tutor. A tutor is paid 50% by parents (RUB 5,000 per month) and 50% by the government (also RUB 5,000 per month) per child.[96]

Introduction of this model nationwide will make it possible to significantly increase the share of children covered by child care services and reduce the waiting list to attend child day care centers. The most significant improvement will be in the segment of care for children below three years (the waiting list to attend child day care centers is mostly represented by young

[95] Appendix 1. An Overview of ECEC Systems in the Participating Countries. Norway. URL: http://www.oecd.org/edu/preschoolandschool/1942347.pdf. Cited on 09.08.2013.

[96] However, this would not be affordable for families in poverty. They would require complete subsidies.

children aged in the range of 1.5–3 years). In addition, resolution of the waiting list problem by establishing home child day care centers is **almost 10 times** less expensive for the budget than construction of new child day care centers. Liquidation of the waiting list by construction of child day care centers will cost the Russian budget about RUB 1 trillion. In addition, construction is a long-term project. Liquidation of the waiting list by developing home child day care centers will cost less than RUB 100 billion. In addition, this scenario will bring an additional economic effect and **ensure full payback for the budget**.

Full-fledged implementation of the program will bring about one million of employable mothers (20–40 years), who currently need to stay at home with children, to work and they will start contributing to GDP (more than RUB 500 billion) and pay taxes to the budget (about RUB 150 billion). Increased employment among mothers will also help increase family income and reduce the share of low-income households. Moreover, about 300,000 new jobs (certified home tutors) will be created and new employees will contribute to GDP and pay taxes to the budget.

Pursuing this model throughout Russia may ensure:

- For economically stronger regions (90 million inhabitants): RUB 5,000/ RUB 5,000 from parents/the state budget.
- For demographically depressed regions (40 million inhabitants): RUB 2,000/ RUB 6,000 from parents/the state budget.
- Tutor training creates 300,000 modern jobs.
- One tutor releases three young women for work.
- A million of employed women increase GDP by RUB 500 billion per year.
- More than RUB 150 billion out of these RUB 500 billion are tax payments to the budget.

Economically stronger regions

- RUB 50 billion per year to implement the program.
- RUB 100 billion per year of budget revenue.
- RUB 400 billion in GDP.
- 700,000 women involved.
- 90,000 children per year of increased fertility.

Depressed regions

- RUB 25 billion per year to implement the program.
- RUB 20 billion per year of budget revenue.
- RUB 100 billion in GDP.
- 300,000 women involved.
- 40,000 children per year of increased fertility.

3.1.7. FLEXIBLE WORKING HOURS FOR WORKING MOTHERS

Flexible working hours for working mothers is another effective measure to support the fertility rate[97]. International experience reveals the following mechanisms to encourage flexible employment for parents:

- a statutory right for a parent to transfer to a part-time job after the birth of a child due to the need to care for young children;
- a statutory right for parents who transferred to a part-time job to resume their full-time job when the need to care for their young children expires;
- statutory protection of equal rights of full-time and part-time employees;
- right of an employee with young children to set up the time to start and finish work on a constant or temporary basis;
- statutory protection to remote employees, removing statutory barriers to remote employment;
- encourage part-time employment;
- encourage employers to permit employees with children to independently regulate the time to start and finish work on a constant or temporary basis;
- encourage employers to let employees take time-off in lieu and leave their work stations during certain hours (either unpaid or to be compensated afterwards), if necessary.
-

As underscored by practice, it is primarily mothers of young children who use such opportunities in societies where flexible employment opportunities are offered. These measures help to bring to the labor market women who would not be able to combine family duties and work under less favorable circumstances.

Current Russian employment law provides for such measures as a mother's right to request a part-time job due to the need to take care of a child. However, such measures (already pursued in other countries) as a mother's right to return to her full-time job after a child care period expires, has not been implemented in full. According to a recent survey, Russian employers quite often use part-time jobs, but seldom use such measures as flexible working hours. Flexible working hours and an opportunity to devote certain periods of time during working hours to family duties may be an important mechanism which makes it possible to combine family duties with a job[98].

[97] OECD. *Doing better for families.* Paris: OECD, 2011. P. 149–158. URL: http://www.oecd-ilibrary.org/social-issues-migration-health/doing-better-for-families_9789264098732-en.

[98] OECD. *Babies and Bosses: Reconciling Work and Family Life: A Synthesis of Findings for OECD countries*. Paris: OECD, 2007. URL: www.oecd.org/els/social/family.

3.1.8. HOUSING MEASURES

> "Therefore, now, at a new stage, we need to resolve the housing issue for wider categories of our citizens: young families ... take measures to increase volumes of commissioned affordable budget housing and significantly expand housing rental opportunities."
>
> V.V. Putin, State-of-Nation Address, 12 December 2012

Low incomes for families limit their opportunities to acquire housing and make improvements: 40% of families with children are located in premises not equipped with hot water, 33% are in premises without centralized heating, and 15% are in premises without water supply[99]. There are special federal programs addressing the housing problems of large families. The average term on the waiting list for participants of the program Housing for Young Families within the federal target program "Housing" for 2011–2015 with the current level of financing is about 8–10 years. Meanwhile, according to surveys, low housing accessibility is a strong factor blocking fertility growth; making housing more accessible may therefore produce a significant positive impact on fertility growth[100]. We can point to data from surveys showing that families living in their own houses has a notable positive impact on fertility[101].

Meanwhile, it should be noted that there are still no internationally demonstrated housing measures which have proven effectiveness in regard to raising fertility[102] (though the Russian "maternal capital" may well be regarded as such a measure, as, on the one hand, it has increased the fertility in Russia in a very significant way [see above], and, on the other, it has been predominantly used just to improve families' accommodation). Thus, of course, this does not mean that such measures are unnecessary, especially since Russia suffers from greater housing deficits than most other industrialized countries. Such measures to support fertility as maternity capital were not proven internationally either, but it proved its high effectiveness. Surveys performed in Russia suggest that housing measures may have a strong positive impact on fertility gains. However, lack of adequate proven evidence of their application shows that it is advisable to begin pursuing most of these measures as pilot projects, starting from the most demographically depressed regions. In case certain measures appear to be effective in individual regions, they may start making their way to other regions as well.

Possible Solutions in Regard to Housing

- provide families after second childbirth with the right to purchase housing at a subsidized cost and a subsidized reduced interest rate;
- provide families after third childbirth with the right to purchase housing at a subsidized cost through interest free mortgage;
- increase financing of subprogram "Housing to Young Families" and expand its coverage to large families, without the 16-year age limitation for a younger child;
- develop sub-program "Housing for Large Families";
- introduction of regional subsidies to large families for commercial hire and housing rent and reduction of subsidy rate for utilities bills payments;
- development of low-rise affordable housing construction, especially units for larger families with priority purchasing for families with at least three children.

[99] *Analysis of children's status in the Russian Federation: on the way to society with equal opportunities. Joint Report of Independent Institute of Social Economics and the United Nations Children's Fund (UNICEF)*. Moscow: UNICEF, 2011 (in Russian).

[100] See: Mulder C. Population and Housing: A Two-sided Relationship. *Demographic Research* 15 (2006): 407–409; Kulu H., Vikat A. Fertility Differences by Housing Type: The Effect of Housing Conditions or of Selective Moves? *Demographic Research* 17 (2007): 775–802; OECD. *Doing better for families*. Paris: OECD, 2011. P. 102, 104.

[101] See: Kulu H., Vikat A. Fertility Differences by Housing Type: The Effect of Housing Conditions or of Selective Moves? *Demographic Research* 17 (2007): 775–802.

[102] OECD. *Doing better for families*. Paris: OECD, 2011. P. 102, 104.

3.1.9. MANAGEMENT SOLUTIONS FOR EFFECTIVE IMPLEMENTATION OF DEMOGRAPHIC POLICY

Proper administration of demographic policy and full implementation of the measures and policies described above require a decent management infrastructure. An important success factor for family policy is the presence of strong institutions that ensure effective management, coordination between levels of authority and partnership between sectors. In France, these bodies are represented by the Supreme Family and Children Council, the National Family Allowances Fund and the National Union of Family Associations. In Russia, family policy institutions have yet to be properly developed[103].

Currently, there are no bodies at the national level and in most constituent entities of the Russian Federation that are in charge of family policy, and coordination between various departments and levels of authority has yet to be established. There is no long-term federal target program in the family policy area. To ensure optimum implementation of effective demographic policy, the following management decisions are proposed[104]:

1. **Ensure management coordination:** establish bodies responsible for family policy implementation at all management levels, create the Family Policy Council overseen by the President of the Russian Federation with participation of religious leaders, and family policy councils under the regional governors and heads of municipal administration.
2. Creation of the **Family and Children Support Fund** with regional branches like the National Family Allowances Fund in France (CNAF), the senior managing partner in the family policy area. Among other resources, its budget must be increased by excises on alcohol, tax and gambling business. The Fund may ensure more effective administration of maternity capital resources currently managed by the Russian Pension Fund, development of the system to take care of young children below three years, work with difficult families, etc.
3. *Creating **support centers for families with children** in each urban district and municipal area,* jointly with non-profit organizations of traditional religious confessions for consulting support to families, including social work with families on a social contract basis.
4. Develop the **"Family and Children" public program** which provides for step-by-step implementation of a set of measures to support large families, starting from demographically depressed regions.
5. Training and retraining of government employees in charge of demographic and family policy.
6. Arrange for the system of **independent social expert examination** in the Open Government system format to assess control impact of relevant decisions on the standing of families and children.
7. Expanding statistical surveys for families with children; make family **studies** more active.
8. Develop **social well-being standards** for families with children. According to expert estimates, the self-sufficiency level (SSL) for families with children is 150% higher than the minimum subsistence level. The share of families with income equal to or greater than SSL should be considered a target and summary indicator of successful economic

[103] Rybalchenko S. Family policy institutions: international experience and opportunities for Russia. *Strategy of Russia's demographic development: fertility and family policy. Materials of All-Russian scientific and practical conference, 19–20 June 2013*. Moscow: Econ-Inform, 2013 (in Russian).

[104] Rybalchenko S., Yuriev E. Public strategy of family policy for the period of overcoming the demographic crisis. *Strategy of Russia's demographic development: fertility and family policy. Materials of All-Russian scientific and practical conference, 19–20 June 2013*. Moscow: Econ-Inform, 2013 (in Russian).

policy in the Russian Federation and of effective activities of regional and local authorities aimed to develop human potential.

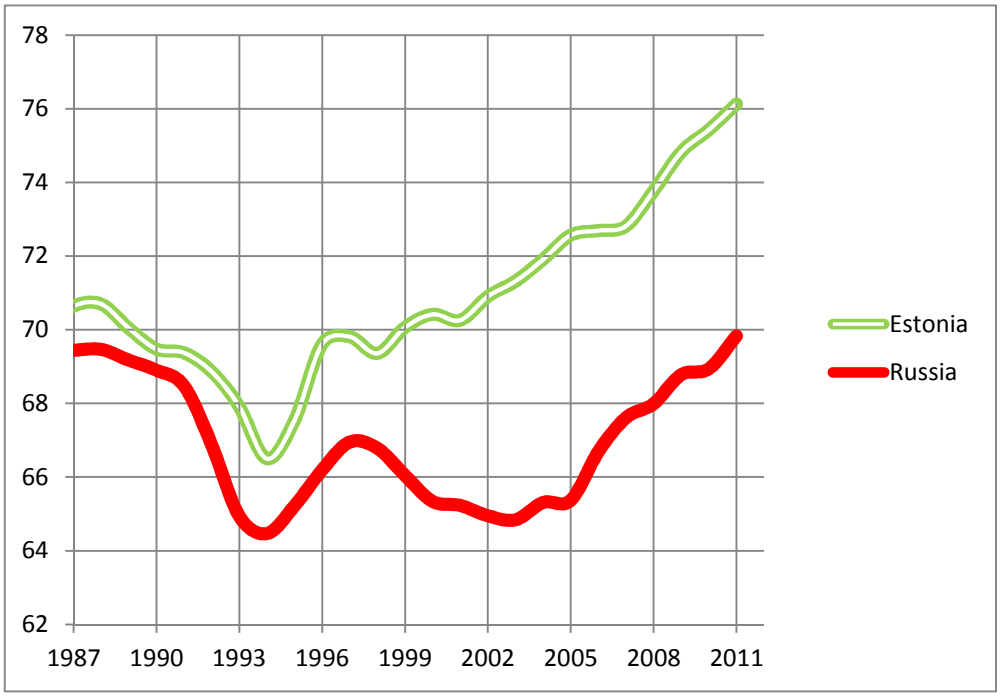
First and foremost, these measures must be implemented in demographically depressed regions. According to expert estimates, such regions are home to approximately one third of Russia's population and large families account for only about 1% of all families with children. This means that even the strongest measures will not be expensive and if they become such, we would be able to state that a crisis in these regions has been overcome.

3.2. PUBLIC POLICY REGARDING MORTALITY REDUCTION

3.2.1. INTERNATIONAL EXPERIENCE REGARDING AN INCREASE IN LIFE EXPECTANCY

A considerable increase in life expectancy of Russian people requires analysis of international experience in this area. Precedents of rapid growth in life expectancy have recently been registered in such countries close to Russia in terms of culture as Estonia and Poland, further post-Socialist countries in Central and East Europe during the post-Soviet period.

Fig. 3.8. Life expectancy change in Estonia and Russia, years[105]



Gender and age analysis of mortality from various causes in Russia and in these countries shows that mortality may be significantly reduced through limitation of access to hard alcohol drinks, including illegal alcohol and tobacco[106]. It is noteworthy that all new EU member countries have implemented a key measure to reduce tobacco consumption – a hike in cigarette excises to the EU minimum level of EUR1.28 per package which has reduced tobacco consumption[107].

Annual avoidable mortality from tobacco consumption is at least 150,000 people per year (given mortality estimate includes difference between per capita cigarette consumption in Russia and in countries with effective anti-tobacco policy). Avoidable mortality from abuse of alcohol, including hard alcohol most likely exceeds 200,000 people per year.

In recent years, Russia has approved amendments to the legislation aimed to implement most key recommendations of the World Health Organization to reduce harmful alcohol consumption, including limitations to alcohol sales in terms of time, geographical access to alcohol beverages (by prohibiting alcohol sales in kiosks), higher prices and excise on alcohol products. At present, a focus should be on work aimed to execute these laws and prohibit alcohol sales to minors. In particular, a big problem is illegal production and tax avoidance of hard

[105] *Life expectancy at birth, Rosstat routine table* http://www.gks.ru/free_doc/ new_site/population/ demo/demo26.xls; World Bank. *World Development Indicators Online.* Washington, DC: World Bank, 2013. http://data.worldbank.org/indicator.

[106] Jasilionis D. *et al.* Recent Life Expectancy Divergence in Baltic Countries. *European Journal of Population* 27 (2011): 403–431.

[107] *Krasovky K.* Tobacco Taxation Policy in Three Baltic Countries after the EU Accession. *Tobacco Control and Public Health in Eastern Europe* 2/2 (2012): 81–98.

alcohol producers. To resolve this problem, it is necessary to lower the threshold at which sales of illegal and non-excise alcohol are subject to criminal prosecution and to improve law enforcement mechanisms. However, it is critically important to continue to introduce those effective measures that have not yet been introduced.

As regards the anti-tobacco issue, only two measures have been approved and will come into force in 2013–2014, out of four key measures capable to effectively reduce tobacco consumption. These are prohibition of smoking in public places and graphic warning on cigarette packages. However, advertising has yet to be completely banned and excises have yet to be hiked to the level approved in Eastern Europe countries. Excise hikes is the most effective measure to counteract smoking (especially among children and teenagers). Russia's current tobacco excises are 5 times lower than the minimum EU rate (which is also effective in countries with lower per capita income than in Russia, such as Bulgaria and Romania). This is the fact that explains record high tobacco consumption levels among adults and teenagers in Russia.

3.2.2. HEALTHCARE SYSTEM PROGRESS

Experience in the Central and Eastern European countries (Poland, Estonia, Czech Republic and others) shows that another strong resource for reducing mortality in Russia, especially in older age categories, is modernization of the healthcare system.

In the past, the Soviet healthcare made considerable contributions to extending life expectancy in the USSR. However, in the 1970s it became evident that this healthcare system was lagging behind those in the West, as reflected in the relatively higher sickness rates and lower life expectancy of Soviet citizens. Especially notable differences were evident in the gains in life expectancy in the West from measures to control cardiovascular diseases. These included not only changes in lifestyle, but also massive increases in the prescription of medications to control cholesterol, blood pressure, and blood sugar levels (the so- called "cardiovascular revolution").

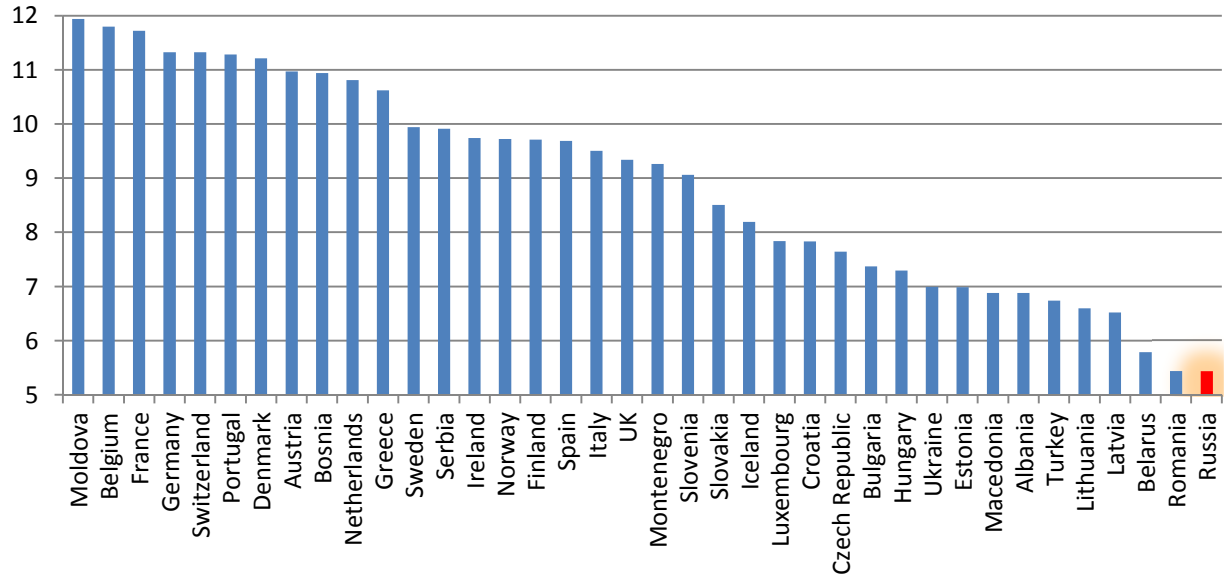
The weakness of the Soviet medical and health care system, as compared to its Western counterpart, was due not only to greater Western financial support for continuous improvements in the healthcare system, but also to the rapid development of clinical epidemiology in the West, which improved the methodology for biomedical research and processing medical information.

Since the 1990s, a drive to implement more rigorous evidential approaches in medical care began to contribute to improvements in clinical practice in the West. These efforts focused on implementing medical interventions whose effectiveness and safety had been demonstrated in high quality biomedical and clinical research[108]. This made it possible to identify and eliminate a number of ineffective interventions, and moreover to identify and implement ‘best practices as the standard of treatment through the system of medical guidelines. The Russian healthcare system was also involved into this process, but the language barrier and financial difficulties hindered Russia from achieving the same level of progress.

At this point, further development of the Russian healthcare system to compare with Western systems requires an increase in financial resources. According to World Bank data, Russia's spending on healthcare as a percent of GDP is still quite low by world standards (131st out of 190 countries in the World Bank's ranking). In addition, Russia ranks last in Europe in terms of this indicator (along with Romania) (see Figure 3.9):

[108] For instance, a key principle of evidential medicine is that pharmaceuticals must be checked in comparative research designed so that they have strong evidential effect. The most reliable results may be obtained by summarizing data from several surveys with close design in the so called systematic reports.

Fig. 3.9. Share of spending on healthcare as percent of GDP in European countries in 2009



Source: World Bank. World Development Indicators Online. Washington, DC: World Bank, 2013. URL: http://data.worldbank.org/indicator/ SH.XPD.TOTL.ZS[109].

We can see that the share of medical expenses relative to GDP in most of the more developed European countries (with notably higher GDP per capita) is roughly twice that of Russia. It is therefore obvious that this share should by no means be lower and preferably[110,111] grow higher in Russia to narrow the considerable gap in health with Western countries. In fact, even in many OECD countries with lower income, the share of GDP spent on healthcare considerably outstrips that spent in Russia.

The shortage of financing for the Russian healthcare system is aggravated by insufficiently an ineffective distribution of resources. Modern healthcare model provides savings by far greater use of outpatient treatment modes as opposed to hospital treatment, and a bigger role for nursing and general practitioners in treating patients. The savings can be allocated to supplying pharmaceuticals to patients to control chronic conditions, and to paying more attractive salaries to medical staff—which decreases shadow payments and corruption in the medical sector.

Some Central and Western European countries shifted to the most effective Western healthcare practices more rapidly during the post-Soviet period than Russia did, due to integration processes as part of their admission to the European Union. In particular, the Baltic States had largely transitioned to healthcare system with a focus on general practitioners by the late 1990s[112].

[109] Moldova is a country with the lowest income in Europe. Therefore, a high share of healthcare expenses in GDP only in part offsets extremely low total per capita GDP. Meanwhile, in 2008 (the last year for which we have comparative data) life expectancy even in Moldova was higher than in Russia (and higher share of healthcare expenses in Moldova clearly contributed to this result).

[110] For instance, the gap between men's life expectancy in Russia and Switzerland in 2008 was 18 years and GDP per capita (in 2009) was more than seven times higher in Switzerland than in Russia. Obviously, should Russia allocate to healthcare the same share of GDP as Switzerland does, the gap between our countries would still be huge. But our share is less than 50% of the same value in Switzerland. As a result, the gap in healthcare spending (per capita) between Russia and Switzerland becomes really great – more than 15 times!

[111] The calculations were based on the following data: World Bank. *World Development Indicators Online.* Washington, DC: World Bank, 2014. URL: http://data.worldbank.org/indicator.

[112] Jasilionis D. *et al.* Recent Life Expectancy Divergence in Baltic Countries. *European Journal of Population* 27 (2011): 403–431.

Meanwhile, since the structural changes in the healthcare systems of post-socialist countries of the European Union significantly differed[113], and a rise in life expectancy was observed in all of them, it is most likely that the key component of improvement was not a particular organizational structure, but rather their harmonisation of medical practices with worldwide standards, in particular, through adoption of best practice medical guidelines.

In Russia, given its exceptionally high mortality due to cardiovascular diseases, increased prescription of medicines to control cholesterol and arterial tension should make a significant contribution to decreasing mortality rates. This approach has become the most important component of the so called "cardiovascular revolution" in developed countries. It is economically viable for the state to finance accessibility of such medicines from the federal budget, since this directly affects the number of disability cases resulting from heart attacks, strokes, etc. providing savings in health care costs that would offset the cost of medications.

In sum, Russia's medical and healthcare system could be dramatically improved by acceleration of the process to introduce the most effective practices (protocols and procedures to treat diseases), including by harmonisation with those in Europe, the USA, Australia, Canada, etc., and systems to encourage medical staff to use these practices and motivate them to terminate ineffective methods used for diagnostics, prevention and treatment of diseases.

More accessible emergency medicine, especially in cases of the so called "cardiovascular catastrophes" (heart attacks and strokes), will also help reduce mortality from cardiovascular diseases. This task will requires establishing inter-disciplinary medical brigades based on existing therapeutic institutions, mandatory use of computed or magnetic tomography scanners in healthcare institutions providing medical aid at early stages of cardiovascular catastrophes (less than 12 hours), equipment of such therapeutic institutions with fibrinolytic medicines with proven clinical effectiveness. The number of such centres in most regions is insufficient.

However, not all required changes are high-tech and high cost. Western best practice of administering aspirin immediately at the onset of heart attack symptoms is a low-cost way to reduce mortality, if doctors could instruct emergency staff and their patients at risk of cardiovascular events to be prepared and act promptly. Similarly, daily aspirin therapy is now recommended to prevent heart attacks and strokes in at-risk patients.

In Russia, with its vast spaces, it is important to maintain healthcare services (including emergency medicine) that are accessible in rural and other remote areas. This will require retaining feldsher-obstetric stations, expanding training courses for paramedical personnel and extension of their authorities.

It is also necessary to increase the economic accessibility of medicines for patients suffering from inveterate and widespread diseases, including oncologic diseases. Specifically, this will reduce mortality among oncologic patients. Other effective and financially viable means to reduce mortality from oncologic diseases (apart from addressing tobacco smoking) include screening for rectal and colon cancer (colonoscopies) and universal vaccination of young girls below 16 years against human papillomavirus (to reduce cervix uteri cancer). If the entire set of these approaches could be implemented, mortality rates should fall rapidly in the Russian Federation, and could approach the levels in such countries as Estonia, the Czech Republic, Poland or Chile.

Despite the significant fall in mortality rates in 2005–2010, Russia still ranks 22nd highest worldwide in terms of mortality.[114] The main reason behind this situation is high mortality rates among employable men. Given current mortality rates, one third of 15 year-old men will die before they are 60 years old[115]. Each fifth death in Russia is related to alcohol (about 400,000

[113] E. Andreev, Kvasha E., Kharkova T. We could not expect a rapid reduction in mortality in Russia [Ozhidat' bystrogo snizheniya smertnosti v Rossii ne prikhoditsya]. *Voprosy statistiki* 11 (2003): 13–27.

[114] World Bank. *World Development Indicators Online.* Washington, DC: World Bank, 2014. URL: http://data.worldbank.org/indicator.

[115] *Demographic Yearbook of Russia [Demograficheskiy yezhegodnik Rossii]. 2010. Statistical digest.* Moscow: Rosstat, 2010. P. 182.

deaths annually)[116]. Another 330,000–400,000 deaths annually are caused by tobacco diseases, and at least 100,000 deaths by consequences of drug use[117]. **Measures to counteract alcoholism, tobacco smoking and drug addiction are a top priority** to reduce accelerated mortality of Russian population.

3.2.3. MEASURES TO REDUCE MORTALITY FROM EXTERNAL CAUSES

Methods to reduce mortality from external reasons require special consideration. The key method is to reduce national consumption of alcohol, primarily hard alcohol. However, many other preventable non-disease causes of mortality can also be prevented by better policies.

According to the World Health Organisation, effective measures to prevent suicides represent timely identification and treatment of depressive and other mental disorders, arranging online psychological consulting for people, including teenagers and young adults in difficult situations, support to people who attempted to commit suicides, and limiting access to means of suicide, such as firearms, chemicals, and medicines[118].

Avoidable mortality from road accidents in Russia amounts to at least 15,000 deaths per year. Proven effective approaches include speed limitations and automated speed control, control over driving with alcohol intoxication, using helmets, seat belts, and baby seats, bringing road infrastructure into compliance with international safety standards, setting modern safety requirements for cars manufactured and imported in the Russian Federation, and ensuring timely and high quality emergency aid victims of road accidents[119].

Mortality from fires may be significantly reduced (by around 40%) not only by implementing anti-alcohol measures, but also by introducing the requirement to only manufacture in Russia cigarettes with improved combustion characteristics (fire safe cigarettes) with fire retardant paper. As a result, a cigarette fades out if a smoker does not inhale within several seconds. EU countries prohibited the manufacture and sale of all cigarettes, except for flameproof cigarettes, on 17 November 2011. The price of this novelty is insignificant, about 0.01–0.02 Euro cents per a pack of cigarettes. Such a measure is also in effect in a number of states in the USA, Canada, Australia, South Africa.

3.2.4. ANTI-ALCOHOL POLICY

Introduction of **a vigorous anti-alcohol policy with a focus on the experience of Scandinavian countries** will help to **reduce mortality by more than 400,000 people annually** and save up to 2% per GDP per year[120]. Key measures would include:

- ✓ *Step-by-step increase in alcohol prices* by hiking excise taxes and minimum prices at a pace exceeding inflation over the next 3–5 years, by at least 150% to the level of the Baltic states, will make it possible to prevent deaths and disability in Russia for 300,000

[116] See: Demin A., Korotayev A., Khaltourina D. *Alcohol abuse in the Russian Federation: socioeconomic consequences and countermeasures* [Zloupotrebleniye alkogolem v Rossiyskoy Federatsii: sotsial'no-ekonomicheskiye posledstviya i mery protivodeystviya]. Moscow: Public Chamber of the Russian Federation, 2009.

[117] See: Khaltourina D., Korotayev A. *Russian cross: factors, mechanisms and ways to overcome the demographic crisis in Russia* [Russkiy krest: faktory, mekhanizmy i puti preodoleniya demograficheskogo krizisa v Rossii]. Moscow: URSS, 2006.

[118] SUPRE Prevention of Suicidal Behaviours: a Task for All. World Health Organization. URL: http://www.who.int/mental_health/prevention/suicide/information/en/index.html#; Ivanova A. *et al. Mortality among Russian teenagers from suicide* [Smertnost' sredi rossiyskikh podrostkov ot samoubiystv]. Moscow: Children's Fund (UNICEF), 2011.

[119] See: UN Decade of Action for Road Safety 2011-2020. URL: http://siteresources.worldbank.org/EXTTOPGLOROASAF/Resources/2582212-1265307800361/decade_of_action_2011.pdf. Цит. 1.04.13.

[120] See: Demin A., Korotayev A., Khaltourina D. *Alcohol abuse in the Russian Federation: socioeconomic consequences and countermeasures* [Zloupotrebleniye alkogolem v Rossiyskoy Federatsii: sotsial'no-ekonomicheskiye posledstviya i mery protivodeystviya]. Moscow: Public Chamber of the Russian Federation, 2009.

people annually (according to the approved three-year plan). This measure alone will save 1.8 million people in Russia by 2020.

- ✓ *Limitation of alcohol sales during evening and night hours at the regional level* in addition to the current federal prohibition will lead to an immediate fall in mortality rates (65 Russian constituent entities have already introduced this measure). Furthermore, it is necessary to expand the timing of federal limitations from 8 pm to 11 am and significantly limit alcohol sales on Sundays and Saturdays after 4 pm.
- ✓ *Limitation of geographical accessibility of alcohol* to the level approved in the Scandinavian countries – no more than 1 point of sale of alcohol stronger than 4-5% per 5,000 people (current accessibility to alcohol in Russia is unprecedented – about 1 point of sale per 360 people, including non-permanent points of sale).
- ✓ *Counteraction of production and sales of alcohol on which no excise taxes are paid:* tightening control and liability for illegal alcohol production and sales, lowering the threshold of criminal liability for such offences, and expanding the scope of excise taxes on liqueurs and medical ethyl alcohol.
- ✓ *Encouraging a shift to consumption of alcohol other than spirits,* i.e. more beer and wine consumption in place of vodka and hard liquor.

3.2.5. COMPREHENSIVE ANTI-TOBACCO POLICY

A comprehensive **anti-tobacco policy**, in line with the WHO Framework Convention on Tobacco Control and the Guiding Principles to implement its provisions, must include the following measures.

- ✓ *Limitation of price accessibility*. Tobacco products in Russia have unprecedented low prices due to extremely low excise taxes. It is necessary to considerably increase excise taxes within 3–5 years to the minimum EU level (EUR 1.28 per package of cigarettes). This will prevent **up to 100,000 deaths per year** and bring to the budget up to RUB **700 billion** annually.
- ✓ *Total prohibition of tobacco advertising*. Introduction of complete prohibition of tobacco advertising, marketing promotion or any sponsor contributions from tobacco companies approved in 2013 will help promptly reduce cigarette consumption by 14% among the Russian population in general and even more among women and teenagers[121].
- ✓ *Total prohibition of smoking in indoor public places* will make it possible to minimize risks and losses related to active and passive smoking. Specifically, heart attacks fall 17% during the first year after introduction of the complete prohibition and the effect is even stronger in subsequent years – by 30% from the initial level[122].
- ✓ *Placement on packages of cigarettes of realistic graphic warnings about tobacco being harmful for health*. This measure does not involve any budget spending, but helps make smoking significantly less popular (reduction up to 17%[123]), especially among teenagers. The issue should be resolved as part of the Technical Guidance for tobacco products of the Customs Union or EurAsEC.

3.2.6. KEY MEASURES TO REDUCE MORTALITY AMONG THE POPULATION OF THE RUSSIAN FEDERATION

To summarize, key measures to reduce mortality among Russian people are as follows:

[121] See: Joossens L. *The Effectiveness of Banning Advertising for Tobacco Products*. 2nd ed. Brussels: International Union against Cancer, 2000.

[122] Barone-Adese F., Vizzini L., Merletti F., Richiardi L. *Short-term effects of Italian smoking regulation on rates of hospital admission for acute myocardial infarctio*n. *European Heart Journal* 27/20 (2006): 2468–2472.

[123] Jha P., Chaloupka F. J. *Curbing the Epidemic: Governments and the Economics of Tobacco Control*. Washington, DC: World Bank, 2009.

- step-by-step increases of excise taxes on hard alcohol beverages at least by 150% to the level of the Baltic states, with enforcement of limitations of time, geographical and category accessibility and tightened control over alcohol production and sales.
- introduce prohibition of alcohol sales with ethanol content over 15% on Sundays and Saturdays after 16:00. This measure proved to be very effective in the Scandinavian countries and it is necessary to implement it in Russia as soon as possible[124].
- prohibit sales of alcohol with ethanol content over 15% in store departments not isolated from other departments and not having separate entrance from outdoor – the point is that if "a person enters a store to purchase bread and sees alcohol on the shelves, this often prompts him to purchase alcohol as well"[125];
- hiking excise taxes on cigarettes to the minimum EU level (EUR 1.28-1.26 per package of cigarettes), total prohibition of tobacco and smoking advertising in closed public places, placement on packages of cigarettes of realistic graphic warnings about smoking being harmful for health.
- harmonisation of medical practices (clinical practice guidelines, standards and protocols to treat diseases) primarily in the area of prevention, treatment, and diagnostics of cardiovascular and oncologic diseases with practices in EU countries, the USA and Canada.
- ensure geographical and economic accessibility of healthcare, including by retaining feldsher-obstetric stations, expanding training courses for paramedical personnel and extension of the scope of services offered by paramedical personnel (which in turn requires revision of principles to train paramedical personnel (sick nurses, feldshers) with a focus on strengthening theoretical and general clinical training (therapy, general surgery).
- implement comprehensive systems to provide medical aid in case of vascular catastrophes (strokes and heart attacks), including formation of inter-disciplinary medical brigades (with working hours round the clock) based on existing therapeutic institutions, mandatory availability and round-the-clock access to computed or magnetic tomography scanners in healthcare institutions providing medical assistance at early stages of vascular catastrophes (up to 12 hours), and ensure that these therapeutic institutions have fibrinolytic medicines with proven clinical effectiveness. The main requirement for the system is to ensure that computer and magnetic tomographic scanning is performed not later than within four hours after the emergency medical brigade was called for, ensure that fibrinolytic medicines are applied to patients with an ischemic stroke not later than within six hours after indications of a stroke.
- improve effectiveness of the system for prevention and treatment of cardiovascular diseases (including "cardiovascular catastrophes" through application of methods with proven effectiveness and safety (including early diagnostics and pharmacological control of cholesterol, blood pressure, and blood sugar levels), with reimbursement to citizens of expenses to purchase such medicines.
- ensure co-payment or complete reimbursement to outpatients of expenses to purchase medicines. Develop an subsidized of free pharmaceutical supply system for patients suffering from chronic severe and socially important illnesses, including oncologic diseases.
- reduce mortality from road accidents by introducing speed limits, stronger efforts to halt driving under intoxication, control over use of seat belts (including on rear seats) and

[124] Demin A., Korotayev A., Khaltourina D. *Alcohol abuse in the Russian Federation: socioeconomic consequences and countermeasures* [Zloupotrebleniye alkogolem v Rossiyskoy Federatsii: sotsial'no-ekonomicheskiye posledstviya i mery protivodeystviya]. Moscow: Public Chamber of the Russian Federation, 2009.

[125] Demin A., Korotayev A., Khaltourina D. *Alcohol abuse in the Russian Federation: socioeconomic consequences and countermeasures* [Zloupotrebleniye alkogolem v Rossiyskoy Federatsii: sotsial'no-ekonomicheskiye posledstviya i mery protivodeystviya]. Moscow: Public Chamber of the Russian Federation, 2009. P. 47.

baby seats, bringing road infrastructure and domestic cars in compliance with international safety standards, and ensuring timely assistance to victims of road accidents.

- include vaccination from human papillomavirus to the National Schedule of Preventive Shots in Russia to considerably reduce sickness and mortality rate from cervix uteri cancer.
- extensive and accessible communications to the general population and care providers about early indications of potentially lethal crisis situations (stroke, heart attack, hypertonic crisis etc.) and basic rules for providing first aid at the onset of such crises.

"Demographic maneuver"

Further substantial rise of the excise duties on tobacco and alcohol

These funds can be used to support family policy

save up to **300,000 human lives** per year.

bring up to **800 billion rubles** to the state budget,

to secure **500 000 additional births** per year

Russia is able to increase substantially fertility
and to reduce substantially mortality without raising budget expenses

3.3. MEASURES TO OPTIMISE MIGRATION GROWTH

Given the possible dubious social and cultural consequences of large-scale "replacement" immigration, as well as its inadequacy to compensate for current excessive mortality and low fertility, immigration should be considered exclusively as an additional component of demographic policy of Russia

The main features of Russia's migration policy should be to try to reduce or eliminate "push-out" factors that lead to emigration, encourage migration flexibility among Russian citizens and refocus domestic migration flows towards eastern regions of Russia. Policy should also include measures for the selective attraction of necessary categories of immigrants based on cultural and qualification parameters, and maintaining migration gains at the target rate determined by the Concept of Demographic Policy of the Russian Federation for the period up to 2025 – 300,000 people per year, since according to most calculations, it is impossible to fully resolve the problem of the future reduction of Russia's population without maintaining migration gains at this level.

It is important to note that a considerable migration reserve is represented by emigration from Russia, which includes educated and qualified specialists, young and active people, and is accompanied by business and capital flight. It is possible to reduce this emigration flow only by a significant increase in salary in relatively low-paid government sectors (science, education, culture, art), minimising bureaucratic barriers to business development, liquidation of corruption pressures on people, and creating jobs and opportunities for self-realization in professions and on the labour market, as well as greater legal, security and property protections to improve the business and investment climate.

In addition, it is necessary to make interaction with Russian-speaking communities abroad more active. According to preliminary estimates, the number of representatives of these communities may be in the range of 25–30 million and they have significant social, economic and demographic potential. On the one hand, Russian-speaking communities may be "conductors" and "support points" of Russian business, education and culture abroad; while on the other hand, they may represent a certain demographic potential for return migration to Russia. Recognised dual citizenship, simplified procedures to retain Russian citizenship for emigrants and their descendants, and significant benefits provided to them when they enter Russian higher education institutions may strengthen links of Russia with compatriots and attract additional compatriots to Russia.

Domestic population migration represents a significant resource for social and economic development of some Russian regions. Domestic population mobility should be developed through supporting the market for low-cost housing for rent, development of a national information base with vacancies on the labour market, and establishing a system of preferences for professionals prepared to relocate and work in regions necessary for the country. These measures may assist in making the population of the Far East and some borderline and geopolitically important areas bigger and younger, relieve demographic pressure from economically depressed regions and settlements with high unemployment rates, and provide a workforce to those regions and settlements experiencing labour shortages.

It is advisable to improve the State program to encourage the return of compatriots to Russia, acting from 2007, by providing its participants with Russian citizenship before they arrive in Russia; financing from the federal budget of housing construction in regions for local inhabitants and compatriots on a parity basis; simplifying procedures to provide land plots for construction and agricultural production; and providing tax benefits for opening and doing business in geopolitically important regions. It is necessary to more actively use the integration potential of compatriots in areas where they are living as people with experience of living in other social and cultural conditions and knowing customs and traditions of other people. Compatriots may be involved in self-governance, social projects and cultural events in their residence area. It is extremely important not to limit participants of the State Program to Return

Compatriots to Russia in selecting the region to live in. This measure will be more effective than proposed relocation allowances and jobs in rural areas which do not even enjoy demand among local inhabitants. Attempts to allocate returning compatriots to regions, abandoned by local population, brought unsuccessful results as part of the previous program encouraging compatriots to return to Russia. Approximately the same problems have arisen in subprogram No. 3 "Providing Assistance to Voluntary Migration to the Russian Federation of Compatriots Living Abroad" approved in April 2013 as part of the State Program of the Russian Federation "Regional Policy and Federative Relations" (see *Appendix 4*). The experience of the 2007 program to encourage compatriots to return clearly shows that attempts to resolve at the same time the task of returning compatriots and demographic problems of "priority settlement territories" results in neither task being resolved. These tasks should be resolved independently, even if they are coordinated.

On the one hand, Russia's appeal in the eyes of required categories of immigrants will depend on the migration potential in CIS countries which is shrinking (by approximately 5–6 million people) or will have to gradually shift to Europe, America, Asia and Australia. Russia should more actively develop its immigration potential in necessary scope and parameters in "traditional" (CIS, Vietnam) and "new" geopolitically promising partner countries by dissemination of the Russian language and the promotion of Russian literature, education and science. Russian cultural influence should increase, through dissemination of the Russian language, Russian literature, the mass media, and cultural, educational and scientific events.

It is necessary to develop a special state program to attract educational (student) migrants in Russia from CIS, Europe, Middle East, South East Asia and Latin America. Special attention should be given to attract children of compatriots, living abroad, to study in Russia. In addition to the above measures, this program should include financing of exchange programs, scientific and research projects, and grants for young people to visit and study in Russia. Development of this program may bring demographic, social, economic and geopolitical benefits to Russia.

On the other hand, the appeal of migration to Russia depends on removing administrative bureaucratic "barriers" on the way to obtain work permits, temporary residence permits, registration certificates and Russian citizenship for necessary categories of immigrants. These include foreign students, postgraduate students, qualified workers, researchers, specialists with high qualification and rare professions, top managers, businessmen, investors.

In addition, the Russian Federation has a significant reserve represented by immigrants who already live in the country but for various reasons have no legal status or opportunity to obtain it due to bureaucratic procedures (according to preliminary estimates, 2–3 million people, maybe more). It is possible to hold a special campaign to legalise immigrants who did not violate Russian laws, have worked in the country for several years, are integrated into Russian society, have property, but have had no opportunity to become Russian citizens.

Based on the above analysis, priority measures to optimise migration gains may be formulated as follows:

1) In terms of improving the State program to encourage compatriots to return:

1.1) Ensure that all compatriots wishing to move to Russia go through a simplified procedure to obtain Russian citizenship in countries where they live before they arrive in the Russian Federation.

1.2) Do not limit opportunities for participants of the State Program to Return Compatriots to Russia with regard to selecting regions to live in. This measure will be more effective if it does not require returning compatriots to move to rural areas which do not even enjoy demand among local inhabitants.

1.3) Expand opportunities for obtaining professional education in the Russian Federation for applicants from Russian-speaking families and adaptation courses for them, taking into consideration differences in educational programs between Russia and countries they live in.

This measure will enable Russia to better attract young compatriots from abroad and make it easier for them to adapt to the Russian social environment. Allocate special educational grants from the Russian Federation budget to children from compatriot families for entering Russian higher education institutions. This will ensure an inflow in Russia of human resources especially valuable in demographical terms and, at the same time, financial support to the most effective higher education institutions. Such programs may be launched through a pilot project, with a focus on one of the most developed European countries (for instance, Germany), with subsequent expansion to other countries if successful.

1.4) Ensure effective financing and promotion of state support to current operating Russian language and cultural programs in countries where compatriots live, so as to facilitate early adaptation of compatriots to Russian conditions in case of relocation, promote Russian culture and expand Russia's influence on these countries.

1.5) Recognise dual citizenship, and simplify procedures to retain Russian citizenship for emigrants and their descendants.

2) In terms of development and implementation of state programs to attract educational (student) migrants to Russia from abroad:

2.1) Approve the state program to attract educational (student) migrants to Russia, which includes exchange programs, language courses, grants for trips and secondments.

2.2) Permit employment of foreign students and postgraduate students, who study in Russian higher education institutions, with certain hour limits.

2.3) Ensure that migrants who obtained secondary and higher vocational education in Russia or studied for a certain period of time (for instance, at least 10 years) automatically become Russian citizens.

3) In terms of facilitating adaptation of labour migrants and integration of part of them in the Russian society:

3.1) Remove bureaucratic barriers on the way to receiving a work permit, a temporary residence permit, a registration certificate, Russian citizenship for necessary categories of immigrants (students, postgraduate students, qualified workers, researchers, specialists of high qualification and rare professions, top managers, businessmen, investors).

3.2) Ensure an opportunity to obtain a registration certificate and citizenship for migrants who have been staying in Russia for a long time and have been integrated in the labour market, provided that they are prepared to integrate in the receiving community. Hold a campaign to legalise immigrants who have not violated Russian laws, worked in the country for several years and integrated in the Russian society.

3.3) Ensure that programs are drafted to integrate in the Russian society migrants who legally stay in the country.

4) In terms of developing domestic mobility of Russian population:

4.1) Develop geographical mobility infrastructure: encourage development of the market for accessible housing for rent by Russia's migrants, hotels and hostels for Russia's migrants.

4.2) Develop chains of head hunting agencies, in line with modern systems of organised recruiting.

4.3) Develop a national information base listing vacancies on the Russian labour market.

4.4) Introduce a system of preferences (housing, land plots, salary markups, social package) for specialists prepared to go to work in geopolitically important regions (Siberia, Far East, Zabaikal region).

4.5) Provide tax benefits to open and do business in geopolitically important regions (Siberia, Far East, Zabaikal region).

4.6) Develop a system to attract graduates from higher education institutions to eastern and borderline regions of Russia by developing "circulation migration" through providing housing and land as property.

5) In terms of reducing "push-out" factors and reducing the emigration from Russia of professionals and researchers:

5.1) Dramatically increase salaries in currently lower-paid government sectors (science, education, culture, art), including payments for labour and for degrees for researchers and lecturers at higher education institutions and research institutions.

5.2) Increase financing of the Russian Foundation for Basic Research and the Russian Foundation for Humanities, including support of Russian and international research centres, programs for secondments of foreign researchers and postgraduate students in Russia, Russian researchers and post graduate students abroad, restore grants for Russian researchers to have secondments and attend conferences abroad.

5.3) Provide researchers with an opportunity for spending resources on surveys, conferences and business trips without bureaucratic limitations, and based on actual costs.

5.4) Develop scientific exchange programs, invite foreign researchers to Russian research centres and provide opportunities for Russian researchers to have secondments in foreign research centres sponsored by the state.

5.5) Establish the direct financing system for effectively working research teams and centres on a tender basis at the expense of grants and budget allocations.

CONCLUSION

Today, the share of the working-age population in Russia's total population is one of the highest among all large developed countries. This specific feature offers an undoubted advantage compared to other countries and a historic chance – a wonderful opportunity to overcome a demographic hole and make a breakthrough in economic development.

However, this exceptional situation will soon change forever, unless urgent measures are taken now. According to expert estimates, in just 20 years the age group of 20-40 years in Russia could be reduced by half. In a decade, the number of people aged 20–30 will also almost halve. People of these generations have the greatest potential for childbirth and active work. Their number is declining steeply. Today, we have half as many 15-year old people as 25-year olds! The conclusion is evident: Russia has just two or three years to strengthen family, raise fertility and improve productivity to restore positive demographic momentum. Either the best conditions are created for these young people to give birth and raise children, increase fertility and become highly productive labour or in several decades, Russia will become a hopelessly aged and poorer country, at risk of being unable to preserve its territory and its heritage. If we miss the historical chance described above, we will lose our historic chance at revival.

The upcoming decline in births due to the dramatic fall in the number of young women, made worse by the progressive loss of our employable population by more than a million annually, with more and more widespread family and children being ill, hundreds of thousands of deaths caused by alcohol, drugs and smoking, numerous excluded and deviant categories of population; altogether these factors in their entirety represent a definite threat to national security, capable of causing a population decline only comparable to the large-scale application of hostile military power on our territory. Needless to say, such a situation is extraordinary and requires decisive and urgent measures. Our duty is to do our best to ensure that the potential of younger generations is fulfilled as much as possible, to prevent these negative phenomena from progressing further, and not to allow the quantitative decrease and qualitative degradation of our people, and destruction of the national potential of our great country.

A response to this extraordinary challenge requires special efforts to coordinate the development and implementation of pro-family policy measures, make Russian society more attractive to both high skill and moderate/low skill workers as a place to live and raise families and a target for migration, and to interact with traditional religious confessions and other organisations having the potential to undertake pro-family education and relevant social work.

The current generation, while still abundant, is called to resolve two tasks which are generally hard to resolve at the same time–to give birth to a large number of children and to build a new modern economy. This will require special measures aimed to create opportunities for parents to combine work and childbearing without limitations on their careers or the welfare of their families. The models of the American "baby boom" of the 1960s – when widespread prosperity and opportunities for jobs and housing led families to commonly have more children than previous generations – and of France and the Scandinavian countries where extensive policies for family support and child care have produced the highest fertility levels in Europe, are worth trying to emulate.

It is widely believed that the problems of Russia's declining population may be resolved through immigration. However, this is not the case, since all former USSR countries, without exception, are going through their own demographic crises. We need to multiply the quantitative and qualitative potential of our people.

It is necessary to consistently pursue the policy of promoting traditional family and ethical values. A family with a large number of children which is very often regarded negatively today should become the goal of national life! Efforts of the state are not enough here. It is important to consolidate and direct civil society, the media, business, science and education to resolve this task. The religious factor may be the most important here.

Today, failure to act, more than ever, means that continued deterioration in the numbers and health of our population would materialise, while active professional managerial actions will ensure that our national potential is preserved and developed and our country is placed on a path to a stable and more prosperous population.

APPENDICES

Appendix 1. Calculation methodology

We have based our population projections on the standard methodology of building demographic forecasts[126]. The calculations were made on an annual basis. At step one, an equation (1) is used to calculate the number of the dead based on annual mortality ratios and migration inflow. The age structure was modified in accordance with the calculation. At step two, equations (2F) and (2M), the number of infants is calculated based on childbirths and infant survival rate and migrations (migrants with infants). Based on the current age structure, the number of women is calculated for each 5-year group. The number of babies is calculated for each group using age fertility ratios and then summed up. We assumed that 100 hundred girls are born per 105 boys. Then the age structure is moved "down" to the previous year and the number of babies is recorded at the very beginning. The time calculator is increased by one year and then the calculation is repeated (step one and then step two).

Preparation of source data. Source data for birthrates were calculated based on age (5-year groups) fertility ratios and target values[127] by linear interpolation. A similar procedure[128] was performed for mortality and[129] migration.

We took as source data the age and sex structure for 2010[130]. The calculation started from 2010.

The drawback of the Demographic Concept is that mortality is recorded in relative units. We used age and sex mortality per 1,000 people as a demographic indicator for actual calculations.

Equations used for calculations are as follows:

$$u_{\mathrm{M,F}}(\tau,t) = \frac{2 - d_{\mathrm{M,F}}(\tau-1,t-1)}{2 + d_{\mathrm{M,F}}(\tau,t-1)}\, u_{\mathrm{M,F}}(\tau-1,t-1) + m_{\mathrm{M,F}}(\tau,t), \quad (1)$$

$$u_{\mathrm{F}}(0,t) = \frac{100}{205} L_{F0}(t-1) \sum_{\substack{\nu=15 \\ \nu:5}}^{49} b(\nu,t-1) \sum_{\eta=0}^{4} \bar{u}_{\mathrm{F}}(\nu+\eta,t-1) + m_{\mathrm{F}}(0,t-1)\,, \quad (2F)$$

$$u_{\mathrm{M}}(0,t) = \frac{105}{205} L_{M0}(t-1) \sum_{\substack{\nu=15 \\ \nu:5}}^{49} b(\nu,t-1) \sum_{\eta=0}^{4} \bar{u}_{\mathrm{F}}(\nu+\eta,t-1) + m_{\mathrm{M}}(0,t-1)\,, \quad (2M)$$

where

t – time variable (in this case one year),

τ – lower band of the age group

$u_{\mathrm{M,F}}(\tau,t)$ – number of persons (hereinafter lower indices mean M – men, F – women) aged from τ to $\tau + 1$ years at the moment of time t,

$\bar{u}_{\mathrm{M,F}}(\tau,t)$ – year average number of persons (hereinafter lower indices mean M – men, F –

[126] See: E. Andreev, Vishnevsky A. Demographic Prospects of Russia till 2050. *Russia's Population 2006* [Demograficheskiye perspektivy Rossii do 2050 g. Naseleniye Rossii 2006] / Ed. A. Vishnevsky. Moscow: HSE, 2008. P. 265–288; Belotelov N. V. *et al.* Ecological, social and economic model: the human and informational aspects [Ekologo-sotsial'no-ekonomicheskaya model': gumanitarnyy i informatsionnyy aspekty]. *Informatsionnoye obshchestvo* 6 (2001): 43–51; Pavlovsky N. *et al. Computer simulation for analysis of socioeconomic phenomena* [Opyt imitatsionnogo modelirovaniya pri analize sotsial'no-ekonomicheskikh yavleniy]. Moscow: MOH Press, 2005.

[127] Rosstat. Electronic database. Accessed: July 29, 2013. URL: http://cbsd.gks.ru/.

[128] Human Mortality Database. Electronic database. http://www.mortality.org/hmd/RUS/STATS/Mx_1x1.txt.

[129] We have used in our calculations estimates of the demographic structure of migration flow kindly provided to us by E. Andreev; it is similar to the ones used by E. Andreev and A. Vishnevsky in their projections of the demographic development of Russia until 2050.

[130] Rosstat. Electronic database. Accessed: July 29, 2013. URL: http://cbsd.gks.ru/.

women) aged from τ to τ + 1 years at the moment of time *t*,

$b(\tau, t)$ – age specific birth rates, women, age from τ to τ + 4 (i. e. by 5-year groups) at the moment of time *t*,

$d_{\mathrm{M,F}}(\tau, t)$ – age specific mortality rate, age from τ to τ + 1 at the moment of time *t*,

$m_{\mathrm{M,F}}(\tau, t)$ – number of migrants (arrived in the country), this number (generally) may be negative in case of population outflow from the country.

$L_{M0,F0}(t)$ – Infants survival function at time t

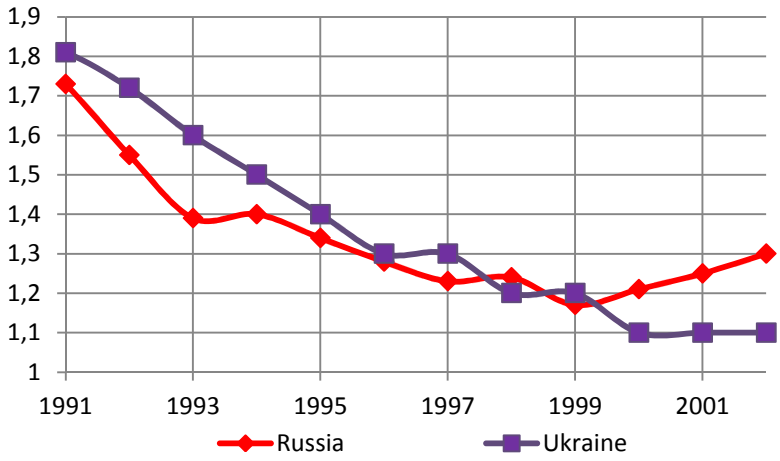
Equation (1) describes shift of the age structure by one year (due to mortality and migration), equations (2F) and (2M) describe the "source" (i.e. number of babies).

Appendix 2. On using external migration gains as the main source of resolving Russian demographic problems

Generally, we view it as extremely risky to draft plans on resolving Russia's demographic problems through migration gains (rather than by stimulating birthrates and liquidation of Russia's excessively high mortality rates). The point is that all CIS countries (the main demographic donors for Russia) have faced their own demographic dips related to a steep decline in fertility rates of the 1990s (in Ukraine it was even steeper than in Russia, see Figure A2.1):

Fig. A2.1. Total fertility rate dynamics ratio in Russia and Ukraine (childbirths per woman), 1991–2002

	Russia	Ukraine
1991	1.73	1.81
1992	1.55	1.72
1993	1.39	1.60
1994	1.40	1.50
1995	1.34	1.40
1996	1.28	1.30
1997	1.23	1.30
1998	1.24	1.20
1999	1.17	1.20
2000	1.21	1.10
2001	1.25	1.10
2002	1.30	1.10

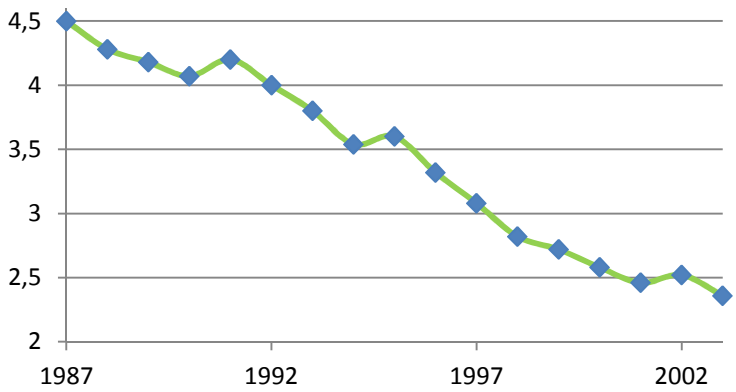


Source: World Bank. World Development Indicators Online. Washington, DC: World Bank, 2013. URL: http://data.worldbank.org/indicator/SP.DYN.TFRT.IN

The steepest decline in birthrates was registered in Central Asia, although from a very high level. Therefore, these countries are not yet facing the depopulation problem, but they are already having a significant slowdown in labour force gains (see Figure A2.2):

Fig. A2.2. Total fertility rate dynamics in Uzbekistan (childbirths per woman), 1987–2003

1987	4.50
1989	4.18
1991	4.20
1993	3.80
1995	3.60
1997	3.08
1999	2.72
2003	2.36



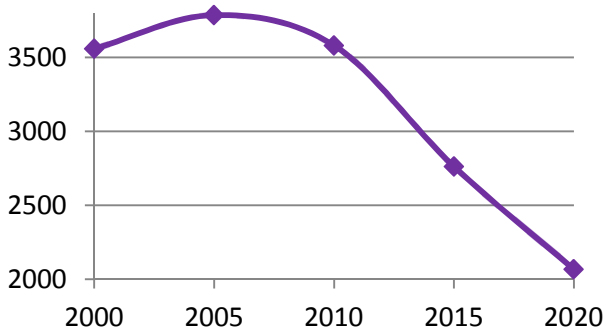
Source: World Bank. World Development Indicators Online. Washington, DC: World Bank, 2013. URL: http://data.worldbank.org/indicator/SP.DYN.TFRT.IN

As a result, over the next years, the labour market in CIS countries will see smaller and smaller cohorts in the age groups most likely to emigrate (Figures A2.3–A2.4), which will lead

to a significant fall in the local excessive labour force and act as the main driver decreasing migration gains for Russian population.

Fig. A2.3. Dynamics of age group 20-25 years in Ukraine (thousand people), 2000-2010, with forecast till 2020.

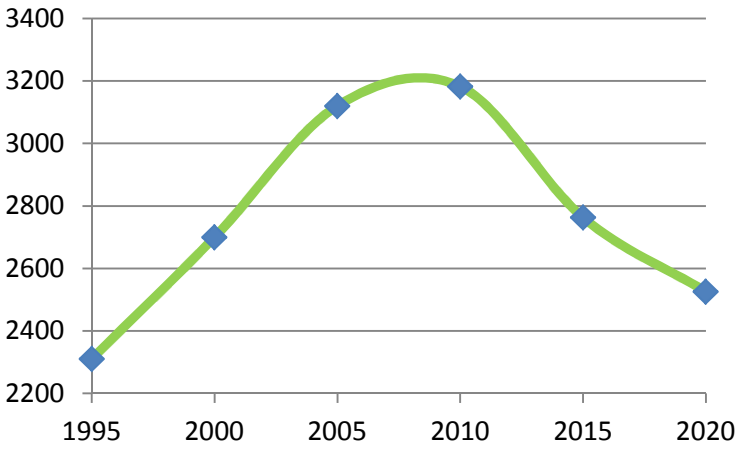
Year	Age group 20-25 years in Ukraine (thousand people)
2000	3,558
2005	3,785
2010	3,580
2015	2,762
2020	2,068



Source: UN Population Division database. URL: http://esa.un.org/unpp/index.asp?panel=2.

Fig. A2.4. Trend of age group 15-19 years in Uzbekistan (thousand people), 1995-2010, forecast till 2020.

Year	Age group 15-19 years in Uzbekistan (thousand people)
1995	2,311
2000	2,700
2005	3,120
2010	3,182
2015	2,763
2020	2,526



Source: UN Population Division database. URL: http://esa.un.org/unpp/index.asp?panel=2.

Appendix 3. Analysis of subprogram "Assistance to Voluntary Relocation to the Russian Federation of Compatriots Living Abroad"

As part of the State Program of the Russian Federation "Regional Policy and Federative Relations" approved in 2013, subprogam No.3 was approved "Assistance to Voluntary Relocation to the Russian Federation of Compatriots Living Abroad" up to 2020. The total budget of the subporgram is over RUB 22 billion.

The first stage of the subprogram is implemented in 2013–2015. 30 Russian constituent entities are expected to take part in the subprogram in 2013, 40 in 2014 and 45 in 2015.

Constituent entities participating in the subprogram should approve regional relocation programs which will be endorsed at the federal level and receive co-financing from the federal budget. Also, the list of territories for priority settlement will be approved at the federal level (areas strategically important for Russia and characterized by population outflow and falling number of employable people).

The following advantages are provided for compatriots participating in the program: payment of relocation allowance, compensation of transport expenses and document preparation fee, payment of monthly allowance in the absence of income from labor, business or other activity. In order to ensure jobs for relocated workers under the program, it provides for an opportunity to coordinate an invitation for relocation with future employer. As a result of the subprogram, 35,000 compatriots are expected to be relocated.

However, a focus on "priority settlement areas" may prove to be a barrier to maximum implementation of the subprogram. As a matter of fact, a considerable migration outflow, especially employable population, may point to comparative unattractiveness of life conditions (including employment opportunities) in this region as compared to other regions (and compared to conditions in countries where compatriots live). However, an attempt to attract compatriots under these conditions may appear not quite successful, even taking into consideration financial advantages provided under the program.

Appendix 4. Religious factor of fertility growth

As regards modern Russia, we may say that religiosity is a factor increasing fertility in the country. However, this impact is significant only among people involved in religious practices (ordinances, ceremonies) on a regular basis and participating in life of religious communities. According to the all-Russian survey OrthodoxMonitor (2011-2012)[131], the share of large families is higher among churched Orthodox than the average for Russia and the share of families without children is fewer. The share of large families among representatives of other confessions is also high (15%).

Table A4.1. Religiosity and number of children in a family. Respondents aged 18–45 years

	no religion	Orthodox, frequency of communion				Other religion
		less than once a year	several times a year	once a month	centre of community	
no children	46	32	29	31	37	39
one child	28	35	39	27	24	26
two children	21	27	26	26	15	20
three children or more	5	6	6	**16**	**24**	**15**
average number of children	0.9	1.1	1.1	1.3	2.2	1.1
Sampling (number of respondents)	248	913	356	81	46	142

Among Orthodox respondents who take one or more communion a month, 16% have a three-children family, while people who may be regarded as a centre of the community (in terms of self-identification and involvement in social life it their laity), this indicator increases to one fourth of the polled (24%).

Table A4.2. Do you have children? If yes, how many? (respondents aged 18–45) (%)[132]

	Total community	Periphery	Center
no children	52	53	50
one child	18	20	16
two children	13	16	11
three children or more	17	11	23
Sampling (number of respondents)	442	206	236

Speaking of Russian people who regard themselves as Orthodox and participate in the church ordinances, we need to consider more specific differences. In terms of the fertility problem, an important factor is that a person participates in out-of-church activities of the Orthodox community and belongs to a developed community.

Also, communities, as compared to average statistical Russian people, have a considerably higher share of women planning to have a child (another child) over the next three

[131] «Orthodox Monitor» (2011–2012).

[132] Zabaev I., Oreshina D., Prutskova E. *Three Moscow parishes: basic sociodemographic indicators* [Tri moskovskikh prikhoda: osnovnyye sotsial'no-demograficheskiye pokazateli]. Moscow: PSTGU, 2012.

years – 29% of women in communities and total of 7% in all-Russian sampling answered "definitely yes" when asked whether they intend to do it (see Table A4.3);

Table A4.3. Are you going to have a child (another child) over the next three years? (women aged 18-45) (%)[133]

	Total community	**Periphery community**	**Centre of community**	**Total Russia**
definitely not	8	10	7	51
rather not	10	11	9	20
rather yes	21	20	22	16
definitely yes	29	31	28	7
if God blesses me	0		1	
it's too early	0		1	
only if I get married	2	2	2	
my age does not allow that	1	1	1	
no response	5	3	6	5
hard to say	23	23	24	
Sampling (number of respondents)	321	131	190	3,086

A.B. Sinelnikov, V.M. Medkov and A.I. Antonov, based on a sociological survey "Religion, Family, Children" and, as part of analysis of the impact of religion in Russia on family life and demographic behaviour of population, found out that not quite religious people have "average expected number of children of less than two" (even very religious Christians have this indicator equal to 2.53)[134]. If we single out religiously active people (by frequency of reading prays) from this group, their indicators of average actual, expected, desired and ideal number of children is considerably higher. "Quite religious Christians which pray at least three times a day, the average expected number of children is 2.82" which is "higher than just the generation replacement line"[135]. And "if we add to this additional parameters of religious activity, for instance, frequency of confessions and communions, the indications ... may be even higher". However, the higher is the degree of their religious activity, the lower is their number.

In their article "Differentiation of childbirth factors for various social and economic categories of Russian women" Ya. M. Roschina and A. G. Cherkasova (using data of the Russian monitoring of economic position and health of population for 2000–2006) concluded that "religious women are more likely to have child" [136] (analysis was based on selection of women aged from 16 to 39).

It's noteworthy that based on "Analytical report based on selective survey of reproductive plans of population", performed by the Russian Federal State Statistical Service in 2012, "both the desired and expected number of children, on the average, for women and men is higher among people who consider themselves religious"[137] (see Table A4.4):

[133] Zabaev I., Oreshina D., Prutskova E. *Three Moscow parishes: basic sociodemographic indicators* [Tri moskovskikh prikhoda: osnovnyye sotsial'no-demograficheskiye pokazateli]. Moscow: PSTGU, 2012.

[134] Sinel'nikov A., Medkov V., Antonov A. *Family and faith in sociological perspective (results of interregional and inter-religious studies)* [Sem'ya i vera v sotsiologicheskom izmerenii (rezul'taty mezhregional'nogo i mezhkonfessional'nogo issledovaniya)]. Moscow: KDU 2009. P. 169–170.

[135] Sinel'nikov A., Medkov V., Antonov A. *Family and faith in sociological perspective (results of interregional and inter-religious studies)* [Sem'ya i vera v sotsiologicheskom izmerenii (rezul'taty mezhregional'nogo i mezhkonfessional'nogo issledovaniya)]. Moscow: KDU 2009. P. 197–198.

[136] Roshchina Y. Modeling of factors of family propensity to have a child in Russia [Modelirovaniye faktorov sklonnosti sem'i k rozhdeniyu rebenka v Rossii]. SPERO 5 (2006): 98–133.

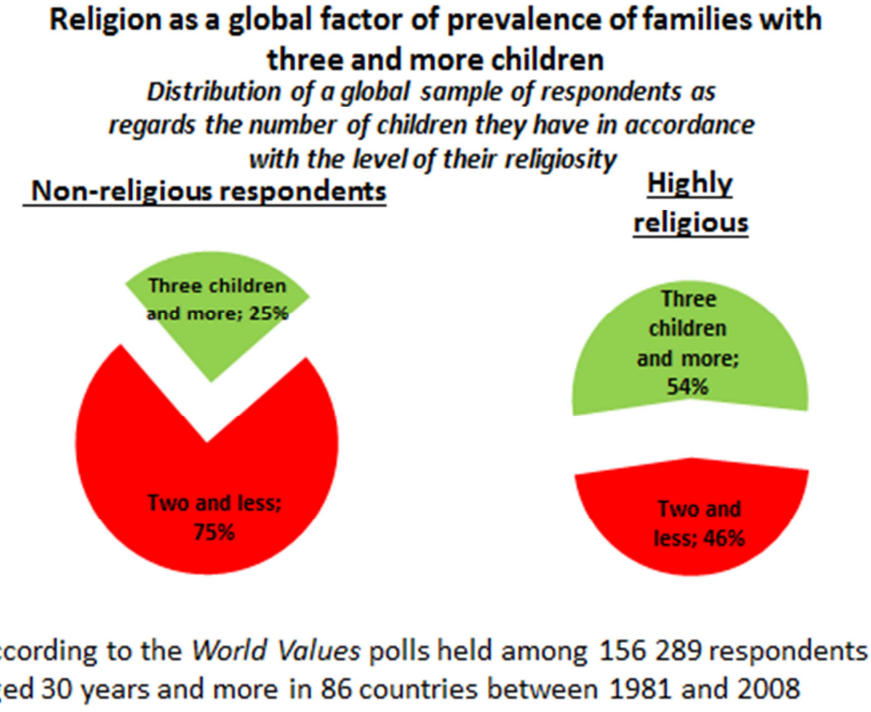
[137] *Rosstat. Analytical report on the results of the sample survey of reproductive plans of population* [Rosstat. Analiticheskiy otchet po itogam vyborochnogo nablyudeniya reproduktivnykh planov naseleniya]. 2012. Published: 24.01.2013. URL: http://www.gks.ru/free_doc/2012/demo/orp.doc. Accessed: 09.08.2013. P. 32.

Table A4.4. Desired and expected number of children depending on whether respondent considers himself/herself religious[138]

Do you consider yourself religious?	Women		Men	
	Average desired number of children	Average expected number of children	Average desired number of children	Average expected number of children
Yes	2.34 (3,583)	1.96 (3,452)	2.43 (2,626)	2.02 (2,568)
No	2.07 (1,002)	1.80 (958)	2.10 (1,629)	1.77 (1,576)
hard to say	2.28 (374)	1.87 (362)	2.23 (396)	1.85 (378)

These results are affirmed by data of surveys held both globally and in individual foreign countries. Specifically, data from the World Values international program steadily show that religious families tend to have many more children than non-religious (see Figure A4.1):

Fig. A4.1. Religiosity as global factor of having large families



D. Filippov and C. Berghammer, who analysed the impact of religion on fertility among some European countries, stated that religiosity impacts various fertility indicators – ideal number of children, likelihood of having the next child, expected and actual number of children. The researchers distinguished three mechanisms by which religiosity affects fertility rates: religious doctrine, the social capital of religious people and the ability of religion to decrease human feelings of uncertainty[139]. Speaking of the importance of social capital, we need to mention a number of surveys stating that the availability of an informal social support network positively impacts a desire to have another child[140]. In some countries, this effect is observed where there is

[138] Rosstat. *Analytical report on the results of the sample survey of reproductive plans of population* [Rosstat. Analiticheskiy otchet po itogam vyborochnogo nablyudeniya reproduktivnykh planov naseleniya]. 2012. Published: 24.01.2013. http://www.gks.ru/free_doc/2012/demo/orp.doc. Accessed: 09.08.2013. P. 32. Table 38.

[139] Philipov D., Berghammer C. Religion and fertility ideals, intentions and behavior: a comparative study of European countries. *Vienna Yearbook of Population Research* 5 (2007): 271–305.

[140] See: Di Giulio P. *et al.* Social Capital and Fertility Intentions: The Case of Italy, Bulgaria, and West Germany. *Vienna Institute of Demography*. Working Papers 2, 2012. URL:

a lack of a developed system of state support to families (for instance, in Bulgaria), while in other countries the network may also impact the childbirth decision (Italy). In some countries, religious communities are characterised by more developed networks of this kind.[141]

Various aspects of the impact of religion on fertility are also registered for other countries.[142] Caroline Berghammer, in her survey on quantitative data[143], estimated the contribution of religiosity and religious socialisation on third childbirth among women in the Netherlands. According to an analysis of panel data (2002–2004), two factors impact third childbirth: church attendance by a woman and religious socialisation of a father. Religious socialisation makes a difference, even if a child's mother has stopped attending the church. The effects of the religious factor strengthen subject to groups. Moreover, religious characteristics of grandmothers and grandfathers (parents of respondents) have a significant influence on third childbirth in a family.

In his survey, Guido Heineck[144] (using quantitative data from the *Austrian Family and Fertility Survey*) studied links between religion and fertility among families having the their first/only marriage. According to the results, a woman's religiosity has a positive impact on the number of children in the family. Thomas Baudin stated, also based on quantitative data in his surveys [145] about France[146], that if involvement in confession and self-determination as a religious person did not produce any impact on fertility, participation in practices ("practising religious people") makes a tangible positive impact both on fertility as a whole and the number of children.

All in all, most empirical surveys in this area performed both in Russia and abroad confirm a tangible impact of participation in religious practices on fertility and an even stronger impact of religious socialisation on the part of parents and grandparents (grandfathers and grandmothers).

The results obtained may suggest that religion contains a certain set of settings, norms and values which are transferred (acquired) in the course of socialisation, including the "large family norm".

Possible measures to strengthen the effect of the religious factors in the area of fertility growth

Based on the preceding data, we may suggest that availability of Orthodox (and other traditional religious) communities with developed church and community activities may be instrumental in improving fertility in the country. Therefore, it is advisable to take measures aimed to allow all religious denominations and their communities to flourish:

1. Develop the system of financing initiatives of religious organizations regarding social and charitable activities. For instance, creating grant tenders (both under the presidential

http://www.oeaw.ac.at/vid/download/WP2012_02.pdf. Cited on 20-02-2013; *Gondal N.* Who „fills in" for Siblings and how? A Multilevel Analysis of Personal Network Composition and its Relationship to Sibling Size. *Sociological Forum* 27/3 (2012): 732–750.

[141] Lim Ch., Putnam R. Religion, Social Networks, and Life Satisfaction. *American Sociological Review* 75/6 (2010): 914–933.

[142] Zhang L. Religion, Religiosity and Male and Female Fertility. *Male Fertility Patterns and Determinants* 27 (2011): 117–141; Frejka T., Westoff C.F. Religion, Religiousness and Fertility in the US and in Europe. *European Journal of Population* 24/1 (2008): 5-31; Adsera A. Religion and Changes in Family-Size Norms in Developed Countries. *Review of Religious Research* 47/3 (2006): 271-286; Adsera A. *Marital fertility and religion: Recent changes in Spain*. Bonn: IZA (Institute for the Study of Labor), 2004 (Discussion paper no. 1399); Heaton T. Does Religion Influence Fertility in Developing Countries. *Population Research Policy Review* 30 (2011): 449–465.

[143] Berghammer C. Religious Socialisation and Fertility: Transition to Third Birth in the Netherlands (Socialisation Religieuse et Fécondité: L'arrivée du Troisième Enfant aux Pays-Bas). *European Journal of Population* (Revue Européenne de Démographie) 25/3 (2009): 297–324.

[144] Heineck G. The Relationship between Religion and Fertility: Evidence for Austria. *Homo Oeconomicus* 29/1 (2012): 73–94.

[145] Baudin T. Religion and Fertility: The French Connection. *Centre d'Economie de la Sorbonne Working Papers* 89 (2008): 1–33; Baudin T. *More on Religion and Fertility: The French Connection.* October 31, 2012. URL: http://www.thomasbaudin.fr/More%20on%20French%20Connection.

[146] Data from the research project "Survey of the French way of life".

administration, and related ministries and departments) both at the federal level, and in regions and municipal formations.

2. Create a system of economic, legal, information basic education for potential participants of grant tenders. Develop training sessions for participants to form skills for preparing tender documentation and project reports, share knowledge and skills required for preparing such documentation.
3. Provide premises to arrange social activity for churchs and religious organizations, especially activity aimed to work with Russian people of reproductive age and with children (Sunday schools, youth groups, mother and baby homes, recreation centres for parents and children etc.).
4. Support the websites and the media of all traditional religious confessions (especially those devoted to family, motherhood and childhood), and ensure they have access to be televised via federal channels.
5. Establish the State Foundation to support large families with participation of the Russian Orthodox Church.
6. Create social family support centres and crisis pregnancy centres in urban areas and municipal districts jointly with the Russian Orthodox Church and other faiths, and ensure their budget financing.
7. Provide assistance for the Russian Orthodox Church's and other faiths' lay education centres which offer, among other services, recreation, sports, educational opportunities for children and their parents. Models of such behavior in the U.S. include the YMCA (young men's Christian Association), von Neumann Centers (Catholic) and JCCs (Jewish Community Centers.) In the US, such 'faith-based initiatives,' which involve funneling state funds through religious organizations to provide community services (without discriminating among faiths) have often been more effective than direct provision of government programs.
8. Removing legislative and administrative barriers to participation of priests with higher education in secondary schools as teachers of mandatory of facultative subjects.
9. Provide an opportunity to hold group consulting events with participation of priests from the Russian Orthodox Church and clergy of other faiths in secondary schools if children and/or their parents so desire (on issues interesting for pupils and selected by pupils).

For many decades, the Soviet Union discouraged public and community religious activities. The recent support of the Russian Federation for the traditional confessions, including funds to restore monasteries and Churches, has been a welcome change in policy. However, for promoting fertility among the Russian people, much more important that restoring buildings is promoting the free expression of religion by people of all faiths, to build strong pro-family religious communities that will encourage child-bearing and support larger families.

Appendix 5. Regional differences in natural population movement and regional demographic policy

Russian regions vary significantly in terms of natural population movement. On the one hand, some regions – primarily, some republics of the North Caucasus and Siberia – have a significant natural population increase, whereas on the other hand, some regions – primarily, in the Central Federal District – have a natural population decline, which exceeds 0.5% per year even after a notable improvement of the demographic situation in recent years.

In 2011, 29 regions recorded a natural population increase. The biggest gains were registered in the Chechen Republic and the Republic of Ingushetia where they exceeded 2% to reach 2.4% and 2.3%, respectively. Four other regions have this ratio above 1%. They are the Republic of Tyva, the Republic of Dagestan, Altay and the Yamalo-Nenets Autonomous District. Four more regions had a natural increase ranging from 0.5% to 1% (the Khanty-Mansiysk Autonomous District - Yugra, the Kabardino-Balkar Republic, the Republic of Sakha (Yakutia) and Tyumen region).

All other regions have a natural population decline. The biggest losses are recorded in Pskov and Tula regions (0.9% and 0.8% in 2011, respectively). Total natural population loss is more than 0.7% in Novgorod, Tambov and Tver regions, more than 0.5% in Bryansk, Vladimir, Voronezh, Ivanovo, Kursk, Leningrad, Nizhny Novgorod, Orel, Penza, Ryazan and Smolensk regions and in the Republic of Mordovia. Total fertility ratio is the smallest in the Central Federal District, in some regions of the North-West and Volga federal districts (especially in Leningrad and Tula regions, in the Republic of Mordovia and in Moscow). The strongest birthrates were registered in some republics of the North Caucasus, Siberia and the Far East. In addition, only four regions (the Republic of Altay, the Republic of Ingushetia, the Republic of Tyva and the Chechen Republic) have birthrates higher than they require to ensure population replacement.

In all regions (except for the Chukotka Autonomous District), total fertility ratio was higher in 2011than in 2005. Its increase in 2011 vs. 2005 is attributable to changes in the birthrates in the regions: higher birthrates brought a higher increase (on the average), whereas lower birthrates led to a lower increase. Among regions with the weakest increase in total fertility ratio, four regions (the Republic of Mordovia, Leningrad and Tambov regions, Moscow) are in the group of regions with the lowest birthrates in 2011.

In the group of regions with the biggest increase in total fertility ratio, half of the regions are represented by regions with the strongest birthrates (the Republic of Altay, the Republic of Ingushetiya, the Republic of North Ossetiya-Alaniya, the Republic of Tyva and the Chechen Republic). Most likely, populations in these regions have higher demand for children, and the state support to second and subsequent childbirths, was perceived there as improved conditions to realise the existing need in children, had a stronger impact on reproductive behaviour.

Analysis of data on birthrates by birth order suggests that the likelihood of second childbirth is relatively low, first and foremost, in the Republic of Karelia, the Republic of Komi, the Khabarovsk, Vladimir, Voronezhm Ivanovo, Kirov, Kostroma, Kursk, Lipetsk, Moscow, Novgorod, Orel, Penza, Pskov, Samara, Saratov, Sakhalin, Smolensk, Tambov, Tula and Yaroslavl regions and in Saint Petersburg[147]. Most of these regions have been characterised for a long time by a large number of one-child families rather than just small families. These regions need to focus on support to second birthrates and provide for significant differentiation in various types of allowances and benefits for families with children so that two-children families have much more favourable conditions than one-child families do.

Stronger growth of the total fertility ratio for second and subsequent children in 2007-2011 may underscore that the population in these regions is more inclined (as compared to people in other Russian constituent entities) to respond with their reproductive behaviour to similar measures in the future. This means that it is advisable to evolve measures in these regions

[147] Only those regions are at issue, for which data on birth order rate among childbirths are available for 2011.

that have already been implemented there.. Such regions, for example, may have a stronger effect from maternity (family) capital. Most likely, families there would show a relatively more active response to various forms of financial support. First and foremost, such regions include the Republic of Kalmykia, the Mari El Republic, the Republic of Tatarstan, the Republic of Udmurtia, the Republic of Khakassia, the Chuvash Republic, Kostroma, Omsk and Chelyabinsk regions[148].

On the contrary, weaker growth of total fertility ratio for second and subsequent births in 2007-2011 in most of the other regions may suggest that such measures are obviously insufficient to ensure more or less notable fertility growth. This trend is primarily observed in the Republic of Mordovia, Primorsk, Leningrad, Moscow, Murmansk, Penza and Tula regions and Saint Petersburg. Regional demographic policy measures regarding birthrates may be divided into three groups: measures taken to complement and expand federal measures (a regional one-time maternity grant, including amounts differentiated subject to birth order, an increase in monthly benefit for children under 1.5 years at the expense of the regional budget for certain categories of families, regional maternity (family) capital); new measures proposed by the federal centre and implemented by regions (a monthly payment for third and subsequent children under three years old in the amount of the child's minimum subsistence level, in demographically weak regions it is co-financed by the federal budget); providing land plots to large families (to build a house or a summer cottage); and measures initiated at the regional level.

The latter include, for instance, measures to support low-income families with children, pregnant and fostering mothers (for instance, the Republic of Buryatia, Kamchatka, Irkutsk, Kaluga and Kirov regions). A monthly benefit for children from three to six years, higher than monthly benefits for children under 16 years, is paid in Saint Petersburg, the Yamalo-Nenets Autonomous District, the Republic of Komi, the Republic of Sakha (Yakutia) and Leningrad region to various kinds of families: low-income families, families with children or both parents disabled, children in incomplete families, families where fathers avoid alimony payments, families of servicemen during their military call-up). Some regions pay monthly children benefits for children who do not attend preschool education institutions due to their capacity shortage or for medical reasons (Arkhangelsk, Kemerovo, Smolensk, Yaroslavl regions, etc.). An increased child benefit for children who do not attend children's preschool education institutions is paid to families with three and more children in the Republic of Altay, the Republic of Karelia, the Republic of Mordovia, Zabaikal, Kamchatka, Khabarovsk and Perm, Belgorod, Vologda, Lipetsk and Murmansk regions.

From 2005 to 2011, life expectancy increased by 5.1 years for men and 3.3 years for women to 64.1 and 75.7 years in 2011, respectively. The life expectancy for the Russian Federation’s population on the whole is 69.8 years. Mortality trends still vary significantly across various regions, with the gap in life expectancy being more than 15 years for men and 13 years for women. Meanwhile, regions with high mortality (Kaliningrad, Leningrad, Ivanovo, Pskov, Arkhangelsk regions) recorded the strongest increase in life expectancy. This should have helped to narrow the gap in mortality rates between various regions. However, along with weak regions, strong growth rates were registered in regions with leadership positions in terms of life expectancy: Moscow and Saint Petersburg.

Regions with an insignificant increase in life expectancy have similar diversity. On the one hand, they include North Caucasus regions with formally high life expectancy, whose reliability is doubtful due to low quality of statistical service (the Chechen Republic, the Dagestan Republic, the North Ossetiya Republic, the Karachay-Cherkessia Republic); while on the other hand, this group also includes regions with average (Samara and Orenburg regions, the Republic of Bashkortostan and the Republic of Mordavia) and even high (the Kamchatka region, the Republic of Sakha (Yakutia), Magadan region) mortality.

In most regions, life expectancy growth for men and women closely correlates with mortality declines in medium and old employable age categories. The age profile of life

[148] Out of 35 regions for which data on birthrates by birth order are available for 2005 and 2011.

expectancy growth differs significantly subject to achieved levels and the scale of this increase over the last five years. In the group of strong regions, age profile of life expectancy increase is diluted in all categories of adult population from young to elderly people, which points to a wide range of measures to reduce mortality in these categories. In regions with higher life expectancy than the Russian average, slower life expectancy growth in the last five was due to the fact that is mostly increase in the medium and old working age categories.

In the group of regions with lower life expectancy than the Russian average, the growth was achieved due to mortality decrease in the middle and young ages for men, while for women it was dependant on the medium and elderly age categories. In the group of regions with relatively high mortality and a higher increase in life expectancy than the Russian average, this increase strongly correlates with a reduction in mortality in all categories of working age population from 15 to 60 years old and does not correlate with mortality trend in the elderly and old age categories. This correlates well with the explanation that in most Russian regions recent life expectancy increase occurred to a large extent due to decrease in harmful alcohol consumption[149].

Analysis of the 2012 regional data

In 2007, the strongest gains in total fertility rate were recorded in the Republic of Tyva (0.57), the Republic of Altay (0.38), the Chechen Republic (0.37), the Kabardino-Balkar Republic (0.29), the Karachay-Cherkessia Republic (0.25), the Republic of Ingushetia (0.22), the Republic of North Ossetiya – Alaniya (0.21) and the Republic of Khakassia (0.20).[150] Almost all of these regions (except for the Kabardino-Balkar Republic) were characterised by relatively high growth rates in previous years. We may assume that population in these regions still needs relatively more children due to the fact that state support to childbirths, perceived as improved conditions to realise the existing need in children, had a stronger impact on taking a decision about childbirth.

The year 2012 was marked by other regional differences in total fertility rate gains. Regions that registered growth rates much stronger than in Russia (0.11) on the whole include the Nenets Autonomous District (0.34), the Yamalo-Nenets Autonomous District (0.22), the Khanty-Mansiysk Autonomous District – Yugra (0.18), the Chukotka Autonomous District (0.16), the Komi Republic (0.18), the Republic of Khakassia (0.17), the Republic of Mari El (0.17), the Chuvash Republic (0.16), the Republic of Udmurtia (0.15), the Republic of Tatarstan (0.14), the Altai (0.16), Krasnoyarsk (0.14) Kurgan (0.21), Omsk (0.20), Magadan (0.18), Kemerovo (0.17), Kirov (0.17), Vologda (0.16), Tyumen (0.16), Lipetsk (0.16), Orenburg (0.15), Sakhalin (0.15), Astrakhan (0.14) and Novgorod (0.14) regions. By contrast, the Republic of Ingushetia and the Chechen Republic saw a decline in total fertility rate in 2012 as compared to the 2011 level.

Nearly all of these regions with a strong increase in total fertility rate saw a more significant increase in 2012 as compared to the 2007 level (except for the Republic of Udmurtia, the Republic of Khakassia, the Chuvash Republic, the Altay and Orenburg regions).

If we assume that a stronger increase in fertility rates in 2012, to a certain extent, was impacted by new regional demographic policy measures, regional differentiation of this impact should be primarily assessed by fertility rates at third and subsequent childbirths, since most regions grant regional regional maternity (family) capital at third and subsequent childbirths and land plots for residential construction are granted to families with three and more children.

The strongest total fertility rate gains for third and subsequent childbirths in 2012 (among regions for which birth order data are available for 2011 and 2012) were recorded in the Yamalo-

[149] Khaltourina D. (2006) Decreased production of alcohol saved the lives of 66 thousand Russians in the first seven months of 2006 [Snizheniye proizvodstva alkogolya spaslo zhizni 66 tysyacham rossiyan za pervyye sem' mesyatsev 2006 g.]. *Narkologiya* 12 (2006); Pridemore W., Chamlin M., Kaylen M., Andreev E. The impact of a national alcohol policy on deaths due to transport accidents in Russia. *Addiction* 108/12 (2013): 2112–2118.

[150] By comparison, this gain in Russia on the whole amounted to 0.11.

Nenets Autonomous District (0.079), in the Republic of Sakha (Yakutia) (0.071), the Republic of Khakassia (0.063), the Republic of Kalmykia (0.059), the Komi Republic (0.059), the Chuvash Republic (0.056) and the Republic of Karelia (0.044), in Omsk (0.060), Orenburg (0.049), Kemerovo (0.045), Novgorod (0.045), Sakhalin (0.044), Astrakhan (0.042), Kirov (0.042), Murmansk (0.041) and Novosibirsk (0.040) regions.

Nearly all of the above regions with high total fertility rate gains at third and subsequent childbirths posted a stronger increase in 2012 than in 2007 (except for the Republic of Kalmykia).[151]

On the other hand, the lowest (among regions for which birth order data are available for 2011 and 2012) increase in total fertility rate at third and subsequent childbirths was recorded in the Republic of Dagestan (0.006). The Republic of Tyva saw a minor (by 0.007) decrease in total fertility rate at third and subsequent childbirths in 2012, as compared to the 2011 level. As a matter of fact, the Republic of Dagestan has no regional maternity (family) capital, with one-time payment provided only starting from fifth childbirth, while the Republic of Tyva has the same payment in the form of maternity (family) capital.

Analysis of regional family policy measures

Regional maternity (family) capital exists in most Russian regions, except for the Republic of Bashkortostan, the Republic of Dagestan, the Republic of Ingushetia, the Republic of Tatarstan, the Republic of Udmurtia, the Chechen Republic, the Penza region and the city of Moscow.

Federal maternity (family) capital is provided at second or subsequent childbirth (adoption), while regional maternity (family) capital is provided, as a rule, at third or subsequent childbirth (adoption). The exceptions are the Moscow, Nizhny Novgorod, Sakhalin, Smolensk and Ulyanovsk regions where maternity (family) capital is paid, like federal maternity (family) capital, starting from second childbirth. Some regions, by contrast, pay maternity (family) capital at fourth and subsequent childbirths rather than at third childbirth: the Republic of Altay, the Karachay-Cherkessia Republic and the Republic of Mari El – at fourth childbirth, the Kabardino-Balkar Republic and the Republic of Tyva – at fifth childbirth, the Republic of Buryatia – at seventh childbirth.

As noted above, the biggest regional maternity (family) capital (RUB 350,000) is approved in the Yamal-Nenets Autonomous District. The Nenets Autonomous District ranks second in terms of this amount, with RUB 300,000.

Up to RUB 300,000 may also be received at third or subsequent childbirth (adoption) in the form of maternity (family) capital in the Kostroma region, but only as initial instalment under mortgage loans, principal payment and interest payment under residential mortgage loans when a house is acquired (built). It is quite understandable that this condition significantly reduces a circle of families eligible to maternity (family) capital in this region. For his reason, comparative analysis of the amount of maternity (family) capital in the Kostroma region with its amounts in other Russian regions would be irrelevant.

The same concerns the Amur region where regional maternity (family) capital in the amount of RUB 270,500 is paid at third or subsequent childbirth (adoption) only to those families for which it is confirmed they need to improve their housing conditions.

It is also irrelevant to compare regional maternity (family) capital in the Kabardino-Balkar Republic, which amounts RUB 250,000, but may be paid only at fifth or subsequent childbirths, unlike similar payments in most regions.

Maternity (family) capital amounts to RUB 200,000 in the Khabarovsk region and RUB 150,000 both in the Komi Republic and the Sakhalin Region.

The most common amount of regional maternity (family) capital is RUB 100,000. It paid in 30 Russian constituent entities: the Karachay-Cherkessia Republic, the Republic of Kartelia,

[151] This comparative analysis only includes regions for which birth order data are available not only for 2011–2012, but also for 2006–2007.

the Republic of Sakha (Yakutia), the Republic of Khakassia and the Chuvash Republic, the Krasnodar, Krasnoyarsk, Perm, Stavropol, Vologda, Voronezh, Irkutsk, Kemerovo, Leningrad, Magadan, Moscow, Murmansk, Novosibirsk, Omsk, Orenburg, Orel, Pskov, Samara, Saratov, Sverdlovsk and Smolensk regions, the Khanty-Mansiysk Autonomous District – Yugra, the Chukotka Autonomous District, the Jewish Autonomous Region and Saint Petersburg. The Karachay-Cherkessia Republic provides this capital only starting from fourth childbirth.

Four other regions where maternity (family) capital also amounts to RUB 100,000 should be added to this list. However, they need special consideration.

The Novgorod region also grants regional maternity (family) capital in the amount of RUB 100,000. However, there are two circumstances which notably improve its demographic efficiency. Firstly, like in the Voronezh and Pskov regions, according to the Law "On Additional Measures of Social Support for Large Families Living in the Novgorod Region for 2011–2014" (Article 3), families become eligible to this capital at third and each (rather than "or") subsequent childbirth (adoption). Secondly, according to the same article of the Law, the amount of regional "Family" capital, as noted above, increases to RUB 200,000 provided that RUB 100,000 is allocated to improve housing conditions.

The Rostov region grants RUB 100,000 of regional maternity (family) capital at third or subsequent childbirth (adoption) only to low-income families, with average per capita income not exceeding the minimum subsistence level. The Tomsk region set this threshold at two minimum subsistence levels rather than one.

RUB 100,000 of maternity (family) capital is also to be paid to large families in the Tambov region at childbirth. But only those families are eligible to this capital at childbirth which has not received one-time payments to improve housing conditions or one-time monetary payment to acquire housing or a subsidy for loans raised to acquire construction materials and build a house.

Maternity (family) capital in the Kursk region amounts to RUB 75,000.

The following 21 regions set this capital at RUB 50,000: the Republic of Adygeya, the Republic of Altay, the Republic of Kalmykia, the Republic of Mari El, the Republic of North Ossetiya – Alaniya and the Republic of Tyva, the Altay and Zabaikal, Arkhangelsk, Astrakhan, Belgorod, Bryansk, Vladimir, Ivanovo, Kaluga, Lipetsk, Ryazan, Tver, Tula, Chelyabinsk and Yaroslavl regions. The Republic of Altay and the Republic of Mari El provide regional (family) capital at fourth or subsequent childbirth and the Republic of Tyva grants it at fifth and subsequent childbirths.

Five other regions have maternity (family) capital at the level below RUB 50,000: RUB 40,789 in the Volgograd region, RUB 30,000 both in the Primorsk and Tyumen regions, RUB 25,000 in each of the Kurgan and Nizhny Novgorod regions.

Regions, where the amount of regional maternity (family) capital differs subject to birth order, require special consideration.

The Ulyanovsk region provides regional maternity (family) capital of RUB 50,000 at second childbirth (adoption), RUB 100,000 at third childbirth (adoption), RUB 150,000 at fourth childbirth (adoption), RUB 200,000 at fifth childbirth (adoption), RUB 250,000 at sixth childbirth (adoption) and RUB 700,000 at seventh and subsequent childbirth (adoption).

The Kamchatka region grants regional maternity (family) capital at third or subsequent childbirth (adoption) in the following way: RUB 100,000 at third childbirth (adoption), RUB 150,000 at fourth childbirth (adoption), RUB 200,000 at fifth childbirth (adoption), RUB 250,000 at sixth or subsequent childbirth (adoption).

The Republic of Mordovia set regional maternity (family) capital of RUB 100,000 at third childbirth (adoption), RUB 120,000 at fourth childbirth (adoption) and RUB 150,000 at fifth and subsequent childbirth.

In the Kaliningrad Region, its amount is set at RUB 100,000 for third or fourth childbirth (adoption) and RUB 200,000 at fifth or subsequent childbirth (adoption). However, this payment is only intended for families with average per capita income not exceeding 3.5 minimum subsistence levels.

The Kirov Region provides regional maternity (family) capital of RUB 75,000 at third childbirth (adoption), RUB 125,000 at fourth childbirth (adoption) and RUB 200,000 at fifth and subsequent childbirth (adoption). It is granted in the form of one-time payment.

It exists as a one-time payment in the Republic of Adygeya and the Republic of Mari El, in the Zabaikal, Arkhangelsk, Vologda, Ivanovo, Kaluga, Kirov, Kurgan, Lipetsk, Samara, Tyumen and Yaroslavl regions and the Chukotka Autonomous District.

The Republic of Buryatia also grants maternity (family) capital as one-time cash payment. In addition, it is specifically intended to acquire housing (based on the price of 11 sq m per child).

Almost all regions make provisions for improvement of housing conditions and education for a child (children) as possible ways of spending maternity (family) capital. The third way of spending federal maternity (family) capital – to form a funded part of a mother's labour pension – is significantly less common in regions (the Republic of Mordovia, the Krasnoyarsk, Bryansk, Moscow, Novosibirsk, Omsk and Orenburg regions).

Apart from using maternity (family) capital to improve housing conditions, many Russian constituent entities provide for additional ways of spending these funds, related to housing redevelopment, such as repair works (the Republic of Sakha (Yakutia), the Perm, Belgorod, Vladimir, Kaliningrad, Magadan, Nizhny Novgorod, Ryazan, Samara and Ulyanovsk regions), gasification (the Perm, Vladimir, Leningrad, Nizhny Novgorod regions), engineering communications (the Ryazan region), water supply, water disposal, heating equipment installation (the Novgorod region).

The Leningrad Region urges families, for which it is confirmed they need to improve their housing conditions, to necessarily allocate maternity (family) capital to improve housing conditions.

Maternity (family) capital may be used for medical treatment (including health resort treatment) of a child (children) in the following regions: the Republic of Kalmykia, the Karachay-Cherkessia Republic, the Komi Republic, the Republic of Sakha (Yakutia) and the Republic of Khakassia, the Perm, Primorsk, Voronezh, Leningrad, Magadan, Nizhny Novgorod, Rostov, Saratov, Tomsk, Tula and Ulyanovsk regions, the Nenets Autonomous District and the Jewish Autonomous Region. The Kaliningrad, Samara, Sakhalin, Chelyabinsk, Khabarovsk regions, the Khanty-Mansiysk Autonomous District – Yugra and the Yamalo-Nenets Autonomous District permit the use of maternity (family) capital for financing medical treatment of both a child and his/her parents. The Novgorod region also provides for spending maternity (family) capital on paid medical care services. However, it is unclear whether this relates to a child (children) only or to parents as well.

The Stavropol, Orenburg and Samara regions and the Khanty-Mansiysk Autonomous District (Yugra) provide for using maternity (family) capital by parents to raise their education level; the Kaliningrad, Leningrad (in case of five and more children or a disabled child), Murmansk, Novosibirsk, Rostov, Samara and Krasnoyarsk regions, the Republic of Sakha (Yakutia) envisage vehicles acquisition, the Kaliningrad and Murmansk regions allow for acquiring durable goods; the Republic of Kalmykia and the Leningrad region provide for buying land plots; Saint Petersburg allows for summer cottage construction; the Republic of Sakha (Yakutia) envisages development of personal subsidiary economy; the Krasnoyarsk and Perm regions provide for supplying children with technical rehabilitation facilities; the Samara region allows for purchasing items required for baby care and development and the Amur Region provides for repayment of principal amount and interest payment under consumer loans (except for fines, fees and penalties).

Some regions allow for receiving one-time payment in the amount of part of regional maternity (family) capital: the Komi Republic (annually RUB 25,000), the Krasnoyarsk (annually up to RUB 12,000), Vladimir, Magadan (annually up to RUB 40,000), Orenburg (RUB 10,000) and Saratov (25% of the capital amount for consumer needs) regions.

Table A5.1. Average increase in total fertility rate at third and subsequent childbirths in 2012 vs 2011 by groups of regions with various amounts of regional maternity (family) capital[152]

Amount of regional maternity (family) capital (Roubles)	*Number of regions*	*Regions*	*Average increase in total fertility rate for third and subsequent childbirths in 2012 vs 2011*[153]
Over 100,000	6	the Komi Republic, the Khabarovsk, Novgorod and Sakhalin regions, the Nenets Autonomous District and the Yamalo-Nents Autonomous District	0.050
100,000	23	the Republic of Karelia, the Republic of Mordovia, the Republic of Sakha (Yakutia), the Republic of Khakassia, the Chuvash Republic, the Krasnoyarsk, Stavropol, Voronezh, Kaliningrad, Kemerovo, Leningrad, Moscow, Murmansk, Novosibirsk, Omsk, Orenburg, Orel, Pskov, Samara, Saratov and Sverdlovsk regions, the Jewish Autonomous Region and Saint Petersburg	0.035
from 50,000 to 100,000	15	the Republic of Adygeya and the Republic of Kalmykia, the Arkhangelsk, Astrakhan, Belgorod, Bryansk, Vladimir, Ivanovo, Kaluga, Kirov, Kursk, Lipetsk, Tula, Chelyabinsk and Yaroslavl regions	0.032
below 50,000	3	the Primorsk, Volgograd and Nizhny Novgorod regions	0.023
no regional maternity (family) capital	5	the Republic of Bashkortostan, the Republic of Dagestan, the Republic of Tatarstan, the Republic of Udmurtia, the Penza region	0.027

On the average, regions with higher regional maternity (family) capital recorded higher increases in total fertility rate at third and subsequent childbirths in 2012, as compared to the 2011 levels.

Needless to say, these data do not mean that it is the amount of regional maternity (family) capital that predetermined intergroup differences in average increases in total fertility rate at third and subsequent childbirths. It could be a driver behind this trend. However, we believe that a link between these differences and differences in the amount of regional maternity (family) capital may be considered as an argument supporting the idea that a significant increase in total fertility rate at third and other childbirths in 2012 as compared to the 2011 level is caused, among other reasons, by the fact that in 2012, most regions launched maternity (family) capital payments. As a rule, families become eligible to this capital after third or subsequent childbirths.

As noted above, the Yamalo-Nenets Autonomous District has the largest regional maternity (family) capital (RUB 350,000). In 2012, this region also saw the highest increase in total fertility rate at third and subsequent childbirths (0.079). In the Komi Republic, maternity

[152] Only those regions are taken into consideration for which data on birth order rate are available for 2011 and 2012.

[153] The average increase is calculated as an arithmetic mean of increases in regions allocated to a respective group.

(family) capital at third or subsequent childbirth is RUB 150,000 and an increase in fertility rate at third and subsequent childbirths significantly exceeds Russia's average level (0.059). In the Sakhalin region, maternity (family) capital is also equal to RUB 150,000. It is provided at second or subsequent childbirths rather than third or subsequent childbirths. In this regard, it is interesting to note that an increase in total fertility rate not only at third, but also at second childbirths was much higher than Russia's average level (0.067 vs 0.049).

The Novgorod region has RUB 100,000 regional maternity (family) capital, as noted above. However, this amount is increased to RUB 200,000 if the capital is allocated to improve housing conditions. In addition, families who gave birth to (adopted) third and each (rather than "or") subsequent child become eligible to this capital. Families are also encouraged not to delay childbirths as the term of regional maternity (family) capital only covers childbirths in this region by the end of 2014. The Novgorod region not only saw an increase in total fertility rate at third and subsequent childbirths that was higher that Russia's average level in 2012. Furthermore, for the first time over many decades, the total fertility rate for all childbirths appeared to be equal to Russia's average (formally, even slightly higher).

Regional maternity (family) capital is RUB 100,000 in almost all the remaining regions which in 2012 saw notably higher increases in total fertility rate than Russia's average level.

Since 2013, some regions have launched a monthly cash payment for third and subsequent child under three years old in the amount of the minimum subsistence level. According to a sociological survey held in 2013 in the Kaluga, Novgorod and Perm regions, it is the impact of this new measure that was ranked by women, who were pregnant or had third or subsequent childbirths in 2013, on the average, higher than that of other measures (scored 2.57 out of 5). The women polled ranked regional maternity (family) capital as the second measure (scored 2.43).[154]

This measure was also ranked the highest as a factor capable of impacting decision-making on third childbirth over the next three-four years (scored 3.15 out of 5). The measure that ranked second was an opportunity to go to a kindergarten without any problems (scored 3.09). The measure that ranked third was an opportunity to obtain a land plot for residential construction (scored 3.02).

What family policy measures may be recommended based on analysis of regional experience

Based on the analysis performed, the following family policy measures may be recommended.

It is necessary to provide for loans and beneficial loans for residential construction on the provided land plot for families with three and more children. This would help enhance efficiency of this measure, since the main (in fact, it may be the only one) negative aspect in the practice of providing families with three and more children with land plots for residential construction is the fact that they lack money to build a house on this land plot.

Furthermore, an opportunity should be considered whereby young families participating in housing support programmes could suspend bank payments during the maternity leave after second childbirth and families could be granted with an additional loan in the amount of remaining debt under housing loans at third childbirth.

An idea may be addressed to provide families after second childbirth with an opportunity of purchasing housing at cost and purchasing housing at cost under interest free mortgage for families after third childbirth.

[154] The survey was held as part of the research project "Assessment of Efficiency of Demographic Policy Measures Implemented at the Federal and Regional Levels" ordered by the Ministry of Labour and Social Security of the Russian Federation (the project is led by Professor Leonid Rybakovsky).

In this regard, we would like to point to what Vladimir Putin said in his State-of-the-Nation Address on 12 December 2013. "Today, housing construction must once again play a decisive part in encouraging population growth in Russia"[155].

[155] Putin V. V. *State-of-the-Nation Address* (12 December 2013). URL: http://www.kremlin.ru/news/19825.

Appendix 6. Differences between rural and urban areas

In the 21st century, rural population saw stronger fertility growth rates in Russia than urban people. In 2012, total fertility rate for rural population was 0.661 higher than in 2000, and 0.452 higher than for urban population. Speaking of a relative increase in this indicator for this period, differences between rural and urban areas are next to nil, 42.5% and 41.5%, respectively. In 2012, total fertility rate in rural areas was back to the level ensuring common population replacement, at 2.215.

Table A6.1. Total fertility rate for urban and rural population in Russia in 2000–2012

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Urban	1.089	1.124	1.189	1.223	1.253	1.207	1.210	1.294	1.372	1.415	1.439	1.442	1.541
Rural	1.554	1.564	1.633	1.666	1.654	1.576	1.601	1.798	1.912	1.941	1.983	2.056	2.215

An increase in total fertility rate has been stronger for rural population than for urban population only starting from 2007, i.e. during the period when additional measures of state support to families with children have been implemented.

In 2006, as compared to the 2000 level, total fertility rate in rural areas rose 0.047 and in urban settlements it gained 0.121. The relative increase amounted to 3.0% and 11.1%, respectively. Stronger growth of birth rates in urban areas during this period has reduced the gap between total fertility rates for rural and urban population from 0.465 in 2000 to 0.391 in 2006.

Since 2007, differences in trends of birth rates in urban and rural areas have changed significantly. As early as in 2007, i.e. during the first year, when measures of state support to families with children were launched, total fertility rate for rural population rose 0.197 (or 12.3%) and for urban population it gained 0.084 (or 6.9%). All in all, in 2007–2012, this indicator increased 0.614 (38.4%) in rural areas and 0.331 (27.4%) in urban areas.

This suggests that the implemented measures to support families with children have a relatively stronger impact on rural birth rates than on urban birth rates. This is also underscored by a trend in birth order.

Table A6.2. Total fertility rate by birth order for urban and rural population in Russia in 2006–2012 (35 regions[156])

Years	Urban population			Rural population		
	First	Second	Third and subsequent	First	Second	Third and subsequent
2006	0.727	0.378	0.096	0.810	0.490	0.272
2007	0.724	0.440	0.119	0.808	0.586	0.351
2008	0.749	0.480	0.135	0.840	0.606	0.395
2009	0.762	0.504	0.142	0.859	0.617	0.389
2010	0.740	0.535	0.152	0.867	0.643	0.398
2011	0.725	0.541	0.163	0.918	0.669	0.405
2012	0.754	0.585	0.189	0.965	0.738	0.448

[156] Only those regions are included in the calculation for which data on birth order are available for the entire period of 2006–2012.

Apart from a much stronger increase in fertility rates in recent years, rural population has two additional specific features as compared to urban population.

Firstly, rural areas, unlike urban settlements, have had a steady increase in total fertility rate at first childbirth starting from 2008 (it was especially notable in 2011–2012).

Secondly, after 2007, urban women continued to record older mothers at first childbirth (no increase in birth age in 2012 alone), while rural women have seen almost no increase in average age at second and third childbirth since 2009 (starting from 2010, the average mother age at second childbirth even slightly decreased). This could indirectly underscore that rural families more often than urban families are inclined to have shifts in their childbirth calendars as a result of implemented measures of state support to families with children.

Table A6.3. Average mothers' age at childbirth by birth order for urban and rural population in Russia in 2006–2012 (35 regions)

Years	Urban population			Rural population		
	First	Second	Third	First	Second	Third
2006	24.50	29.58	32.29	23.14	27.44	30.71
2007	24.65	29.71	32.34	23.18	27.60	30.99
2008.	24.79	29.85	32.50	23.25	27.76	31.14
2009	25.04	29.97	32.59	23.36	27.83	31.14
2010	25.30	30.07	32.72	23.51	27.80	31.26
2011	25.45	30.17	32.82	23.49	27.77	31.25
2012	25.53	30.18	32.89	23.59	27.71	31.24

In 2012, the average age at second childbirth increased 0.47 year for urban women as compared to the 2007 level, while it rose only 0.11 year for rural women and at third childbirth this indicator grew by 0.55 and 0.25 year, respectively.

Appendix 7. February 2015 update. Looming demographic catastrophe and how to prevent it

Executive summary

Russia is currently experiencing a financial crisis, due to international sanctions coupled with a decline in oil prices. These are leading the economy to shrink, perhaps by as much as 5% or more in 2015. The length and consequences of this period of turmoil are unpredictable, but it will surely have a visible negative impact on crucial socio-demographic indicators. Recent demographic improvements have become one of the most important indicators of the overall success of domestic policy for Vladimir Putin. Fertility increases and mortality decline are regularly mentioned in the Presidential Addresses to the Federal Assembly.

Thus, in his 2014 Address President Putin praised Russian progress in overcoming depopulation, as well as its entering the group of countries with good (over 70 years) life expectancy according to the World Health Ranking. "Our demographic programs have proven to be effective, and we will continue to implement them," said the President, declaring 2015 the National Year for Combating Cardiovascular Diseases.

In the next few months, however, Russia risks facing a repetition of the 1990s' demographic problems once again – with a new wave of mortality increases and a new wave of fertility decline. Pressing economic issues are currently receiving much more attention from the Government; yet an effective anti-crisis strategy also requires paying attention to the seemingly "long-term" demographic problems.

Several threats to recent demographic gains have arrived with the crisis. As inflation is rising, more of Russia's population is falling into poverty – and risks of impoverishment have traditionally been the highest for families with many children. Even with the existing social support, the proportion of households with children among the households with income below the subsistence level is increasing. While in 2005 the ratio of poor households with and without children was 50/50, in 2013 it skewed to 64/36. The share of large families among the poor households has grown over 10 years by 2.8 times and reached 9% of all poor households in 2013.

In his 2012 pre-election article 'Building justice. Social policy for Russia' Vladimir Putin condemned and labeled unacceptable the situation when "childbirth brings a family to the brink of poverty. Our national goal for the next 3-4 years is to completely eliminate such a situation". This goal has not been fully achieved yet, and is further threatened by drastic budget cuts. As the resources available for families shrinks, the recent upturn in fertility rates for second and third children may be reversed. When combined with the rapidly declining numbers of women in active reproductive ages (20-29 years) Russia is almost certain to experience a precipitous decline in fertility.

In addition, a dramatic increase in the availability of alcohol is looming, reminiscent of the late 1990s. In 1998 Russia experienced a very serious financial crisis accompanied by a jump in inflation (by 84%) – however, the excise duty on spirits was increased only much more modestly, by 20%. As a result, during a single year the relative value of excise duty fell by one-third, leading to an dramatic cheapening of vodka and other spirits. Throughout the early 2000s this fall stayed uncompensated for, and the increases in vodka excise taxes frequently lagged behind the inflation rate. This caused an enormous increase in mortality in 1998-2005, when Russia "additionally" lost about two million lives. Today the recurrence of a mortality jump due to various initiatives on liberalizing the alcohol market is, unfortunately, a highly probable scenario. The Government has cancelled an earlier-planned increase in the spirits excise tax, which – given the high and rising rate of inflation – actually means their remarkable decline. The minimum price of vodka has been significantly reduced since February 1. Beer is supposed to return to sidewalk kiosks, the bans on alcohol advertising in mass media and on alcohol sales

overnight are to be virtually lifted, etc. As a result, Russia may face a new round of population decline after all the recent claims of demographic victories. Even more sadly, this decline will probably be written off as the consequences of the economic difficulties, while in reality a new wave of depopulation could be averted – or, at least, substantially mitigated – by carefully designed and well-targeted social c policy interventions (many of which are purely legislative and would not put any additional strain upon the budget). A new series of calculations performed by a team of researchers from the Russian Presidential Academy of National Economy and Public Administration (RANEPA), the National Research University Higher School of Economics, the Russian Academy of Sciences, and the Moscow State University demonstrates that "alcohol liberalization" coupled with the absence of a new set of effective family policies may provoke a new demographic collapse with catastrophic consequences. In order to avert this disastrous scenario, appropriate measures must be taken immediately.

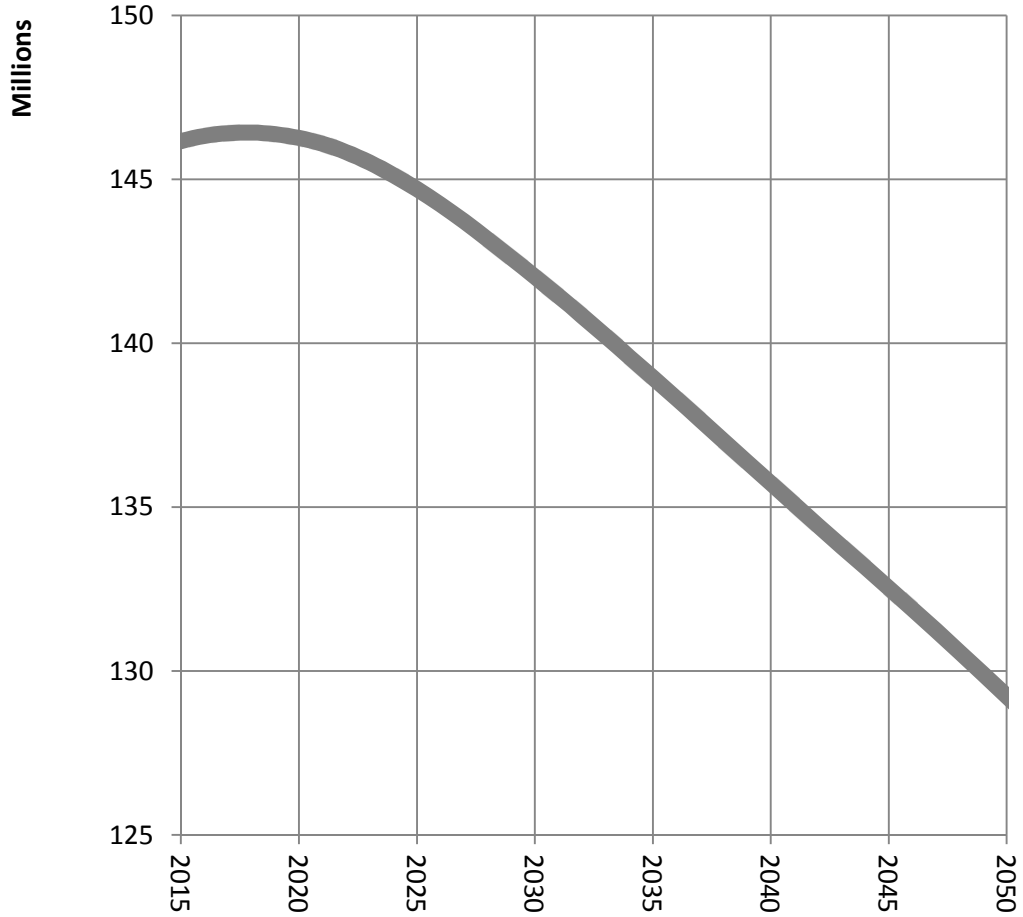
A7.1. The demographic situation in early 2015

The results presented below are based on a new series of forecast estimates made in early 2015 on the basis of the most recent data on mortality and fertility, applying the same method that was used for mathematical modeling of scenarios in the main text of the Report[157].

Fig. A7.1 presents our population projections for Russia up to 2050 based on the inertial forecast scenario – *i.e.*, with fertility and mortality rates held constant at their 2012 values, and with stable migration inflow at 300 thousand annually (the average rate of immigration in Russia according to the results of the National Population Census 2010). If the current rates of fertility, mortality and migration remain unchanged, Russian population is bound to decrease to 135–136 million by 2040 and to less than 130 million by 2050. At first the population decline will be relatively slow, but it will speed up after 2025, as more women of the 1990s' "demographic collapse" generation enter childbearing ages (Fig. A7.1):

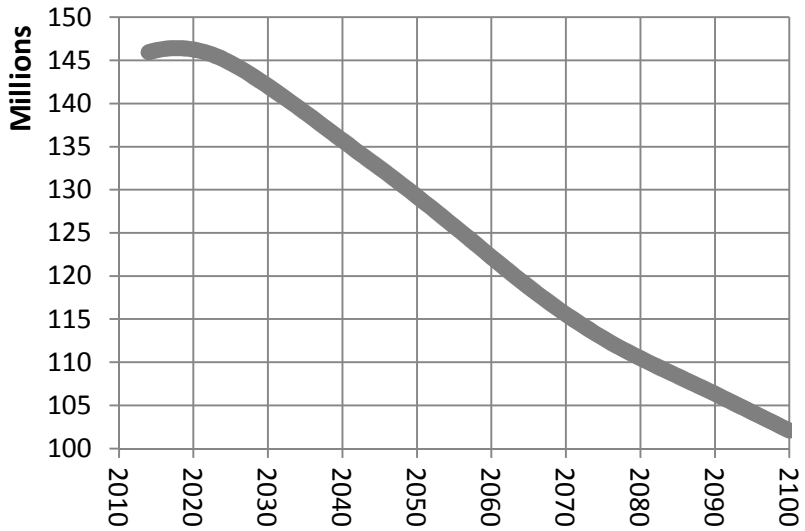
[157] Коротаев А. В., Халтурина Д. А., Малков А. С., Божевольнов Ю. В., Кобзева С. В., Зинькина Ю. В. *Законы истории. Математическое моаделирование и прогнозирование мирового и регионального развития*. 3-е изд., испр. и доп. М.: ЛКИ/URSS, 2010. С. 227–265; Коротаев А. В., Халтурина Д. А., Божевольнов Ю. В. 2011. Математическое моделирование и прогнозирование демографического будущего России: пять сценариев. *Сценарий и перспектива развития России* / Ред. В. А. Садовничий, А. А. Акаев, А. В. Коротаев, Г. Г. Малинецкий. М.: Ленанд/URSS, 2011; Коротаев А. В., Божевольнов Ю. В. Сценарии демографического будущего России // *Моделирование и прогнозирование глобального, регионального и национального развития* / Отв. ред. А. А. Акаев, А. В. Коротаев, Г. Г. Малинецкий, С. Ю. Малков. М.: Либроком/URSS, 2012. С. 436–461; Садовничий В. А., Акаев А. А., Коротаев А. В., Малков С. Ю. *Комплексное моделирование и прогнозирование развития стран БРИКС в контексте мировой динамики*. М.: Наука, 2014. С. 234–244; Архангельский В. Н., Божевольнов Ю. В., Голдстоун Д., Зверева Н. В., Зинькина Ю. В., Коротаев А. В., Малков А. С., Рыбальченко С. И., Рязанцев С. В., Стек Ф., Халтурина Д. А., Шульгин С. Г., Юрьев Е. Л. *Через 10 лет будет поздно. Демографическая политика Российской Федерации: вызовы и сценарии*. М.: Институт научно-общественной экспертизы – РАНХиГС при Президенте РФ – Рабочая группа «Семейная политика и детство» Экспертного совета при Правительстве РФ, 2014, С. 28–40; Коротаев А. В., Зинькина Ю. В., Божевольнов Ю. В. 2014. Математическое моделирование демографического будущего стран БРИК. Россия. *Комплексный системный анализ, математическое моделирование и прогнозирование развития стран БРИКС. Предварительные результаты* / Отв. ред. А. А. Акаев, А. В. Коротаев, С. Ю. Малков. М.: Красанд/URSS, 2014. С. 189–207.

Fig. A7.1. Population projection for Russia up to 2050 based on the inertial forecast scenario, millions



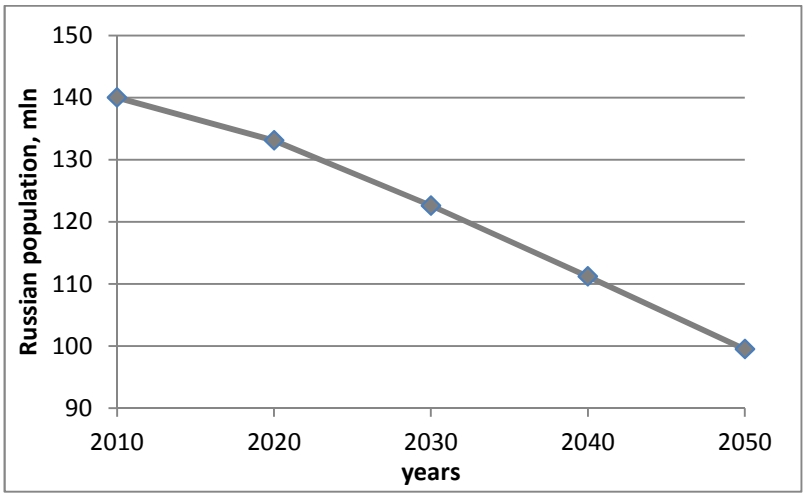
The inertial scenario looks even grimmer when extrapolated up to 2100 (Fig. 7.2):

Fig. A7.2. Population projection for Russia up to 2100 based on the inertial forecast scenario, millions



However the picture is still not that bad compared to our first inertial forecast scenario, which we calculated in 2009 on the basis of mortality and fertility rates of mid-2000s[158]. Indeed, according to that inertial forecast Russia's population was to plunge to 111.2 million by 2040 and to 99.5 million by 2050 (Fig. A7.3):

Fig. A7.3. Population projection for Russia up to 2050, millions. Based on the inertial forecast scenario with mid-2000s' fertility and mortality rates



Source: Korotayev A.V., Khaltourina D.A., Malkov A.S., Bozhevolnov Yu.V., Kobzeva S.V., Zinkina J.V. Mathematical modeling and forecasting of global and regional development. 3rd revised ed. Moscow: LKI / URSS (in Russian), 2010. P. 248, Fig. 6.6.

Thus, the latest inertial forecast projects Russia's population to be 24.5 million higher in 2040 and 29.7 million higher in 2050 as compared to the first inertial forecast scenario. This higher

[158] See, *e.g.*: Коротаев А. В., Халтурина Д. А., Малков А. С., Божевольнов Ю. В., Кобзева С. В., Зинькина Ю. В. 2010. *Законы истории. Математическое моделирование и прогнозирование мирового и регионального развития*. 3-е изд., испр. и доп. М.: ЛКИ/URSS, с. 227–265; Коротаев А. В., Халтурина Д. А., Божевольнов Ю. В. 2011. Математическое моделирование и прогнозирование демографического будущего России: пять сценариев. *Сценарий и перспектива развития России* / Ред. В. А. Садовничий, А. А. Акаев, А. В. Коротаев, Г. Г. Малинецкий. М.: Ленанд/URSS.

trajectory should partially be attributed to annual net migration being revised from 186 to 300 thousand, however, its role is relatively modest. The main contribution to the difference between the two scenarios is made by very significant progress that Russia made in both fertility increase since 2006, and mortality reduction since 2005.

As mentioned in the main report, in 2007–2012 Russia enjoyed a very impressive TFR increase, from 1.3 to 1.691 children per woman (up by 30%), which was the fastest growth in Europe and the second fastest in the world. Russia moved up from 35th to 12th place in Europe in terms of TFR. In absolute terms, the number of births in 2012 was 1.902 million, exceeding the numbers of 2006 by 422 thousand children (or 28%). The crude birth rate for the period increased from 10.3 to 13.3 per 1000.

A7.2. Forthcoming demographic catastrophe "Alco-pessimistic scenario"

The progress in mortality reduction achieved in our country since 2005 is quite significant. In 2005 – 2013 mortality went down from 2.304 million[159] to 1.872 million deaths per year[160] (by 432 thousand deaths per year). The reduction of alcohol poisoning-related deaths was particularly significant: the number of lethal intoxications fell from 36,000 in 2005 to 6,700 in 2014[161].

The crude death rate fell from 16.1 per thousand to 13.1 per thousand (by 19‰). It was the best performance not only in Europe, but among all the high and middle income countries of the world.[162] Mortality reduction was achieved almost exclusively due to an increase in life expectancy in Russia, from 65.5 to 70.5 years (by 5 years) in 2005–2012, which was again the best result among all the countries of Europe, America, and Asia[163]. Male life expectancy increased by almost 6 years.[164] The standardized mortality rate among working-age males decreased from 466.8 to 334.3 (almost by 30%)[165], again the best dynamics among all the high and middle income countries.[166]

These impressive results were achieved mainly through a reduction in the number of alcohol-related deaths, which had hugely contributed to mortality in the mid-2000s, before the first set of effective anti-alcohol measures was introduced in 2006. Alcohol produced excessive mortality in Russia in a variety of ways, of which fatal alcohol poisonings formed only a small proportion. In the mid-2000s in Russia 19% of all deaths caused by cardiovascular diseases (including heart attacks and strokes), 68% of deaths from liver cirrhosis, 60% deaths from

[159] *Демографический ежегодник России. 2013. Статистический сборник.* М.: Росстат, 2013. Табл. 2.1.

[160] *Рождаемость, смертность и естественный прирост, регламентная таблица Росстата*. http://www.gks.ru/free_doc/new_site/population/demo/demo21.xls. Цит. 29.11.2014.

[161] http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/publications/ catalog/doc_1140086922125

[162] World Bank. *World Development Indicators Online*. Washington, DC: World Bank, 2014. http://data.worldbank.org/indicator/SP.DYN.CDRT.IN. Cited on 30.11.2014.

[163] World Bank. *World Development Indicators Online*. Washington, DC: World Bank, 2014. http://data.worldbank.org/indicator/SP.DYN.LE00.IN. Cited on 30.11.2014.

[164] *Демографический ежегодник России. 2013. Статистический сборник*. М.: Росстат, 2013. Табл. 2.9.

[165] We use the World Bank indicator of Adult Male Mortality Rate (per 1000 male adults), which is essentially a standardized mortality coefficient for working-age males. It shows how many 15-year old males are bound to die before reaching age 60 if current age-specific mortality rates persist. It reflects much better the situation with mortality in this age-gender group in comparison with the number of deaths per 1,000 working-age men, since the latter figure is too dependent on the age structure. The values of the standardized mortality rate among working-age men in Russia for the period up to 2010 (inclusive) has been taken by us from the World Bank database (World Bank. World Development Indicators Online. Washington, DC: World Bank, 2014. http://data.worldbank.org/indicator/SP.DYN.AMRT.MA. Cited on 30.01.2015); as regards the values for 2011 and 2012, we have calculated them ourselves on the basis of the data on the age-specific mortality coefficients published un the Russian Fertility and Mortality database (RusFMD) prepared by the New Economic School in Moscow (http://demogr.nes.ru/en/demogr_indicat/data).

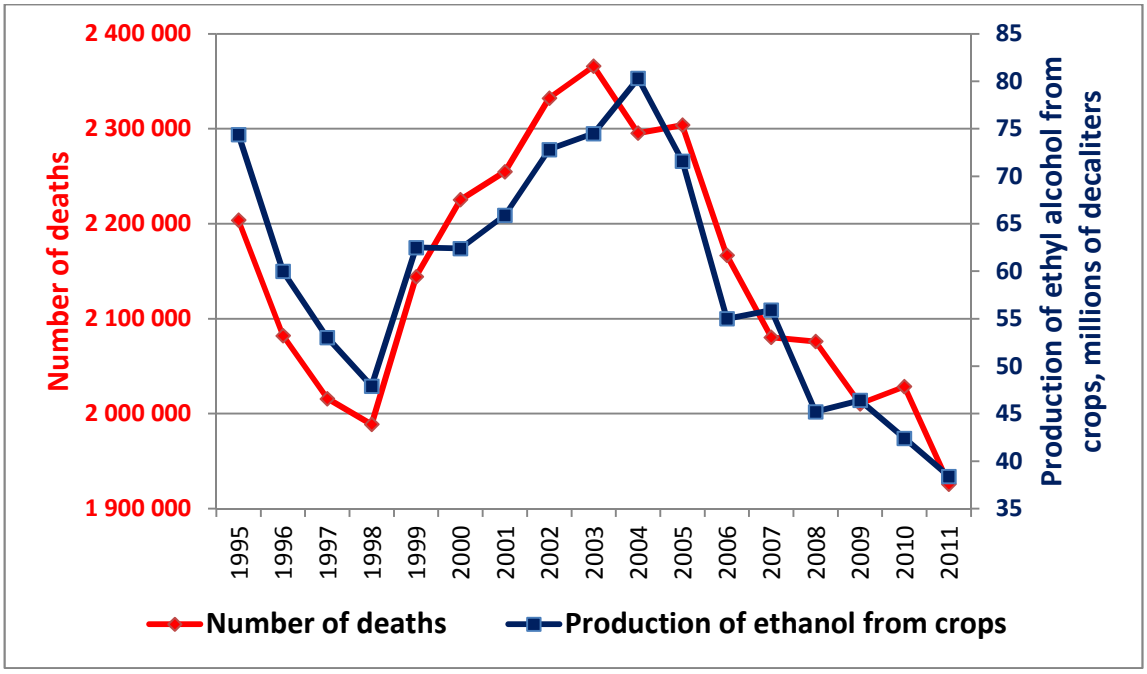
[166] World Bank. *World Development Indicators Online*. Washington, DC: World Bank, 2014. http://data.worldbank.org/indicator/SP.DYN.AMRT.MA. Cited on 20.01.2015.

pancreatitis[167], and 61% of deaths from all external causes, including 67% of murders and 50% of suicides[168], were associated with alcohol. A large proportion of deaths from pneumonia and tuberculosis are also alcohol-related[169] because the alcohol abusers are more likely to contract infectious diseases and less likely to get proper treatment. In 1998–1999 in the city of Izhevsk 62% of males who died in the ages between 20 and 55 had high blood alcohol content.[170] According to a large study conducted in the city of Barnaul in 1990-2004, 68% of men and 61% of women who died at the age of 15-34, as well as 60% of men and 53% of women who died at 35-69, had high blood alcohol content.[171]

It is noteworthy that the mortality decrease in Russia after 2005 is very similar in its structure to the decline during Gorbachev's anti-alcohol campaign of the 1980s.[172]

In general, research demonstrates an extremely close relationship between the production of ethyl alcohol from crops and mortality in Russia. A significant increase in production (and consumption) of alcohol leads to an immediate, significant increase in mortality – and vice versa (Fig. A7.4 and A7.5):

Fig. A7.4. Production of ethyl alcohol from crops and number of deaths in Russia[173]



[167] Немцов А. В. *Алкогольный урон регионов России*. М.: NALEX, 2003.

[168] Немцов А.В. *Алкогольный урон регионов России*. М.: NALEX, 2003; он же. *Алкогольная история России: Новейший период*. М.: ЛИБРОКОМ/URSS, 2009.

[169] Сон И. М., Тен М. Б., Пронина Т. В. Особенности выявления и распространения туберкулеза среди различных социальных групп населения. *Медико-социальные проблемы социально обусловленных заболеваний* / Ред. В. И. Стародубов. М.: ЦНИИОЗ, 2004. С. 41−44.

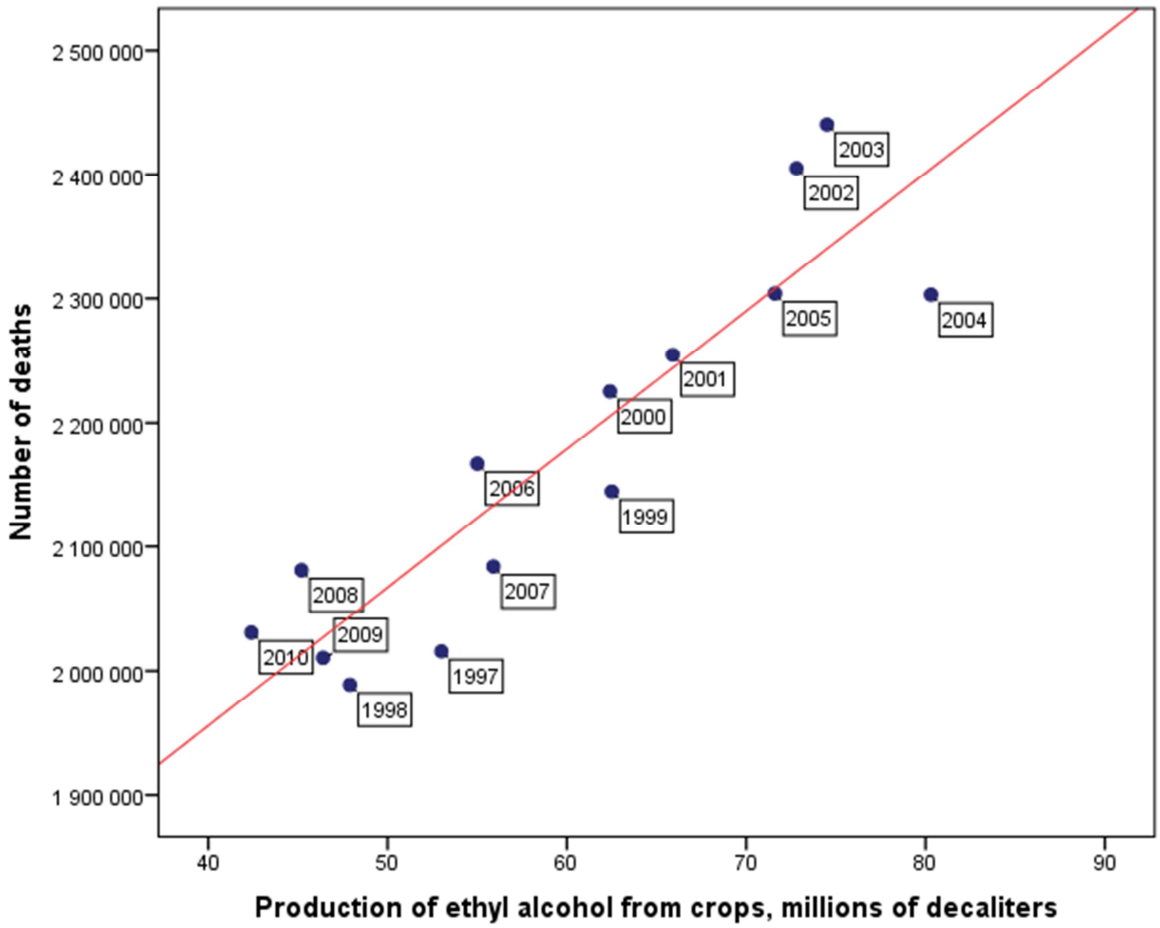
[170] *Политика по контролю кризисной смертности в переходный период* / Отв. ред. В. М. Школьников, В. В. Червяков. М.: ПРООН, 2000. С. 191.

[171] Zaridze D., Maximovitch D., Lazarev A., Igitov V., Boroda A., Boreham J., Boyle P., Peto R., Boffetta P. Alcohol poisoning is a main determinant of recent mortality trends in Russia: evidence from a detailed analysis of mortality statistics and autopsies. *International Journal of Epidemiology* 38/1 (2009): 142–153.

[172] Халтурина Д. А., Коротаев А. В. *Русский крест: факторы, механизмы и пути преодоления демографического кризиса в России*. М.: КомКнига/URSS, 2006; они же. Алкогольная катастрофа. Как остановить вымирание России? *Алкогольная катастрофа: Алкогольная катастрофа и потенциал алкогольной политики в снижении алкогольной сверхсмертности в России* / Отв. ред. Д. А. Халтурина, А. В. Коротаев. М.: УРСС, 2008.

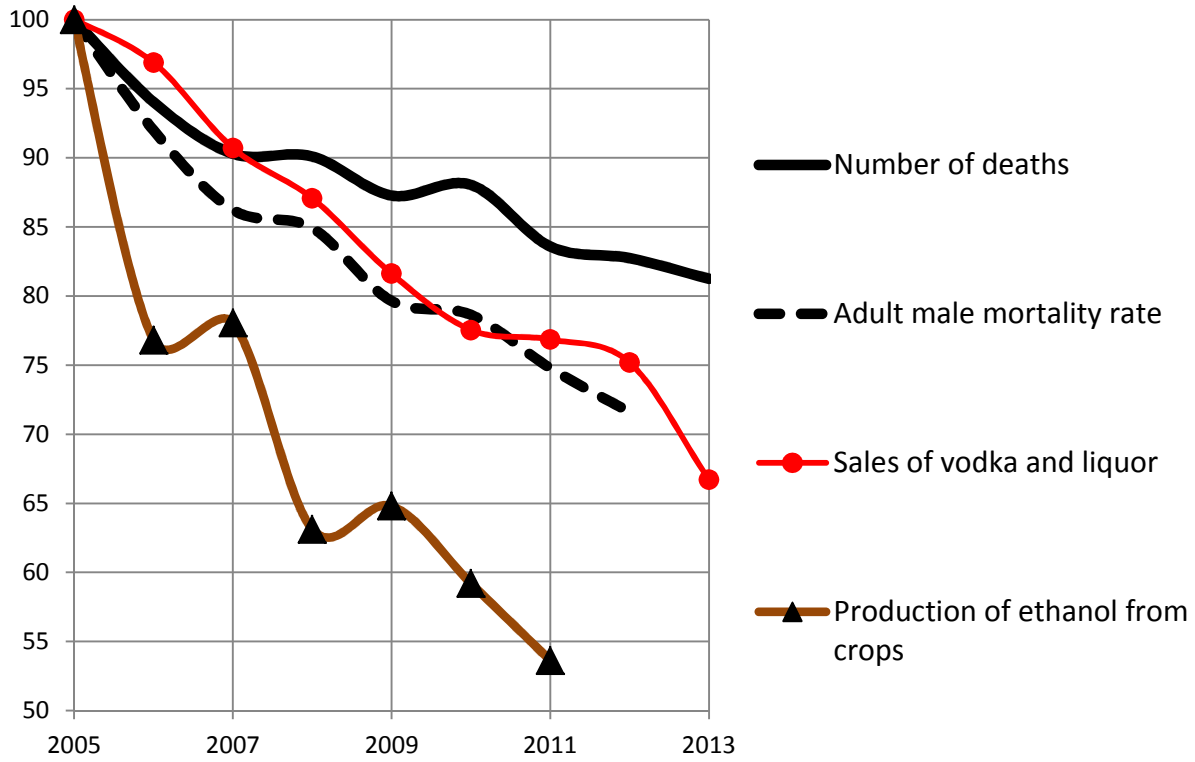
[173] *Source*: http://www.gks.ru.

Fig. A7.5. Correlation between production of ethyl alcohol from crops and the number of deaths in Russia, scatterplot with a fitted regression line



Let us provide some statistical characteristics of the correlation depicted in the last graph. Routinely, the Pearson correlation coefficient (r) is used as a standard measure of the strength of a correlation. In this case its value is greater than 0.9, which means that we are dealing with an extremely strong relationship. It is useful to square 0.9 in order to understand how close the relation is in this case. The square of 0.9 is 0.81 (*i.e.* 81%), which is the coefficient of determination (R^2). In fact, its value suggests that Russian mortality dynamics of the recent years was predominantly determined by the alcohol factor. Thus, we have a reason to maintain that the record mortality decline observed in Russia after 2005 was more than 80% determined by a reduction in alcohol consumption, *i.e.* by the effect of the measures aimed at restricting the availability of alcohol.

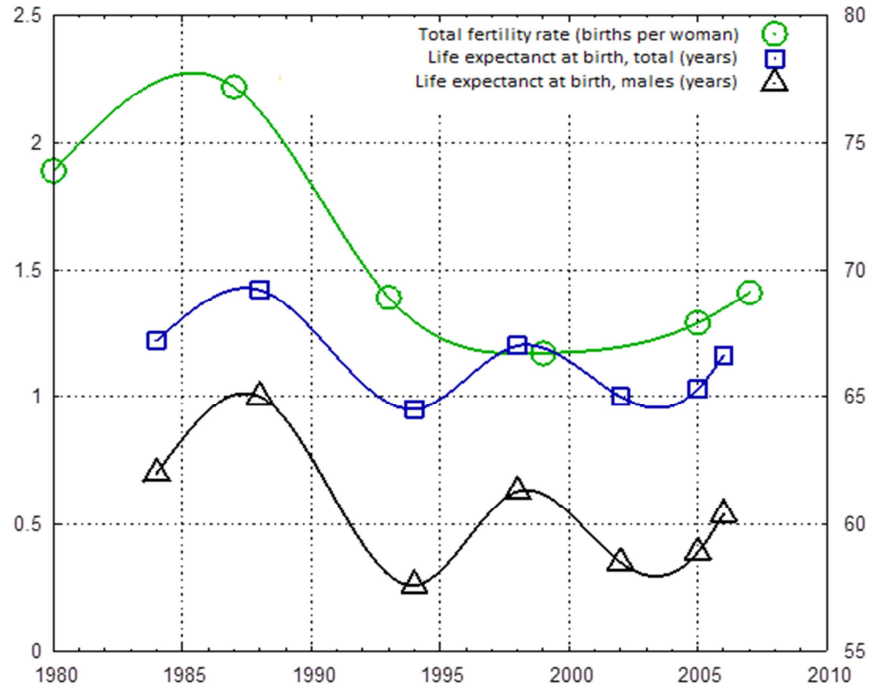
Fig. A7.6. Relative dynamics of mortality, production of ethyl alcohol from food raw materials, and sales of alcoholic beverages in Russia after 2005 (100 = level of 2005)



Thus, we have strong grounds to believe that Russia's impressive success in reducing mortality after 2005 was achieved mainly due to the state policy of limiting alcohol consumption. These policies were implemented in line with complex evidence-based anti-alcohol measures recommended by the World Health Organization, including higher prices and excise taxes on alcoholic beverages, as well as limitation of the spatial and temporal availability of alcohol. In addition, significant progress was achieved in reducing the consumption of illegal alcohol, marked by the dramatic reduction of alcohol poisonings, including lethal ones.

Yet Russia may lose all these achievements in the near future – if measures are not taken to prevent the looming threats engendered by the initiatives of the alcohol lobby. Hundreds of thousands of "additional" deaths may follow, especially among working-age males, if a return to the days of easy access to alcohol is not averted. Unfortunately, similar reversals have already occurred in recent Russian history: after some growth, fertility would collapse even below its pre-growth level, while significant mortality reduction would be followed by a catastrophic upsurge (Fig. A7.6):

Fig. A7.6. Dynamics of total fertility rate (births per woman) and life expectancy in Russia[174]. "Alcohol collapses" of the 1990s and early 2000s



Sources: Rosstat 2014; World Bank 2014; UNICEF 2004: 73.

The current situation bears a striking resemblance to the late 1990s. In the midst of an acute financial and economic crisis, the priority of demographic issues declines in favor of solving more immediately pressing financial and economic problems. Meanwhile, measures are adopted that have the effect of dramatically increasing the availability of alcohol. The situation is similar to 1998, when Russia experienced a financial crisis accompanied by a jump in inflation (by 84%) – *however, the excise duty on spirits was increased much more modestly, by 20%. As a result, during a single year the relative value of excise duty fell by one-third.* In 2000 the excise tax was increased slightly above the rate of inflation; during the next several years, its annual increase hovered around the inflation rate or slightly below it, so the huge fall of 1998 was left uncompensated for. This fall of the excise tax on vodka was followed by rising income and purchasing power of the population, which caused a huge increase in alcohol consumption (and, hence, mortality) in 1998–2005 leading to the loss of more than a million lives in Russia[175]. On the contrary, the 2008–2009 economic crisis was not accompanied in Russia by any mortality increase, as it occurred against the background of a strict anti-alcohol policy.

Notably, the acute crisis of the early 1990s led to a catastrophic increase in mortality only in the post-Soviet countries where a sharp increase in alcohol consumption was observed (accompanied by all kinds of the negative social phenomena, such as homicide, suicide, abandoned children etc.) while in the countries where alcohol consumption remained flat

[174] UNICEF. *Social monitoring "Innocenti"*. Florence: Innocenti Research Centre, 2004. C. 73; World Bank. *World Development Indicators Online*. Washington, DC: World Bank, 2013. http://data.worldbank.org/indicator. Accessed: January 09, 2015.

[175] See, *e.g.*, Treisman D. *Alcohol and Early Death in Russia: The political economy of self-destructive drinking*. Moscow: State University – Higher School of Economics, 2008. P. 9. Treisman D. Death and Prices: The political economy of Russia's alcohol crisis. *The Economics of Transition* 18/2 (2010): 296-297; Немцов А.В. *Алкогольная история России: Новейший период*. М.: ЛИБРОКОМ/URSS, 2009; Халтурина Д. А., Коротаев А. В. *Русский крест: факторы, механизмы и пути преодоления демографического кризиса в России*. М.: УРСС, 2006. С. 30. Халтурина Д. А., Коротаев А. В. Введение. Алкогольная катастрофа. Как остановить вымирание России? *Алкогольная катастрофа и потенциал алкогольной политики в снижении алкогольной сверхсмертности в России* / Ред. Д. А. Халтурина, А. В. Коротаев. М.: Издательство ЛКИ/УРСС, 2008. С. 28–29.

mortality did not increase (as well as the number of murders, suicides, abandoned children, etc.).[176] The current financial and economic crisis is occurring at a time when a set of measures aimed to increase the availability of alcohol has been planned or already taken, so hundreds of thousands of lives are now under a very serious threat. These measures include:

1. Freezing and actual reduction in excise taxes on alcoholic beverages. According to a recently passed law on changes in excise rates,[177] actual vodka prices are to be lowered in the next two years – instead of a formerly planned increase. According to the previous version of the Tax Code, excise taxes were to be increased from 500 to 600 roubles per liter of anhydrous ethanol. The increase was to come in force on January 1, 2015. However, a law passed in November 2014 annulled this planned increase and set the excise tax to continue at the previous level. With the rocketing inflation this means a substantial reduction in the actual excise tax.

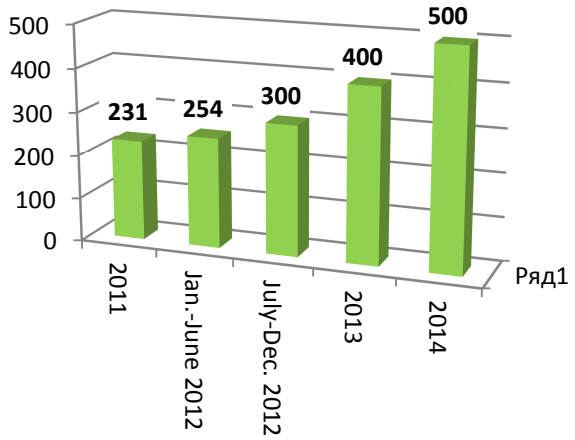
We should note here that the increase in excise duties on spirits in previous years led to a significant reduction in mortality, on the one hand, and to a simultaneous increase in budget revenues, on the other (see Fig. A7.7):

[176] Дёмин А., Коротаев А. В., Халтурина Д. А. *Злоупотребление алкоголем в Российской Федерации: социально-экономические последствия и меры противодействия. Доклад Общественной Палаты Российской Федерации*. М.: Общественная Палата Российской Федерации, 2009.

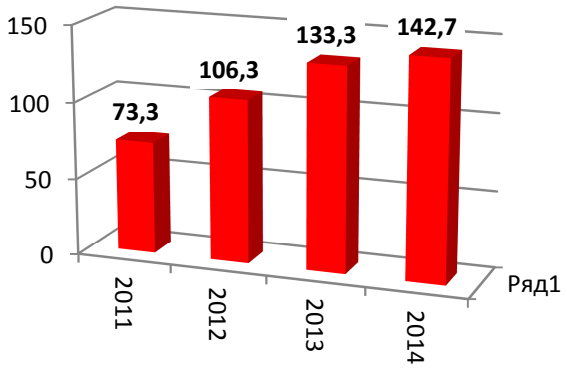
[177] Федеральный закон "О внесении изменений в часть вторую Налогового кодекса Российской Федерации и отдельные законодательные акты Российской Федерации" № 366-ФЗ от 24 ноября 2014 г.

Fig. A7.7. Dynamics of excise tax on spirits, budget revenues and mortality in 2011-2014

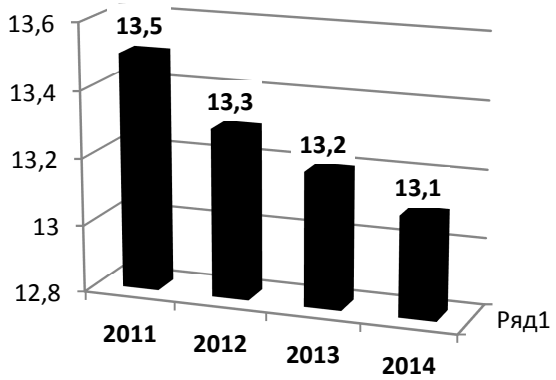
Excise duty on spirits, rubles per liter of ethanol



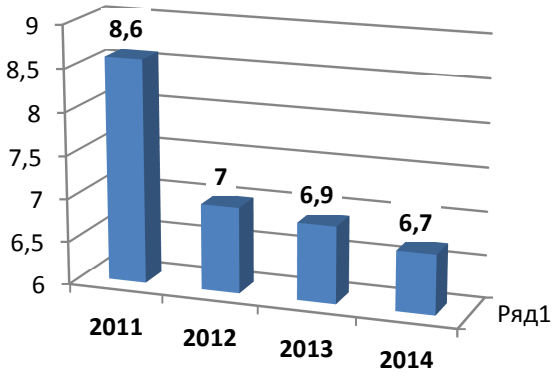
Budget revenues from excise taxes on spirits, billions of rubles



Deaths from all causes per 1,000



Deaths from alcohol poisoning, per 100,000



The prospects for raising excise taxes on alcohol are further threatened by a draft "Agreement on the Principles of tax policy in the field of excise duties on alcohol and tobacco products of the Eurasian Economic Union". This draft was designed to slowdown the increase of excise taxes on tobacco products, but it also has already led to a decrease in excise taxes on alcoholic beverages in Russia.

2. Reduction of the minimum vodka price. On December 29, 2014, the Rosalkogolregulirovanie (The Russian Alcohol Control Board) set the new minimum retail price (MRP) on strong alcohol (more than 28% alcohol content) to come in force on February 1, 2015.

For the first time in its whole history, MRP was decreased, not increased. The price for a 0.5-liter bottle of 40% vodka dropped from 220 rubles to 185 rubles (thus getting 16% cheaper).

3. Russia's capacity to implement independent anti-alcohol policy is being undermined. This threat arises from the draft agreement "On regulation of the alcohol market in the framework of the Eurasian Economic Union" which implies an actual loss of Russia's sovereignty in the issues related to alcohol policy regulation, which will lead to the "harmonization" of liquor prices with Belarus and Kazakhstan (where they are much lower) and, hence, to their further significant reduction, and, consequently, to the further growth of alcohol availability and mortality in Russia.

4. Alcohol 'liberalization' in Russian regions. Regional authorities now frequently try to sell alcohol for the longest possible hours under the pretext of combatting illegal sales. For example, last December, the Moscow Region Duma passed an amendment to the law limiting the hours of retail alcohol sales, expanding them to 08.00 – 23.00 from the previous 11:00 to 21:00.

5. Lifting spatial restrictions on alcohol sales. The Rosalkogolregulirovanie has put forward a law project which permits the sale of alcohol in some educational, medical and cultural institutions. The bill is already undergoing the process of inter-ministry coordination in the Government.

6. Lifting the ban on remote sales of alcoholic beverages. The Government is discussing lifting the ban on remote sales of alcohol, which will dramatically increase its spatial availability and may lead to mass violations in terms of alcohol sales to minors, as well as illegal alcohol sales in general.

7, Returning beer to kiosks. The Federal Antimonopoly Service (FAS) has proposed to lift the ban on selling beer in street stalls. The Ministry of Industry and Trade has created a working group to consider this proposal. Meanwhile, the prohibition of street beer sales played a key role in the recent reduction of alcohol consumption by Russian teenagers. The implementation of the FAS initiatives will lead to a new wave of alcohol availability to Russian youth.

8. Legalization of alcohol advertising on television. The State Duma of the Russian Federation has passed laws allowing beer advertising on TV (including the sport channels) and advertising of wine after 23.00, despite the fact that alcohol advertising is one of the most effective ways to accustom youths and adolescents to alcohol consumption.

PROJECTED EFFECTS OF STATE ALCOHOL POLICY RELAXATION

The calculations carried out by an expert group of the Russian Presidential Academy of National Economy and Public Administration (RANEPA), the National Research University Higher School of Economics (HSE), Russian Academy of Sciences, and Moscow State University have shown that the forthcoming full-scale relaxation of the state anti-alcohol policy may lead to a total of 5.5 million additional deaths by 2030 (see Fig. A7.8 and Table A7.1):

Fig. A7.8. Population projections for Russia under the "alcohol-pessimistic" and inertial forecast scenarios, millions, 2015–2030

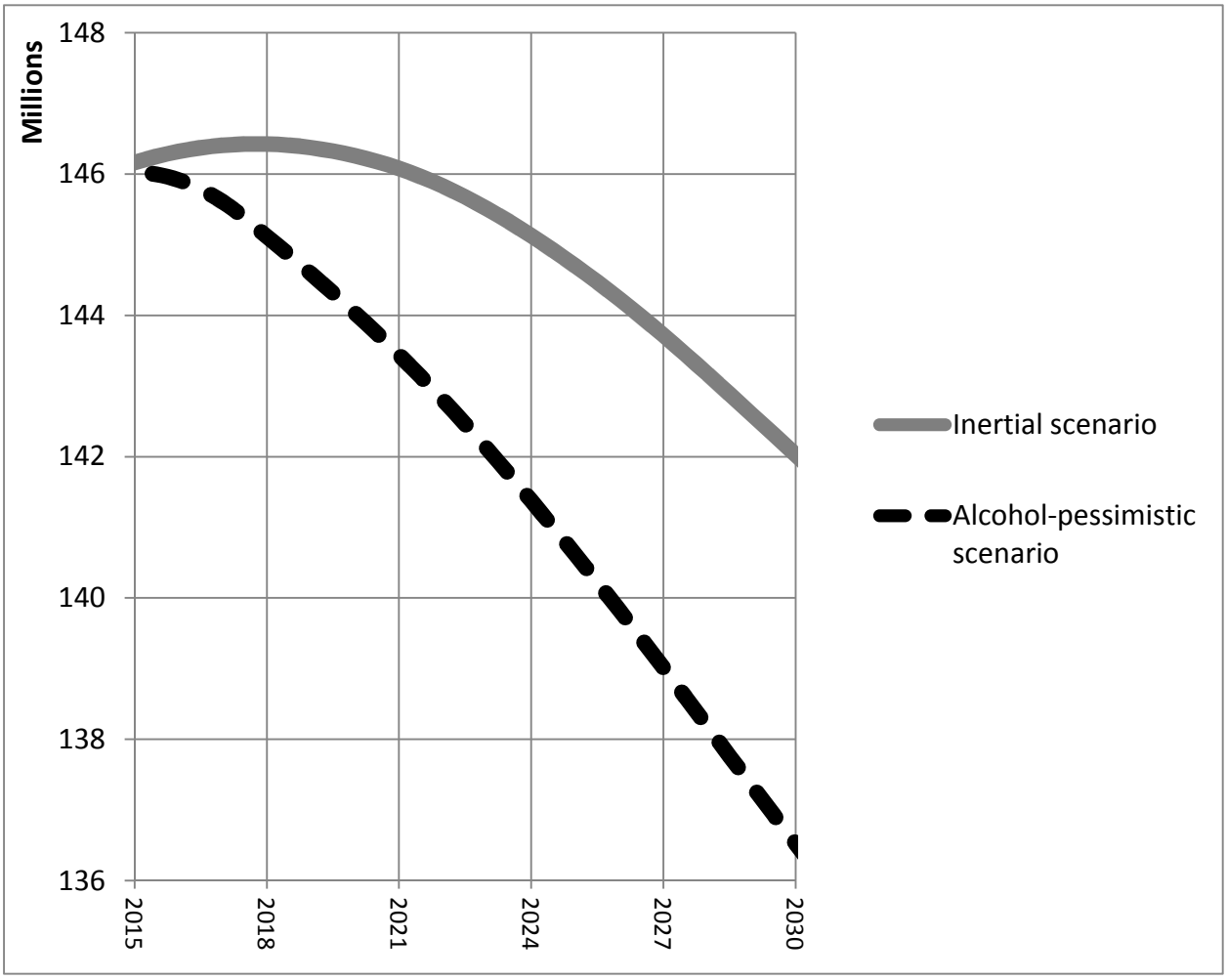
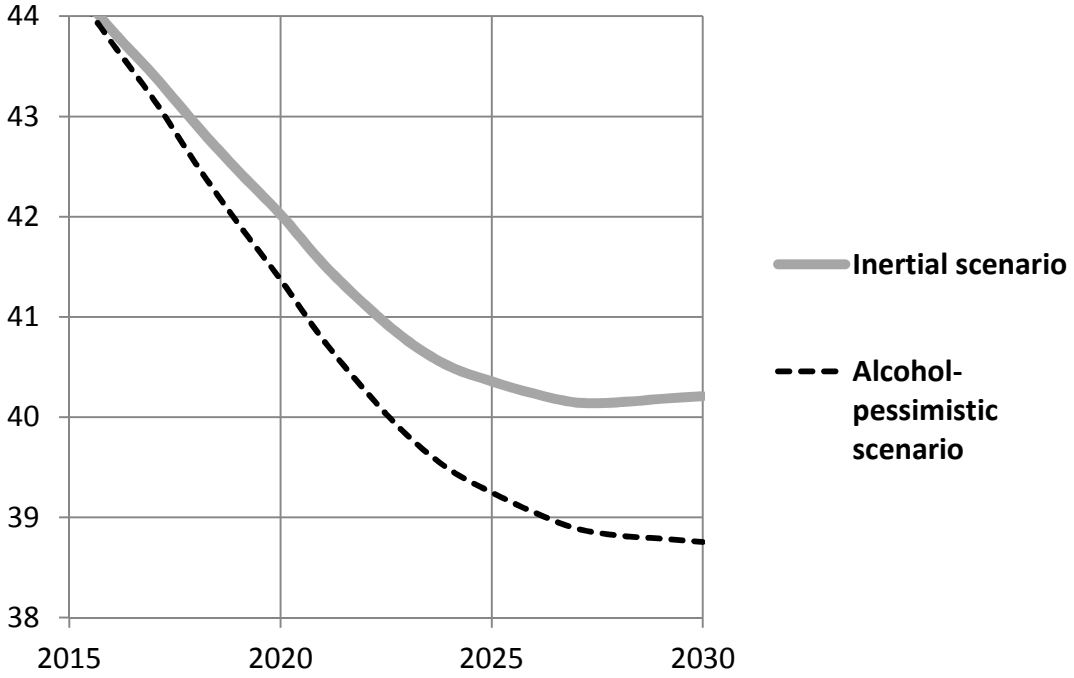


Table A7.1. Population projections for Russia under the "alcohol-pessimistic" and inertial forecast scenarios, millions, 2015–2030

Year	Projected population of Russia, mln		"Alcohol-pessimistic" scenario "price" in the number of "additional" deaths as compared to the inertial scenario
	Inertial scenario	Alcohol-pessimistic scenario	
2020	**146,3**	**144,0**	**2,3**
2030	**142,0**	**136,5**	**5,5**

The number of working-age males will be particularly affected (Fig. A7.9):

Fig. A7.9. Population projections for working-age males in Russia under the "alcohol-pessimistic" and inertial forecast scenarios, millions, 2015–2030



Thus, the changes in legislation proposed by the alcohol lobby may lead to a significant increase in alcohol consumption and thus to an increase in alcohol-related mortality, morbidity and social problems. Such consequences are extremely likely to seriously undermine Russian progress to goals set forth in the Presidential Decree #606 of May 7, 2012 "On measures for implementation of demographic policy of the Russian Federation", particularly as regards reaching the target value of 74 years of total life expectancy by 2018. Moreover, their overall demographic consequences for our country may be disastrous; so urgent measures must be taken to avert the upsurge of population loss.

A7.3. How to prevent a demographic catastrophe

Even if the pending "pro-alcohol" legislative initiatives are simply blocked, life expectancy will not go beyond the current value of 71 years. A simple preservation of the state anti-alcohol policy in itself will not suffice to increase the Russian life expectancies up to 74. For this, we need additional limitations on the availability of alcohol, both in time, in space, and economically. Price availability of alcohol must be seriously curbed. It would no longer suffice to return to the initially planned (starting from January 1, 2015) increase of the excise tax on spirits from 500 to 600 rubles178 (which was derailed by the alcohol lobby). Due to the dramatic inflation jump, the new law should raise the excises not to 600 rubles but at least up to 650 rubles. The ban on the sales of alcohol between 11 p.m. and 8 a.m. should be extended to a bigger time interval between 8 p.m. and 11 a.m. Banning morning alcohol sales has proved highly effective in Nordic countries as this blocks the opportunity to have a morning drink after a hangover (which may often lead to prolonged drinking bouts).

Sales of alcoholic beverages stronger than 15% are advised to be prohibited in department stores unless separated from other departments with a special entrance. This cuts

[178] Per liter of anhydrous ethanol.

down on spontaneous purchases, i.e. "once entering a shop to buy some bread, one is provoked to purchase some alcohol by seeing it exposed on the shelves»[179].

We should not exclude the possibility of returning to the state monopoly on retail sales of the strong drinks in Russia. This measure has proven to be a very effective tool for reducing alcohol problems and mortality in Sweden, Iceland, Norway, Finland, Canada, etc. In the USA 19 states also have some form of monopoly on the sale of liquor. In these states alcohol consumption is 14.5% lower for those aged 14-18, and the frequency of abuse of alcohol by this age group (intake of more than 70 g of ethanol at one time) is 16.7% lower than in the states without such a monopoly. There is a 9.3% lower alcohol-impaired driving death rate under age 21 in the monopoly states versus the non-monopoly states.[180] In the Scandinavian countries such a monopoly allows the sale of alcoholic beverages (usually stronger than 4.7-5%) only in state stores (except for bar service). In addition such a monopoly helps to fill the state budget. The monopoly countries enjoy higher revenue from the sale of alcoholic beverages then the non-monopoly countries with the same level of economic development.[181] A major advantage of the state monopoly on the retail sale of alcoholic beverages is that it minimizes the private interest in maximizing alcohol sales, which in this area often confronts the public interest. An employee of a store belonging to the state has no interest in selling alcohol to minors because his salary does not depend on the store's revenue – while the owner of a private shop may capitalize on it.[182]

International experience shows that to maximize health and longevity, national alcohol policy should be regulated by the social branch of the Government, as is done in the Scandinavian countries, not by the economic branch. The Ministry of Health, the Russian Federal Service for Surveillance on Consumer Rights Protection and Human Wellbeing (Rospotrebnadzor) and the Federal Service for Regulation of Alcohol Market (Rosalkogolregulirovanie) must take control over this policy to fight the alcohol black market.

THE WORST-CASE (PESSIMISTIC) SCENARIO

However, it is obvious that the alcohol-pessimistic inertial scenario is by no means the worst possible case. The worst ("pessimistic", "pessimal") demographic scenario will become actual only if a radical surge in mortality coincides with an avalanche-like collapse in fertility. Unfortunately, this scenario is not entirely improbable. First, a certain decline in crude birth rates is virtually inevitable in the Forthcoming decade due to the reduction in the number of women aged 20-29, who mother more than 60% of all births in Russia. This is given by Russia's age structure and the very small cohorts born in the 1990s who are now entering their prime child-bearing years. Second, most respondents explain their reluctance to have more children by referring to material difficulties and feeling uncertain about future.[183] Rising insecurity almost inevitably leads to a decrease in birth rates – this is particularly true for financial and economic crises (Fig. A7.10):

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[179] Дёмин А., Коротаев А. В., Халтурина Д. А. *Злоупотребление алкоголем в Российской Федерации: социально-экономические последствия и меры противодействия. Доклад Общественной Палаты Российской Федерации*. М.: Общественная Палата Российской Федерации, 2009. С. 47.

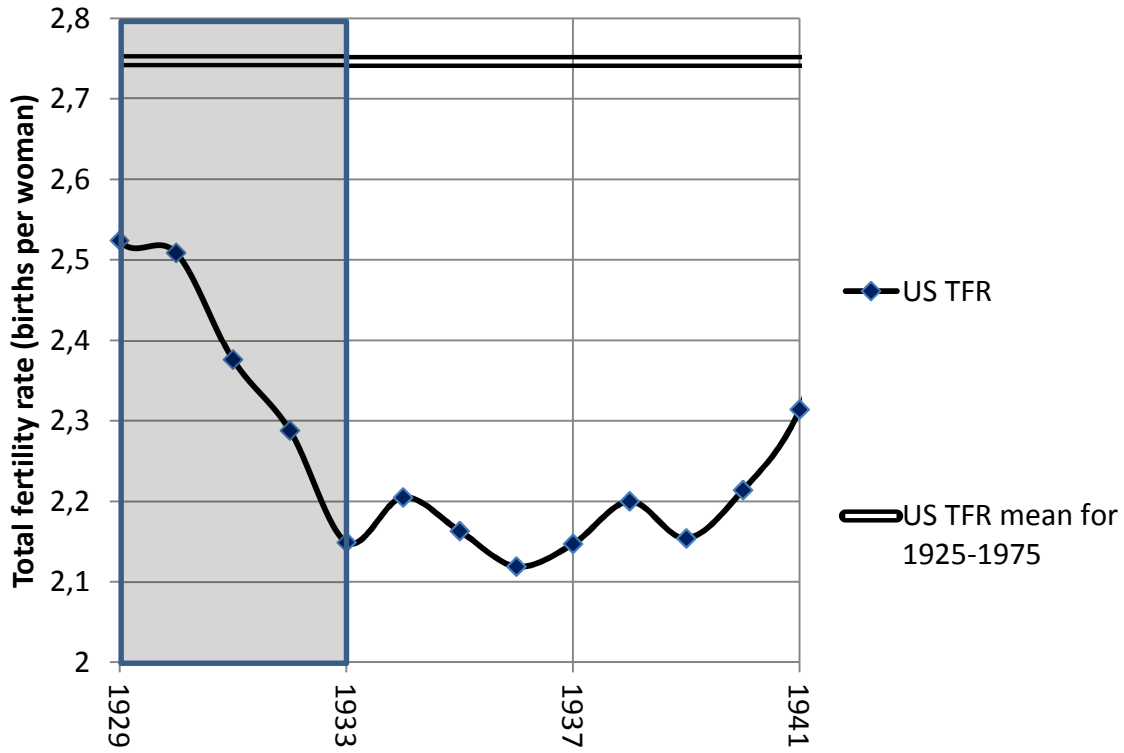
[180] Holder H. D. *Alcohol Monopolies and Public Health. Evidence from International Research.* Paper presented at the International Seminar on Alcohol Retail Monopolies. Stockholm, 27–29 August, 2007.

[181] Rehm N., Room R., Edwards G. *Алкоголь в Европейском регионе ВОЗ − потребление, вред и политика*. Копенгаген: Европейское региональное бюро ВОЗ, 2001.

[182] Угланд Т. Государственная монополия на алкоголь. *Алкогольная политика в России и Норвегии*. М. – Осло: SIRUS, 2000.

[183] Аналитический отчет по итогам выборочного наблюдения репродуктивных планов населения в 2012 году (опубликовано 24.01.2013г.). Росстат. http://www.gks.ru/wps/wcm/connect/rosstat_main/rosstat/ru/statistics/population/demography/. Дата обращения 20.01.2015.

Fig. A7.10. Birth rate slump in the United States during the Great Depression (1929-1933)[184]



The stimulating role of the maternal capital policy in boosting fertility is bound to decrease, as 97% of the families used to spend its benefits for improving their living conditions, which will become much harder during the current economic crisis. Strong measures are required to prevent a severe birthrate collapse. The financial and economic crisis of 2008–2009 in Russia did not drop the country's birthrate thanks to a set of strong and effective family policy measures launched before and during the crisis. The crises of the late 1980s – early 1990s and the late 1990s were accompanied by a decline in fertility because no such measures were taken. For example, on the eve of 1998 crisis fertility was already very low (1.24 children per woman) but during the crisis it dropped to an unprecedented level of 1.17 children per woman. In the late 1980s, as the starting point of fertility was already fairly high,[185], the decline in response to the economic distress of the early 1990s was much steeper. In fact, it collapsed so deep that the consequences of the "demographic hole of the 1990s" are still present (see above the main text of the report).

Most likely some decline in Russia's birth rate in 2015 is inevitable. The positive trend of recent years could be kept only if the proper measures had been introduced in 2014. For example there were about an additional 100 thousand newborns in 2012 due to the policies of free distribution of lands and allowances for the third child. If the maternal capital program is to be cancelled after 2016 (followed by cuts in other family support programs), the results will definitely be catastrophic demographically.

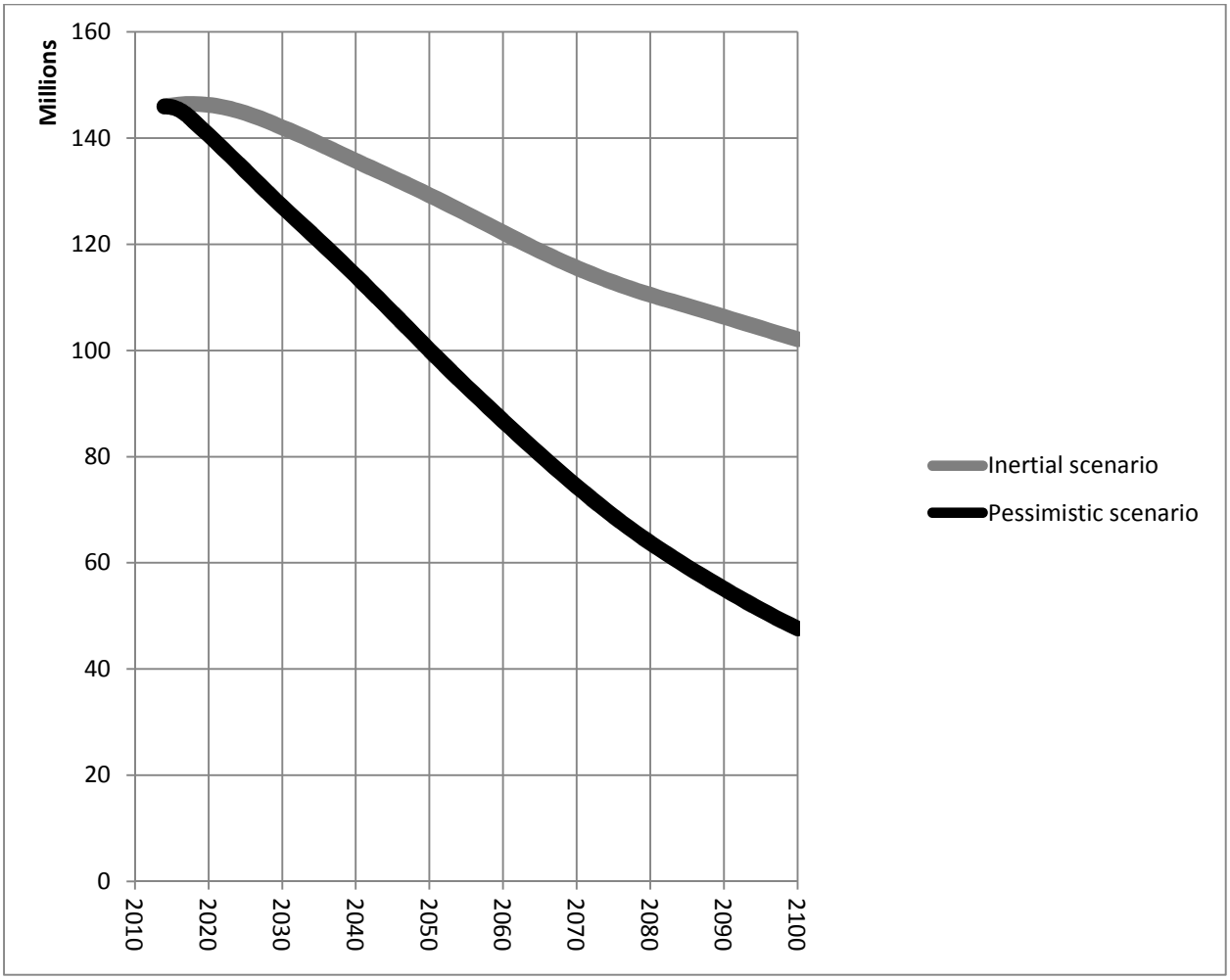
[184] *Data sources*: Campbell A. A., Clague A., Godley F., Rosenberg H. M. *Natality Statistics Analysis*. Washington, DC: U.S. Department of Health, Education, and Welfare, 1966 (National Center for Health Statistics Series 21/8). P. 4. World Bank. *World Development Indicators Online*. Washington, DC: World Bank, 2014. URL: http://data.worldbank.org/indicator/ SP.DYN.TFRT.IN. Cited on 30.11.2014.

[185] See, *e.g.*, Коротаев А. В., Халтурина Д. А., Малков А. С., Божевольнов Ю. В., Кобзева С. В., Зинькина Ю. В. *Законы истории. Математическое моделирование и прогнозирование мирового и регионального развития*. 3-е изд., испр. и доп. М.: ЛКИ/URSS; Коротаев А. В., Халтурина Д. А., Божевольнов Ю. В. 2011. Математическое моделирование и прогнозирование демографического будущего России: пять сценариев. *Сценарий и перспектива развития России* / Ред. В. А. Садовничий, А. А. Акаев, А. В. Коротаев, Г. Г. Малинецкий. М.: Ленанд/URSS, 2010. С. 196–219.

The 'most pessimistic' scenario presents the population projections in a situation when a victory of the alcohol and tobacco lobby is combined with cuts in the family support programs, leading to a retreat to the worse values of mortality and fertility of the mid-2000s.

The results of the calculation of this scenario are as follows (Fig. A7.11):

Fig. A7.11. Pessimistic and inertial scenarios of the Russian population dynamics for the period till 2100, millions



Thus, if no strategic priority is given to socio-demographic policy, this result may well lead to the end of Russia's geopolitical career by the end of the century.

POSSIBLE DEMOGRAPHIC EFFECT OF A FULL-SCALE FAMILY POLICY CONSUMING NOT LESS THAN 3% OF GDP

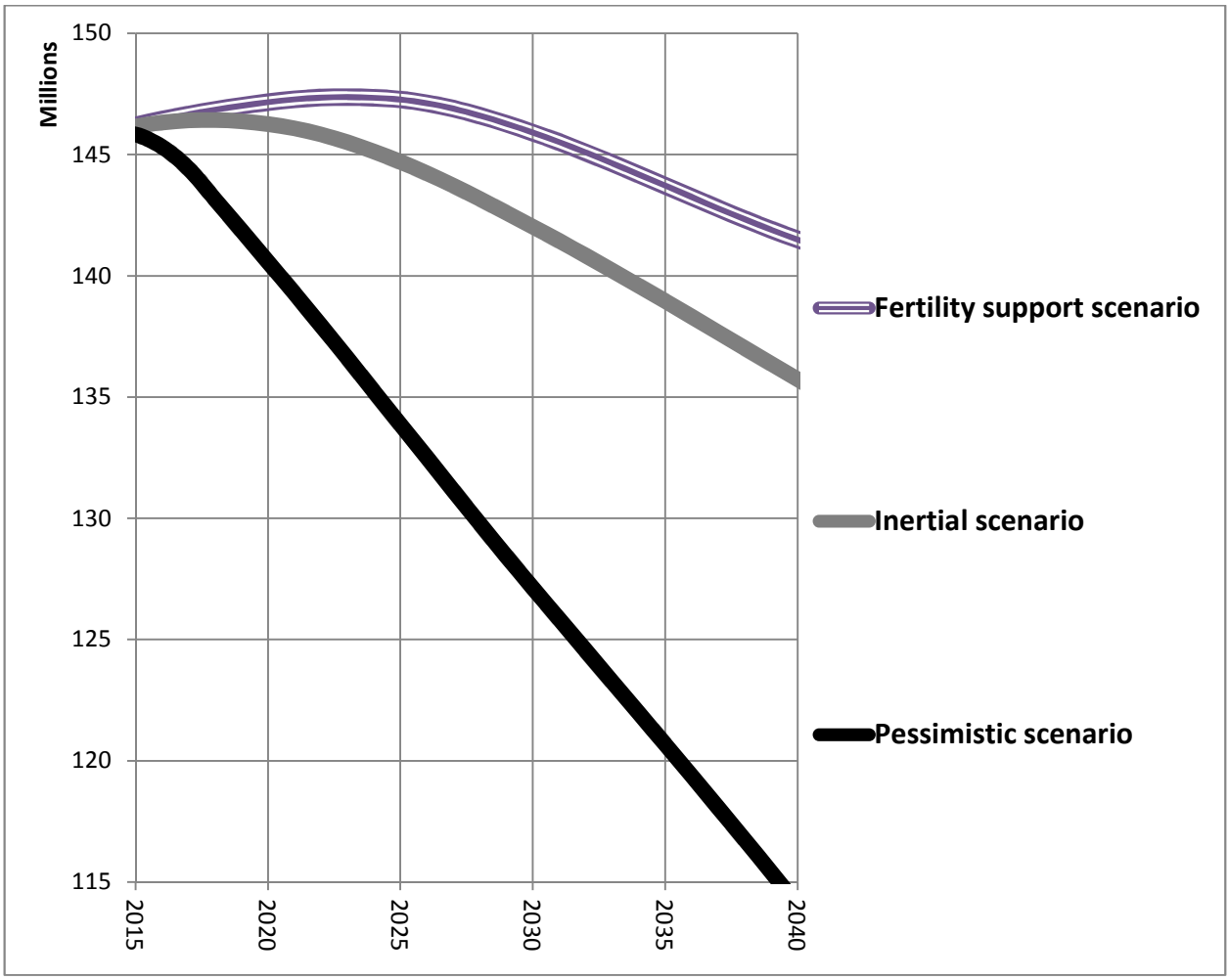
It is also possible to model the effect of developing a high-priority demographic policy structure that would aim to reach west European levels of fertility, closer to the replacement rate of two children per woman. This effect was modeled by a smooth (for 10 years) transition of age-specific fertility rates by 2020 in Russia to the level of France in 2012 (corresponding to TFR = 2.0), while preserving Russia's age-specific mortality at the level of 2012.

According to international studies and best practice, the most effective measures to improve fertility include a combination of allowances, tax benefits, programs and legislation supporting parents in combining parenting and employment, including access to kindergartens, nurseries, nannies and flexible schedules for employees with family responsibilities. During a crisis the measures stimulating economic activity of parents may be more effective in boosting fertility than cash transfers. An effective system of care for children is also one of the most effective policy measures to support the birth rate. Of all the types of expenditures in OECD the

costs of services for child care (namely kindergartens, nursery nurses and payment) correlate the best with the level of fertility. It is extremely important for the child care system to develop a network of services for the care of the youngest children (under 3 years). Comparative analysis shows that all of the most demographically successful countries in Europe have built a wide covering system of free or subsidized services for the care of children under 3 years old. Russia does not have enough kindergartens and the youngest children are not a priority group. Only 58% of Russian children under 6 had access to preschool education facilities in contrast with 90% in France. A set of housing support measures such as subsidized rental housing for young and large families, development of housing and savings cooperatives, as well as substantial subsidies of mortgage rates for families with children may also improve fertility.

The corresponding "high demographic priority" forecast of population of the Russian Federation (as compared to the inertial scenario) is as follows (Fig. A7.12).

Fig. A7.12. Scenario of full-scale measures of fertility support in comparison with the inertial and pessimistic scenarios for the Russian population dynamics, millions, 2015–2050



As we can see, measures to support the birth rates can give a significant long-term demographic effect (especially if we can prevent the growth of mortality in our country), but these measures alone are insufficient to prevent Russian depopulation, due to Russia's still-high levels of mortality.

POTENTIAL EFFECT OF THE ANTI-ALCOHOL POLICY

If a full-scale alcohol control policy is consistently implemented in Russia, our calculations demonstrate that such a deliberate anti-alcohol policy still has an immense demographic potential and will have a very significant long-term demographic impact (see Fig. A7.13 and Table A7.2):

Fig. A7.13. Scenario of full-scale anti-alcohol policy in comparison with the inertial and alcohol-pessimistic scenarios of the Russian population dynamics, till 2040, millions

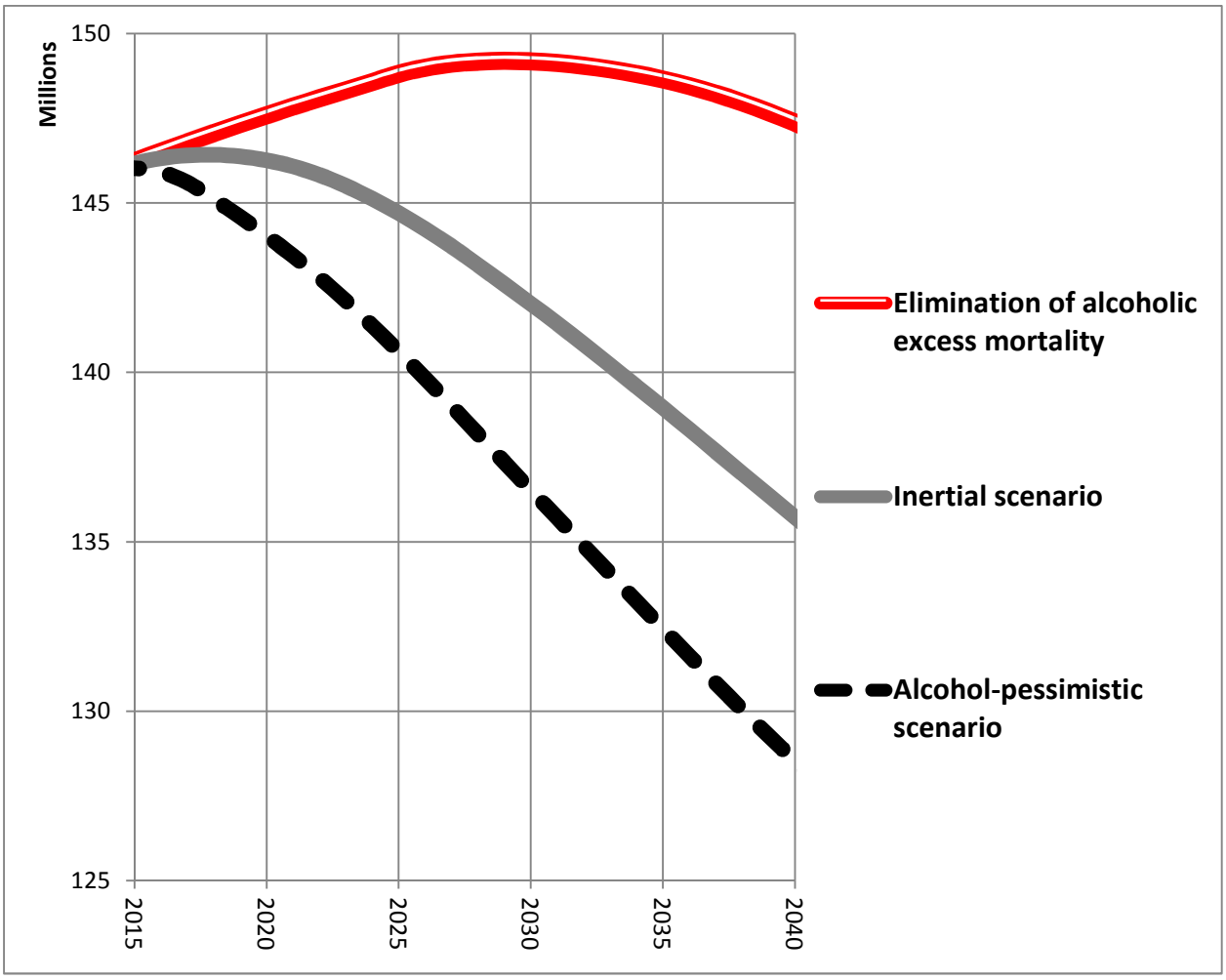


Table A7.2. Population projections for Russia under the "alcohol-pessimistic" and "full-scale alcohol policy" scenarios, millions, for 2015-2040 ("Issue price" in human lives)

Year	Projected population of Russia, mln		"Alcohol-pessimistic" scenario "price" in the number of "additional" deaths as compared to the Full-scale alcoholic policy scenario
	alcohol-pessimistic scenario (millions)	Full-scale alcoholic policy scenario (millions)	
2020	**147.6**	**144.0**	**3.6**
2030	**136.5**	**149.2**	**12.7**
2040	**128.5**	**147.4**	**18.9**

These estimates demonstrate the enormous demographic potential of standard alcohol control measures recommended by the World Health Organization for the future of our country.[186]

Implementation of these affordable and even profitable measures (such as increasing excise duties on spirits or the introduction of a state monopoly on retail sales of alcohol) may save up to **19 million lives** by 2040.[187] Thus, in the short and medium term the alcohol control policy may have an even greater demographic impact than the policy of supporting the birth rate (though in a long run a fertility support policy is significantly more effective).

THE FORECAST EFFECT OF COMPLETE ELIMINATION OF RUSSIAN EXCESS MORTALITY

Total elimination of Russian extreme mortality would have an especially significant long-term demographic effect. Such results may be achieved through policies including anti-alcohol and anti-tobacco measures, as well as radical improvement of the Russian health care system by increasing the financial allocation for health care to at least 10% of GDP.

This effect was modeled by a smooth (for 10 years) transition of the age-specific mortality rates in Russia to reach the corresponding values of Norway in 2009 (this scenario does not imply that by 2020 Russia will overtake Norway; it only starts with the assumption that Russia will be converging to Norway, reaching by 2020 the Norwegian level of 2009, so this scenario is not excessively optimistic).[188]

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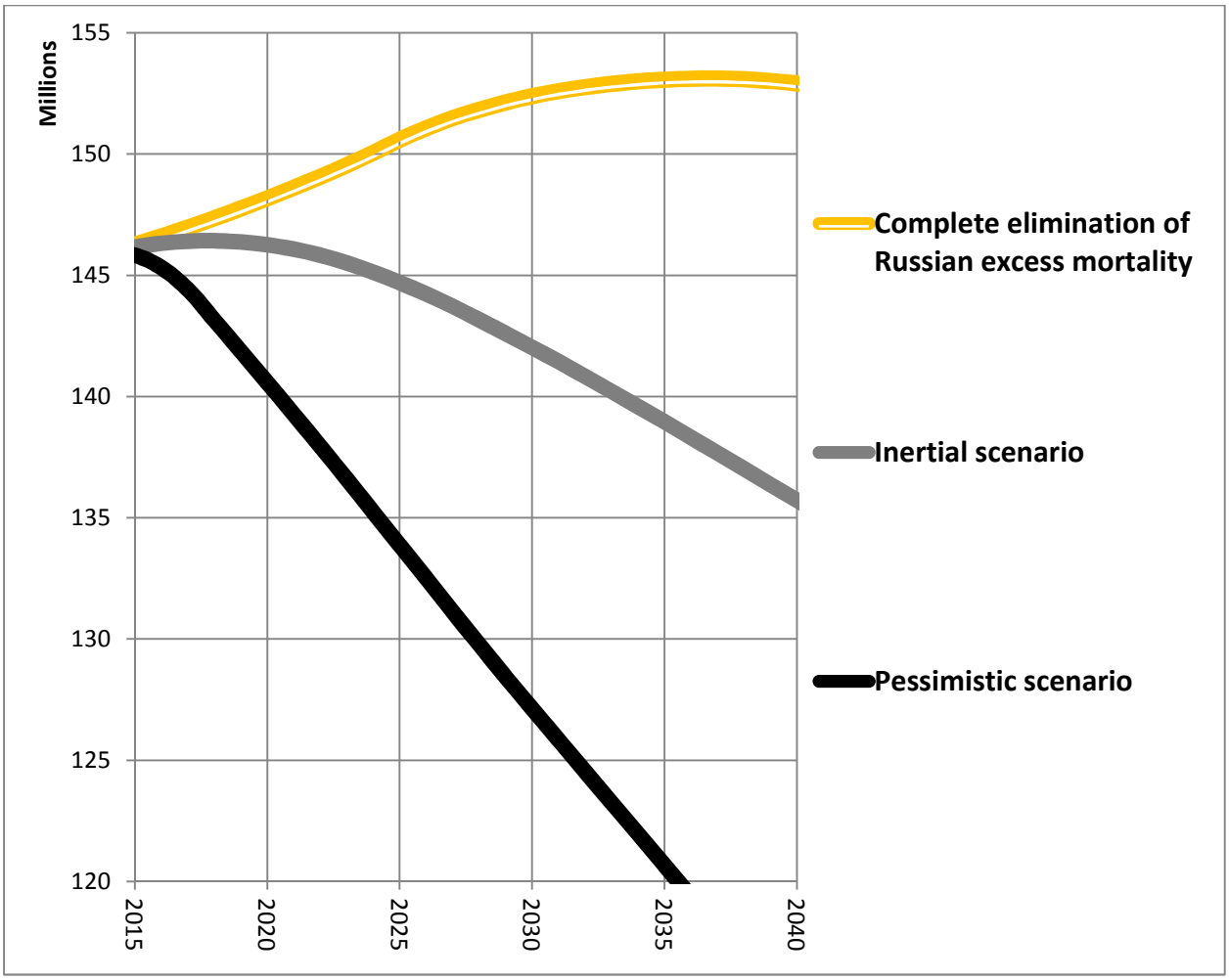
[186] Дёмин А., Коротаев А. В., Халтурина Д. А. *Злоупотребление алкоголем в Российской Федерации: социально-экономические последствия и меры противодействия. Доклад Общественной Палаты Российской Федерации*. М.: Общественная Палата Российской Федерации, 2009.

[187] In comparison with the scenario of the victory of the alcohol lobby. In comparison with the inertial scenario, the scenario of the complete elimination of the alcohol excessive mortality in Russia will save by 2040 lives of more than 11.5 million Russians.

[188] On the other hand, it is based on the assumption of maintaining the gender and age-specific fertility rates at the level of 2012, and at present this assumption may already be considered fairly optimistic.

Fig. A7.14. Scenario of complete elimination of Russian excess mortality in comparison with the inertial and pessimistic scenarios of the Russian population dynamics, till 2040, millions

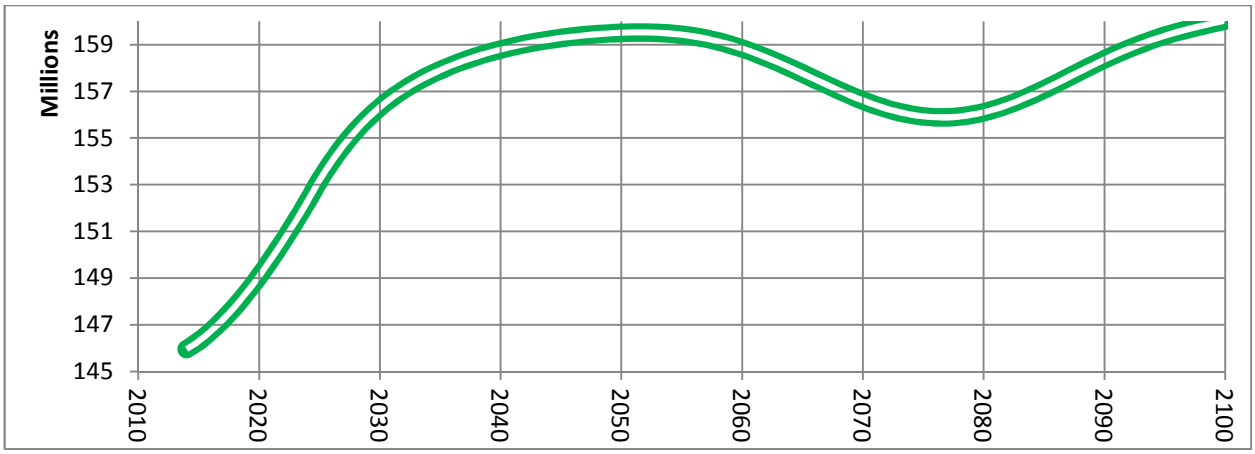


As we can see the complete elimination of Russia's excessive mortality may provide a more significant effect in the short and medium term than fertility support. Nonetheless, because of the small birth cohorts of the 1990s, whose effect will be magnified over time if they too give birth to small cohorts (e.g. have low fertility) the elimination of Russia's high mortality cannot, by itself, prevent an eventual return to population decline. If extreme mortality is eliminated, but fertility is preserved as it was in 2012, the Russian population will keep growing only until the mid 2030s. It would then start shrinking in the late 2030s, and this decline would accelerate thereafter.

THE COMBINATION OF MEASURES THAT CAN PREVENT DEPOPULATION. THE 'MOST OPTIMISTIC' SCENARIO.

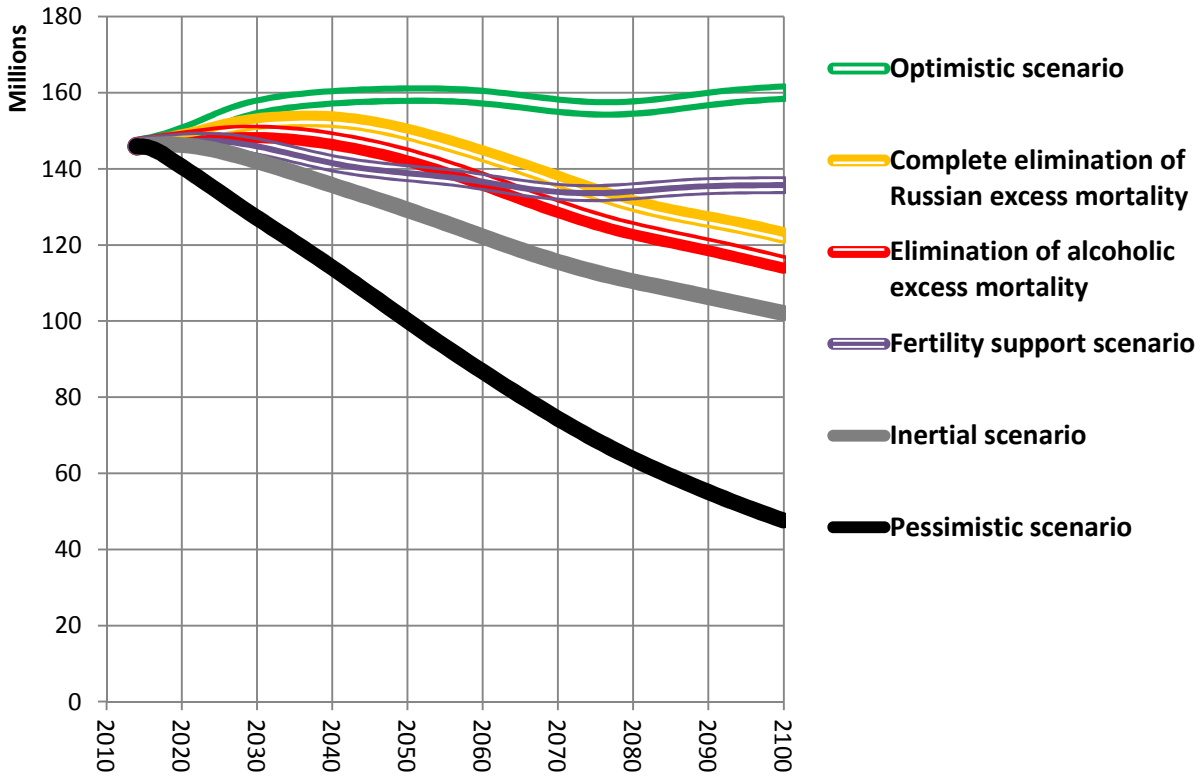
Only the combination of an effective fertility support system and the elimination of Russia's excessively high mortality ("the best case scenario") may fully avert the looming threat ofdepopulation. It is worth noting that even under the optimum scenario the effects of the demographic hole of the 1990s will be felt in the 2040s as the small generation of the children born to the mothers born in the 1990s will reach their reproductive age. Nevertheless, in the most optimistic scenario future population decline would be averted, and in the future the Russia's population will stabilize at a level slightly higher than today's: (Fig. A7.15):

Fig. A7.15. Optimum demographic scenario of the dynamics of the Russian population (combination of an effective system of fertility support measures and the elimination of the Russian excess mortality), millions, 2015–2100



It is time to compare the optimistic forecast with the other scenarios of Russia's demographic future (Fig. A7.16):

Fig. A7.16. Forecast scenarios of the demographic future of Russia, projected dynamics of the population of the Russian Federation in 2015–2100, millions



As we can see in Figure A7.16, there is a huge gap between the "lower" ("pessimistic") and the "upper" ("optimistic") scenarios. This is a gap of over 100 million human lives. This estimate gives an idea of the price of decisions made today. The forecast calculations for the period up to 2100 show that the birth support measures have the highest impact on the demographic future in the long run. However, in the short and medium term, the anti-mortality measures are the most effective (in particularly the measures targeting alcohol-related mortality). As a whole, according to our forecast calculations, the demographic future of Russia can be secured only with *both* the

elimination of excessive mortality and with continued improvement in fertility toward full replacement rates (e.g. fertility 2.0 or higher).

For this to occur, current attitudes must be changed. Today the availability of alcohol is increasing instead of being curbed. At the same time the country is facing a new crisis while no new measures to provide stronger support for fertility support are expected.

A DEMOGRAPHIC MANEUVER: ADDITIONAL REVENUES FROM ALCOHOL AND TOBACCO CAN STIMULATE THE REDUCTION IN MORTALITY AND THE GROWTH OF FERTILITY

There is a demographic maneuver than can be undertaken to reduce mortality and stimulate fertility, and at the same time reduce smoking and alcohol consumption, save 300-400 thousand lives a year and ensure the growth of budget revenues. An increase in excise duties, by itself an unpopular measure, should be linked with measures to support families with children. It is recommended to create a Trust Fund, funded by higher excise taxes on alcohol and tobacco, to support family and health.

The Fund should provide funding for the following areas:

- to secure the opportunity for families to purchase housing with mortgage loans at 5% interest rate after the 2nd birth (through the Agency for the Mortgage Crediting [АИЖК]);
- to secure the opportunity for families to purchase housing with mortgage loans at zero interest rate after the 3nd birth (through the Agency for the Mortgage Crediting [АИЖК]);
- to ensure 100% availability of pre-school education and childcare for children from 1 to 7;
- co-financing of regional programs for prevention and reduction of cardiovascular disease in areas with a high mortality rate in their working age population;
- co-financing of regional programs of housing rent subsidies for families with children;
- additional social support for families with children in regions with unfavorable demographic situations.

During the economic crisis the Foundation of Family and Health Support could ensure the implementation of additional measures of supportive demographic policy, and contribute to ensuring sustainable growth of population after the crisis.

There are no ‘magic bullets’ to easily solve Russia’s demographic problems, which are the result of decades of economic ups and downs and shifts in policy. However, establishing a Trust Fund for family support and national health, increasing taxes on alcohol and tobacco, and using those funds for pro-fertility programs, is a policy that would achieve several goals at once without imposing additional cost on the current budget. It would also focus attention on long-term planning to resolve the problems that threaten Russia’s demographic future.

As the earlier sections of the Report have shown, Russia enjoyed great success with its policies to promote fertility and reduce mortality in the last seven years. However, it would be a foolish and costly mistake to believe those successes had ‘solved’ Russia’s long-term demographic problems. Quite the reverse; they were only a promising ‘down payment’ on the policies needed to truly put Russia’s long-term demographic future on a secure course. Without continuing and expanding the present policies, that future security will dissolve. Worse yet, the policies currently being considered to boost access to alcohol will almost certainly reverse recent progress and set Russia back upon a path of inevitable demographic decay.

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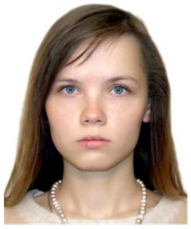

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